

Sustainability Appraisal of the Worcestershire Minerals Local Plan Appendices: Volume 2

Fourth Stage Consultation

Prepared by LUC November 2018

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Appendix 7 Appraisal Matrices for Building Stone Area of Search Options

HSBQ1: Sandbourne Quarry

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is not contained or situated within 1.5km of an AONB. However, it is situated within 1.5km of Ribbesford House, a locally important park and garden and West Midlands Safari Park is located to the east of the search area. There is a PROW that passes the area, around the edge of the woodland, and this could be sensitive to landscape change.
inipact.	-?	This area is part of the Sandstone Estatelands land cover parcel. There are a number of landscape characteristics of Sandstone Estatelands that could be incompatible with mineral development. These include the dominance of arable farming and hedgerow field boundaries. Overall, a minor negative effect with uncertainty is likely, as effects depend on the location and size of the mineral developments.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	This area of search is located within close proximity of Devil's Spittleful SSSI. It is also located within 1.5km of three Local Geological Sites (Blackstone Rock, Bark Hill and Bewdley Road Cutting West) and two Local Wildlife Sites (Blackstone Rock and Mucky Marsh Meadow and River Severn). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This area of search is adjacent to Bewdley Conservation Area. As such, there is potential for minerals development to compromise this historic environment asset. There is likely to be sufficient tree coverage between the area of search and two Grade II listed buildings 340m to the north east to suggest that these historic environment assets are unlikely to be significantly compromised by intervisibility with minerals development. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	This area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies within Source Protection Zone 3 and is adjacent to the residential area of Bewdley. In addition, the area of search is located on the A456 which leads into the AQMA in central Kidderminster. Mineral development in this area of search could lead to increased traffic in the AQMA. It can be assumed that mineral development will be contained within the railway line and A456, so therefore would not be adjacent to the nearby lake. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area is within Bewdley and in close proximity to Kidderminster, both of which could be potential markets. This area of search will likely require the use of heavy fossil-fuelled vehicle haulage due to there being no access to sustainable transport links. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. The area lies within woodland, so it is likely that there will be a net loss of significant tree cover. Overall, a significant negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. If this were to be severed or re-directed, it may affect the ability of residents in Catchems End to access the schools south of the site. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity		The residential area of Bewdley is located within 100m of the search area, which could be sensitive to noise, dust and other emissions from a potential mineral development. Therefore, a significant

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the health and well-being of the population and reduce inequalities in health.		negative is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ2: Bewdley Station Quarry East

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is not contained or situated within 1.5km of an AONB. However, it is situated within 1.5km of West Midlands Safari Park which is located to the east of the search area. There is a PROW that passes the area, around the edge of the woodland, and this could be sensitive to landscape change.
- Tripacci	-?	This area is part of the Sandstone Estatelands land cover parcel. There are a number of landscape characteristics of Sandstone Estatelands that could be incompatible with mineral development. These include the dominance of arable farming and hedgerow field boundaries. Overall, a minor negative effect with uncertainty is likely, as effects depend on the location and size of the mineral developments.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	This area of search is located within close proximity of Devil's Spittleful SSSI. It is also located within 1.5km of three Local Geological Sites (Blackstone Rock, Bark Hill and Bewdley Road Cutting West) and two Local Wildlife Sites (Blackstone Rock and Mucky Marsh Meadow and River Severn). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This area of search is adjacent to Bewdley Conservation Area. As such and is within 1.5 km of Ribbesford House, a locally important park and garden. There is potential for minerals development to compromise these historic environment assets. There is likely to be sufficient tree coverage between the area of search and two Grade II listed buildings 340m to the north east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previouslydeveloped land and reuse of vacant buildings,	-	The area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

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Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies within Source Protection Zone 3 and is adjacent to the residential area of Bewdley. Access points to the area of search are likely to be located on the A456, which leads into the AQMA in Kidderminster. Mineral development in the search area could lead to increased traffic in the AQMA. It can be assumed that mineral development will be contained within the railway line and A456, so therefore would not be adjacent to the nearby lake. Therefore, a minor negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area is within Bewdley and in close proximity to Kidderminster, both of which could be potential markets. This area of search will likely require heavy fossil-fuelled vehicle haulage due to there being no access to sustainable transport links. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. In addition, the area lies within woodland, so it is likely that there will be a net loss of significant tree cover. Overall, a significant negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. If this were to be severed or re-directed, it may affect the ability of residents in Catchems End to access the schools south of the site. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity		The residential area of Bewdley is located within 100m of the search area, which could be sensitive to noise, dust and other emissions from a potential mineral development. Therefore, a significant

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the health and well-being of the population and reduce inequalities in health.		negative is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, a no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search is likely to require road-based movement by HGVs. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, a no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ3: Lodge Quarry, Spring Grove

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	This area of search is not contained or situated within 1.5km of an AONB. However, West Midlands Safari Park is located to the south east of the search area, which could be a sensitive receptor. This area is part of the Sandstone Estatelands land cover parcel. There are a number of landscape characteristics of Sandstone Estatelands that could be incompatible with mineral development. These include the dominance of arable farming and hedgerow field boundaries. Overall, a minor negative effect with uncertainty is likely, as effects depend on the location and size of the mineral
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	This area of search is located within close proximity of Devil's Spittleful SSSI. It is also located adjacent to a Local Geological Site (Bewdley Road Cutting West) and within 1.5km of another Local Geological Site (Bewdley Road Cutting East). Three Local Wildlife Sites (Habberley Valley, Wassel Wood and River Severn) and a Local Nature Reserve (Habberley Valley) lie within 1.5km of the area. Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	The area of search is situated within 1.5km of Ribbesford House, a locally important park and garden. This area of search is adjacent to a Grade II listed building (Gates and Gate Piers). As such, there is potential for minerals development to significantly compromise this historic environment asset. Whilst there is sufficient tree coverage to reduce the potential for inter-visibility between the area of search and surrounding Grade II listed buildings, there is potential that minerals development could significantly compromise these historic environment assets through noise and dust disturbance. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	-?	The area of search lies within Source Protection Zone 3 area and is adjacent to an outdoor sports/recreation facility. In addition, the search area is located on the A456, which leads into the AQMA in central Kidderminster. Development here could lead to increased traffic in the AQMA. There is uncertainty whether sensitive receptors are adjacent to a mineral development. Therefore, a minor negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is within Bewdley and in close proximity to Kidderminster, both of which could be potential markets. There is not a water link located within or adjacent to this area of search. As such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain and is not adjacent to any Public Rights of Way. Whilst the area of search is adjacent to a road, it is assumed that this would be retained during minerals development and the ability of people to access health, educational or other key local services in the settlement of Bewdley would not be compromised. Therefore, a negligible effect is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the	?	The area of search is located within 100m of a sports/recreation facility, which could be impacted by noise, dust or other emissions. Therefore, a significant negative effect with uncertainty is likely as the

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		effects on the sensitive receptor depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ4: Dodford Brick Works

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search does not contain or lie within 1.5km of an AONB. In addition, there are no sensitive receptors within or adjacent to this area of search.
and quality and minimise negative visual impact.	-?	The area of search lies within a principal timbered farmland land cover type. Landscape characteristics that could be incompatible with mineral development include ancient woodland and a thick oak tree cover and field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	This area of search is located within close proximity to two SSSIs (Oakland Pasture and Feckenham Forest). It is also located within 1.5km of three Local Wildlife Sites (Greta Dodford Meadows, Dodford Dingle, and Chaddesley & High Woods Complex). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain and is not adjacent to any national historic environment sites or Conservation Areas. However, there is potential for inter-visibility between the area of search and two Grade II* listed buildings, multiple Grade II listed buildings and Dodford Conservation Area around 200-400m to the north which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	This area of search consists of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is outside of a Source Protection Zone and does not lie adjacent to a waterbody. There area of search is adjacent to a sensitive receptor and could lead to increased traffic in the Lickey End/Bromsgrove AQMA. Therefore, a minor negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area is in close proximity to Bromsgrove, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. In addition, minerals extraction in this area of search is expected to include land currently within woodland, so it is likely that there will be a net loss of significant tree cover. Overall, a significant negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain or is adjacent to any Public Rights of Way. Whilst the site is adjacent to a primary school, it has been assumed that existing roads will be retained and therefore the site will not be a physical barrier to accessing this facility. Therefore, a negligible effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		Dodford Primary School is situated within 100m of the area of search, which could be impacted by noise, dust or emissions from a potential mineral development. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ5: Bumble Hill Lane

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search does not contain or lie within 1.5km of an AONB. In addition, there is a PROW that crosses the area of search.
and quality and minimise negative visual impact.	-?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within close proximity to Oakland Pasture SSSI. It is also located within
Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	1.5km of two Local Wildlife Sites (Great Dodford Meadows and Dodford Dingle). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites or Conservation areas. There is potential for inter-visibility between the area of search and a Grade II
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	listed building (Keble House) 250m to the north which may significantly compromise this historic environment asset. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search consists of Grade 2 agricultural land and lies entirely within the Green Belt.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search lies within Source Protection Zone 3. The search area is located adjacent to the M5 junction, which leads to the AQMA on the M42 and A1 roundabout. Development at this site could lead to increased traffic into the AQMA. There are no sensitive receptors within or adjacent to the site. Overall, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area is in close proximity to Bromsgrove, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. In addition, minerals extraction in this area of search is expected to include land currently within woodland, so it is likely that there will be a net loss of significant tree cover. Overall, a significant negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools to the north east in Catshill or health, educational or other key local services to the south east in Bromsgrove. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-	There appears to be an employment site adjacent to the land parcel. As there is a less sensitive receptor within 100m of this area of search, a minor negative effect is likely.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ6: Cherrytree Farm

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape		The area of search does not contain or lie within 1.5km of an AONB.
Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is also located within 1.5km of three Local Wildlife Sites (Tardebigge Reservoir,
Conserve and enhance Worcestershire's biodiversity and geodiversity.	-?	River Salwarpe and Worcester and Birmingham Canal). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. However, there is potential for inter-visibility between the area of search and two Grade II listed buildings (The Dusthouse and Front Garden Wall) 280m to the east and Worcestershire and Birmingham Canal Conservation area 380m to the south which could significantly compromise these historic environment assets. Additionally, Hewell Grange, a Grade II* listed historic park and garden is located within 1.5km of the area of search. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search is located within Source Protection Zone 3. There are no AQMAs near the site that would likely be impacted by increased traffic from a mineral extraction area. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding		The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access health, educational or other key local services to the west in Bromsgrove. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There are no sensitive or less sensitive receptors within 100m nor is there an airport with 13km of the land search area. Therefore, no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ7: North Hadley Quarry

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	The area of search does not lie within an AONB. There is a network of PROWs adjacent to the search area. The area of search lies within a principal timbered farmland land cover type. Landscape characteristics that could be incompatible with mineral development include ancient woodland and a thick oak tree cover and field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	This area of search is located within close proximity to Westwood Great Pool SSSI. It is also located within 1.5km of a Local Geological Site (Hadley Quarry) and four Local Wildlife Sites (Knight's Grove, Gardener's Grove, Nunnery Wood Ponds, and Hadley, Elmley & Hockley Brooks). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is adjacent to a national historic park and garden (Westwood Park). There is also potential for inter-visibility between the area of search and two Grade II listed buildings (Miller's House and Hadley Mill) 90m to the south and two Grade II listed buildings (Shoulstone's Farmhouse and barn) 220m to the south west which may significantly compromise these historic environment assets. Additionally, Westwood Park, a Grade II listed national historic park and garden is located within 1.5km of the area of search. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	The area of search lies within Grade 3 Agricultural Land. Therefore, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is not located within a Source Protection Zone or adjacent to an AQMA. However, there is a minor river and a PROW adjacent to the area of search. Therefore, a significant negative effect with uncertainty is likely, as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Droitwich Spa, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding		The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Therefore, a minor negative effect with uncertainty is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	There is a PROW less than 100m from the search area, which could be sensitive to noise, dust and emissions from mineral extraction. As a result, a minor significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ8: Ombersley 2

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape		The area of search does not lie within an AONB or contain a registered park or garden.
Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	The area of search lies within a principal timbered farmland land cover type. Landscape characteristics that could be incompatible with mineral development include ancient woodland and a thick oak tree cover and field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within close proximity to Grimley Brick Pitts SSSI. It is also located
Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	within 1.5km of a number of Local Wildlife Sites. Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites. However, there is potential for inter-visibility between the area of search and a Grade II listed building 450m to the south west which may significantly compromise this historic environment asset. Additionally, Ombersley Court, a Grade II listed national historic park and garden is located within 1.5km of the area of search. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	The area of search lies within Grade 3 Agricultural Land. Therefore, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.
SA5: Natural Resources	-	The area of search lies within Source Protection Zone 3. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
Protect and enhance water and air quality.		
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Droitwich Spa, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access a school to the north in Ombersley. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There is no airport within 13km or sensitive receptors within 100m of this search area. Therefore, no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education)	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on

Sustainability Appraisal Objectives	SA Score	Potential effects
Raise the skills levels of qualifications of the workforce.		the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ9: Quarry Field

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search does not lie within an AONB. There is a PROW adjacent to this area, which could be adversely affected by minerals development.
and quality and minimise negative visual impact.	-?	This area is part of Sandstone Estatelands land cover parcel. Key characteristics that could be affected by mineral extraction are arable land uses and hedgerow field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	This area of search is located within close proximity to two SSSIs (Stourvale Marsh and Puxton Marshes). It is also located within 1.5km of a number of Local Wildlife Sites. Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is adjacent to Wolverley Conservation Area. As such, there is potential for minerals development to compromise this historic environment asset. In addition, Sionhill House, a locally important park and garden, is located within 1.5km of the area of search. Despite tree coverage between the area of search and multiple Grade II and Grade II* listed buildings 320m to the north east, minerals development may cause the loss of parts of this wooded area creating a possibility of inter-visibility which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		This area of search lies entirely within the Green Belt. Therefore, minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-	The search area lies within Source Protection Zone 3. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area is in close proximity to Kidderminster, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. In addition, the area lies within woodland, so it is likely that there will be a net loss of significant tree cover. Overall, a significant negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain or is adjacent to any Public Rights of Way. Whilst the area of search is adjacent to a road, it is assumed that this would be retained during minerals development and that the ability of people to access schools to the south east and north would not be compromised. Therefore, a negligible effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There is no airport within 13km or sensitive receptors within 100m of this search area. Therefore, no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ10: Worms Ash, Quarry Close

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search does not contain or lie within 1.5km of an AONB. However, there is a PROW situated within the area of search.
and quality and minimise negative visual impact.	-?	The area of search lies within a principal timbered farmland land cover type. Landscape characteristics that could be incompatible with mineral development include ancient woodland and a thick oak tree cover and field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	This area of search is located within close proximity to Oakland Pasture SSSI. It is also located within 1.5km of two Local Wildlife Sites (Great Dodford Meadows and Dodford Dingle). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. There is potential for inter-visibility between the area of search and a Grade II listed building 190m to the north east which may significantly compromise this historic environment asset. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-	This area of search lies within Source Protection Zone 3. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and -low-carbon sources.	-	The area is in close proximity to Bromsgrove, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain or is adjacent to any Public Rights of Way. Therefore, no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There is no airport within 13km or sensitive receptors within 100m of this search area. Therefore, no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ11: Burcot, Quarry Meadow

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search does not contain or lie within 1.5km of an AONB and there are no sensitive receptors adjacent to the search area.
and quality and minimise negative visual impact.	-?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search falls within an SSSI Impact Risk Zone and is located within close proximity to two
Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	SSSIs (Stourvale Marsh and Puxton Marshes). It is also located within 1.5km of one Local Wildlife Site (Burcot Lane Meadow). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. However, there is potential for inter-visibility between the area of search and a
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	Grade II listed building (Finstall House) 280m to the south east to significantly compromise this historic environment asset. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is consists of Grade 3 agricultural land and lies entirely within the Green Belt.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search lies within Source Protection Zone 3. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area does not contain or is adjacent to any Public Rights of Way. Therefore, no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There are no sensitive or less sensitive receptors within 100m of this search area. Neither is there an airport within 13km of the search area. Therefore, no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ12: Burcot, Quarry Close

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search does not contain or lie within 1.5km of an AONB, nor are there any sensitive receptors adjacent to the search area.
and quality and minimise negative visual impact.	-?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	This area of search is located within close proximity to two SSSIs (Stourvale Marsh and Puxton Marshes). It is also located within 1.5km of one Local Wildlife Site (Burcot Lane Meadow). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. However, there is potential for inter-visibility between the area of search and four Grade II listed buildings 370m to the north west which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		The area of search consists of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search lies within Source Protection Zone 3. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove, which could be a potential market. It is likely that heavy fossil-fuelled vehicle haulage will be required to transport minerals as there is no access to more sustainable transport links. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain or is adjacent to any Public Rights of Way. Therefore, no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There are no sensitive receptors within 100m of this area of search. As such no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search may require road-based movement by HGVs as there is no access to sustainable modes of transport within or adjacent to the area. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

HSBQ13: Burcot, Quarry Piece

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search does not contain or lie within 1.5km of an AONB. Both Bromsgrove golf course and a PROW are contained within or adjacent to the area.
and quality and minimise negative visual impact.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	?	This area of search is located within close proximity to Burcott Lane Cutting SSSI. It is also located within 1.5km of two Local Wildlife Sites (Burcot Lane Meadow and Spadesbourne Brook). Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. There is sufficient tree coverage and residential development between the area of search and four Grade II listed buildings 700m to the north east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is consists of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies within Source Protection Zone 3 and is adjacent to a sensitive receptor. Therefore, a minor negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding		The area is not within Flood zone 3, therefore a negligible effect is likely for this objective.
Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access health, educational or other key local services to the west in Bromsgrove. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		There is no airport located with 13km of this area of search. However, Bromsgrove golf course is located within 100m of the land search area, which could be impacted by noise, dust and emission from a potential mineral development. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area would likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located within 250m of an area allocated for the provision of housing. Therefore, no effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Appendix 8 Appraisal Matrices for Brick Clay Area of Search Options

CLAY1

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		. This area of search contains a PROW situated within the eastern side of the area, which could be sensitive to landscape and visual changes.
and quality and minimise negative visual impact.	?	The area of search lies within a principal timbered farmland land cover parcel. Characteristics that could be incompatible with developments include the dense ancient woodland located in the north and western boundaries of the area of search. The southern boundary of the search area lies within a riverside meadows land cover which is characterised by floodplains used for pastoral grazing. Depending on the location of a mineral development in the land search area, there is potential for the landscape to be compromised. Therefore, a significant negative effect with a degree of uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Grimley Brick Pits SSSI. It contains two Local Wildlife Sites (Bournes Dingle and Turnmill Pond Complex, and River Salwarpe), and is located within 1.5km of a number of other Local Wildlife Sites and one Local Geological Site (Church Farm North). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains a Grade II (Hawford House) and Grade II* listed building (Dovecote) and is adjacent to Droitwich Canal Conservation Area. As such, there is potential for minerals development to significantly compromise these historic environment assets. Additionally, the area of search lies within 1.5km of a nationally registered historic park and two locally important park and gardens. These include, Ombersley Court, Hindlip Park and Thorngrove Stinton Green Grimley. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search is comprised of a mix of Grade 2 and Grade 3 classified agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is located adjacent to the Droitwich Bridge Canal and a River Severn tributary. The impact of mineral development could contaminate water bodies. In addition, the north eastern corner of the search area lies within a Source Protection Zone 3. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Worcester which could be a potential market. It is not located within close proximity to a railway. However, the presence of rivers and canals suggests that potentially suitable water links are available within the area, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	-?	The south eastern and southern borders of this area of search are within flood zone 3, therefore a minor negative effect with uncertainty is likely.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the south in Worcester. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	This search area is not located with 100m of any sensitive or less sensitive visual receptors. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals development in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for brick clay which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

CLAY2

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		Pipershill and Dofferhill common land and open spaces are located inside the area of search. Both Route 45 and 46 of the national cycling network are contained within the search area and there is a network of PROWs that cover the entirety of the area of search.
and quality and minimise negative visual impact.	?	The area of search lies within a principal timbered farmland land cover parcel where dense ancient woodlands are situated adjacent to and within the area of search boundaries. A minority of the search area on the eastern side lies within wooded estatelands, which is characterised by large discrete blocks of woodland. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search contains a number of Local Wildlife Sites. It also lies directly adjacent to a number of SSSIs including Chaddesley Woods National Nature Reserve. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains over 40 Grade II listed buildings, multiple Grade II* listed buildings, Droitwich Canal Conservation Area and is adjacent to multiple Grade II and Grade II* listed buildings. The area of search also contains a number of registered parks and gardens including Westwood Park and Hanbury Hall. As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-?	The bulk of the search area is classified Grade 3 agricultural land and small pockets of Grade 2 classified land are dispersed across the area. The majority of the area of search lies within the Green Belt, the south western corner of the search area is situated just outside of it. Therefore, a minor negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is located outside of a Source Protection Zone. There is a network of minor rivers and canals across the entirety of the area of search and a number of adjacent sensitive receptors. In addition, a section of the Worcester Road AQMA, on the M5 and A38 junction, is located within the area of search. The introduction of a mineral development could add to the traffic within the AQMA. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search surrounds Wychbold and is adjacent to Droitwich Spa and Bromsgrove, all of which could be potential markets. The presence of rivers and canals suggests that there are potentially suitable water links available that could be used to transport minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	-?	This area of search is within flood zone 3. Overall, a minor negative effect with uncertainty is likely, as the effect depends on where minerals are extracted from within the area.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. There is potential for minerals development to significantly compromise the ability of people to access health, educational and other key local services in the settlements of Bromsgrove and Droitwich spa through a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	There are a number of sensitive receptors situated within the boundaries of the area of search. These include; four schools, two residential areas and numerous open and recreational spaces. In addition there are two electricity transmission lines that pass through the parcel. Therefore, a significant

Sustainability Appraisal Objectives	SA Score	Potential effects
		negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search contains Tickeridge Farm landfill site, Hartlebury landfill site, Waresley Quarry landfill site, Hartlebury EFW thermal treatment works, A-Z Skips waste transfer station, and Droitwich household waste recycling centre. The area of search also lies adjacent to the Potter Group Premises waste transfer station, and Bromsgrove waste transfer station. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	?/+	This area of search is located adjacent to two areas allocated for employment development. However, any new minerals extraction in the area is likely to provide new employment opportunities. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of minerals development.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is located adjacent to and within 250m of multiple areas allocated for the provision of housing, therefore minerals development could compromise residential amenity of these. However, area of search is being worked for brick clay which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of minerals development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

CLAY3

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search does not contain nor is it located with 1.5km of an AONB. The land parcel contains five PROWs, which could be sensitive to landscape and visual changes. In addition, there is an OS open space and Sports England site adjacent to the area of search.
impact.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. There is woodland adjacent to the western boundary of the land parcel. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to Feckenham Forest. It is also located within close proximity of three SSSIs (Hurst Farm Pasture, Feckenham Forest, and Little Royal Farm Pastures) and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. However, there is potential for inter-visibility between the area of search and two Grade II buildings (Fairfield House and barn) 130m to the north east which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is made up of Grade 3 agricultural land and the entirety of the area of search lies within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated outside a Source Protection Zone and there are no AQMAs or water bodies adjacent to the land parcel that could be impacted by mineral extraction. However, it contains PROWs and is adjacent to a number of sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove and Catshill, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	This area of search does not fall within flood zone 3. Overall, a negligible effect is likely.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the north east or schools to the south east in Catshill. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The village envelopes of Bournheath and Fairfield are both located within 100m of the area of search, where they could be impacted by dust, noise and emission from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals development in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for brick clay which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

CLAY4

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search does not contain nor is it located with 1.5km of an AONB. The area is adjacent to a PROW footpath, which could be sensitive to landscape and visual changes.
and quality and minimise negative visual impact.	-?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to two SSSIs (Feckenham Forest and Oakland Pasture). It is also located within close proximity to three Local Wildlife Sites (Great Dodford Meadows, Dodford Dingle, and Chaddesley & High Woods Complex). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area does not contain or is adjacent to any national historic environment sites or Conservation Areas. There is potential for inter-visibility between the area of search and three Grade II listed
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	buildings 580m to the south which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The majority of the search area is classified Grade 3 agricultural land, and the north eastern corner of
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	the area is made up of Grade 2 listed agricultural land. The entirety of the area of search lies within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	0	The area of search is situated outside a Source Protection Zone and there are no AQMAs or water bodies adjacent to the land parcel that could be impacted by mineral extraction. As a result no effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	This area of search does not fall within flood zone 3. Overall, a negligible effect is likely.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area and is also adjacent to another Public Right of Way. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services in Bromsgrove to the south east. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There are no sensitive or less sensitive receptors located within 100m of the area of search. Therefore no effect is likely.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals development in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for brick clay which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

CLAY5

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		Bromsgrove Cricket, Hockey and Tennis Club, a Sports England site is located within the area of search. In addition, several PROW footpaths and Route 5 of the National Cycling Network are also situated inside the land parcel, where they could be sensitive to landscape changes.
and quality and minimise negative visual impact.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within 1.5km of three Local Wildlife Sites (Tardebigge Reservoir, River
Conserve and enhance Worcestershire's biodiversity and geodiversity.	-	Salwarpe, and Worcester and Birmingham Canal). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a minor negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. However, there is potential for inter-visibility between the area of search and
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	Grade II listed buildings around 400m to the south along the Worcester and Birmingham canal which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The entirety of the area of search lies within the Green Belt. Therefore, a minor negative effect is
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.		The area of search lies adjacent to both a Source Protection Zone 1 and zone 2 areas. In addition, a minor river is contained in the parcel and there are a number of adjacent sensitive receptors. As a result of both these circumstances, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is adjacent to Bromsgrove, which could be a potential market. This area is within close proximity of water links which could potentially be used to transport minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	This area of search does not fall within flood zone 3. Overall, a negligible effect is likely.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development may lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the north west in Bromsgrove. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	There is an outdoor recreation/sport facility and a number of PROWs contained in the area of search. In addition, there a sensitive receptors within 100m of the search area, in the form of residential properties in Bromsgrove. All of which could be impacted by noise, dust and emission from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search lies within 250m of Bromsgrove waste transfer station. A minor negative effect is therefore likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals development in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is located adjacent to an area allocated for the provision of housing, therefore minerals development could compromise residential amenity of these. However, the area of search is being worked for brick clay which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search is not located within an AONB. The area does, however, border a residential dwelling and contain a PROW and part of an outdoor/recreation site.
and quality and minimise negative visual impact.	?	The area of search lies within a principal timbered farmland land cover type. Landscape characteristics that could be incompatible with mineral development include ancient woodland and a thick oak tree cover and field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies directly adjacent to a Local Wildlife Site (Worcester and Birmingham Canal). It is also within 1.5km of an SSSI (Hewell Park Lake) and a Local Wildlife Site (Brotherton's Wood & Meadow). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search lies directly adjacent to a number of Grade II listed buildings. The area of search also surrounds a Grade II listed building (Dial House Farmhouse) and lies within close proximity to some additional listed buildings outside of the Conservation Area (including the Grade II* listed Church of St Bartholomew). As such, there is potential for development within this area to compromise the historic environment assets. A significant negative effect is possible, although this is uncertain as it depends on where minerals are extracted from within the corridor.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	This area of search falls entirely within the Green Belt, and consists of Grade 3 agricultural land. Overall, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search does not fall within a Source Protection Zone or contain an AQMA. A minor river runs through the parcel and the Worcester and Birmingham Canal is adjacent to it. In addition, the area of search contains a number of sensitive receptors, including St Bartholomew's Church, a residential dwelling and a primary school. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search lies adjacent to the Worcester and Birmingham Canal. This suggests that suitable water links will potentially be available to transport minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Minerals development within this area of search is unlikely to require the net loss of significant tree cover. Overall, a minor positive effect with uncertainty is likely.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	This area of search does not fall within flood zone 3. Overall, a negligible effect is likely.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search contains a Public Right of Way and depending on where minerals are extracted, development could compromise the ability of people to access health, educational or other key local services by creating a physical barrier to these. Overall, there is potential for significant negative effects with uncertainty.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains part of St Bartholomew's Church religious grounds, and lies adjacent to St Bartholomew's. It also borders a residential dwelling, and is located adjacent to Tardebigge Church of England First School. Mineral extraction within 100m of these sensitive receptors could lead to noise, dust or other emissions. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. No effect is therefore likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for brick clay which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

CLAY7

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains two outdoor sports/recreation facilities, PROWS and allotments/community gardens. All of which could be sensitive to landscape/visual changes.
and quality and minimise negative visual impact.	?	This search area lies with the village farmland with orchards and principal village farmlands land cover types. Key characteristics that could be affected by mineral extraction are extensive apple and plum orchards on south facing slopes and nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Windmill Hill SSSI. It is also located within 1.5km of Cleeve Prior Bank Local Nature Reserve and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to multiple Grade II listed buildings and Harvington Conservation Area. As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The majority of the area of search lies within Grade 2 agricultural land, however the southern section
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	?	of the area lies within a mix of Grade 1 and 3. The extent of the impact of a mineral development depends on its location within the area. Therefore a significant negative effect with some uncertainty is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.		A minor river/tributary in to the River Avon is situated within the land parcel and a number of sensitive receptors are adjacent to the area of search. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area of search is adjacent to Harvington which could be a potential market. The presence of rivers suggests that potentially suitable water links are available within and adjacent to the area which could be used to transport minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	-?	The area of search is within flood zone 3. Overall, a minor negative effect with uncertainty is likely, as the effect depends on where minerals are extracted from within the area.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school next to the area in Harvington. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains or is with 100m of outdoor recreation facilities, PROWs and allotments/community gardens. Mineral extraction within 100m of these sensitive receptors could lead to noise, dust or other emissions. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is located adjacent to an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of these. However, the area of search is being worked for brick clay which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search does not contain or be located within 1.5km of an AONB. There are a network of PROWs contained within the land parcel and a golf course adjacent to the area.
and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located directly adjacent to Windmill Hill SSSI. It partially contains two Local
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Wildlife Sites (Windmill Hill & Harrow Hill Bank and Littleton Meadows) and lies directly adjacent to two other Local Wildlife Sites (Cleeve Prior Bank and River Avon). It is also located within 1.5km Harvington Carr Local Wildlife Site and Littleton, Broadway & Bafsey Brooks and Tributaries Local Wildlife Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search is adjacent to a scheduled monument (Anglo-Saxon cemetery at Bennett's Hill). As such, there is potential for minerals development to compromise this historic environment asset.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is potential for inter-visibility and noise and dust disturbance between the area of search and Offenham Conservation Area which contains 23 Grade II listed buildings and a Grade II* listed building around 800m to the west which may significantly compromise these historic environment assets. The same also applies to South Littleton Conservation Area around 600m to the east which contains multiple Grade II and Grade II* listed buildings and also Middle Littleton Conservation Area which contains a Grade I, a Grade II and two Grade II* listed buildings. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green	?	The area of search is comprised of Grade 1, 2 and 3 agricultural land. The extent of the impact of minerals development depends on its location within the area. Therefore, a significant negative effect with uncertainty is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
belt value, maximising use of previously- developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The River Avon and a number of sensitive receptors are situated adjacent to the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area of search is in close proximity to Harvington, Offenham, South Littleton and Evesham, all of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available within the area to transport minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	-?	This area of search is within flood zone 3. Overall, a minor negative effect with uncertainty is likely, as the effect depends on where minerals are extracted from within the area.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the west in Offenham and a school to the east in South Littleton. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the	?	This area of search lies within 100m of an outdoor recreation facility which could be impacted by noise, dust and emissions from a potential mineral development. Therefore, a significant negative

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for brick clay which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains or is adjacent to an outdoor recreational facility and a network of PROWs that cross the area.
and quality and minimise negative visual impact.	?	This search area lies with the village farmland with orchards and principal village farmlands land cover types. Key characteristics that could be affected by mineral extraction are extensive apple and plum orchards on south facing slopes and nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search falls within close proximity to a number of SSSIs (Cropthorne New Inn Section, Tunnel Hill Meadow and Highclere). It contains Rectors Pit Local Geological Site and lies within 1.5km
Conserve and enhance Worcestershire's biodiversity and geodiversity.		of a number of Local Wildlife Sites and another local geological site, Cropthorne Playing Field. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search is located adjacent to multiple Grade II listed buildings (Church of St John the Evangelist, Yew Tree Cottage, Church Cottages, Dovecote at Charlton House, Post Office and Cottage
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	and The Gardens) and is also adjacent to two scheduled monuments (Enclosures NE of Fernhill Farm and Settlement site NNE of Fernhill Farm). As such, there is potential for minerals development to significantly compromise these historic environment assets. There is also potential for inter-visibility and noise and dust disturbance between the area of search and Cropthorne Conservation area 200m to the west which contains a Grade I and multiple Grade II listed buildings and also Fladbury Conservation Area 380m to the west which contains a Grade I and multiple Grade II listed buildings. Minerals development could significantly compromise these historic environment assets. Additionally, the area of search is located within 1.5km of Wood Norton Hall, a locally important garden. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through	?	The area of search is comprised of Grade 1 and 3 agricultural land. The extent of the impact of minerals development depends on its location within the area. Therefore, a significant negative effect

Sustainability Appraisal Objectives	SA Score	Potential effects
safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		with some uncertainty is likely.
SA5: Natural Resources Protect and enhance water and air quality.	?	Merry Brook is located inside the area of search and the River Avon is adjacent its northern boundary. In addition, a number of sensitive receptors are adjacent to the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search surrounds Charlton, is adjacent to Cropthorne and is in close proximity to Evesham, all of which could be potential markets. This area is within close proximity water links that could potentially be used to transport minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	-?	This area of search is within flood zone 3. Overall, a minor negative effect with uncertainty is likely, as the effect depends on where minerals are extracted from within the area.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-	?	This area of search is located where a number of Public Rights of Way cross the area. There is potential for minerals development to significantly compromise the ability of people to access health, educational or other key local services in the settlement of Evesham through a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
economic status or educational attainment.		
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	There are sensitive receptors located within 100m of the area of search are the residential areas, Charlton and Cropthorne, and an outdoor recreational/sports facility. Mineral extraction within 100m of these sensitive receptors could lead to noise, dust or other emissions. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	-?/+	This area of search is located within 250m of an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of these. However, the area of search is being worked for brick clay which is used in housing construction. Overall, a minor negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains or lies adjacent to several PROWS, Route 3 of the National cycling Network, an outdoor sports/recreational facility and allotments and community gardens. In addition, there are several areas of registered common land that lie adjacent to the land parcel. These are Smithmoor Common, Uckinghall Meadow and Brockeridge Common.
impact.	?	The area is within settled farmlands on river terrace land cover parcel. A landscape characteristic that could be affected by mineral extraction is the extensive cropping/horticultural land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within close proximity to two SSSIs (Upton Ham and Earl's Croome
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Meadow). It is also located within 1.5km of a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains 17 Grade II listed buildings and is adjacent to a Grade I and multiple Grade II listed buildings and scheduled monument (Towbury Hill Camp). There is also potential for inter-visibility and noise and dust disturbance between the area of search and Upton-upon-Severn Conservation Area which contains multiple Grade II and Grade II* listed buildings 500m to the west which may significantly compromise these historic environment assets. As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	?	The area of search is comprised of Grade 1, 2 and 3 agricultural land. The extent of the impact of minerals development depends on its location within the area. Therefore, a significant negative effect with some uncertainty is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The River Severn and a minor river pass through the area of search. In addition, the land parcel is adjacent to a number of sensitive receptors. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area of search is adjacent to Ryall and in close proximity to Upton upon Severn and Tewkesbury, all of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available within and next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	-?	This area of search is within flood zone 3. Overall, a minor negative effect with uncertainty is likely, as the effect depends on where minerals are extracted from within the area.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way and a cycle route cross the area. There is potential for minerals development to significantly compromise the ability of people to access health, educational or other key local services in the settlements of Upton-upon-Severn and Tewkesbury through a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	Ryall and The Grove residential areas are both situated with 100m of the land parcel. In addition, the area of search contains an outdoors sports site and several PROWs. Mineral extraction within 100m of these sensitive receptors could lead to noise, dust or other emissions. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search contains Saxon's Lodge landfill site and lies directly adjacent to Grove House Farm waste transfer station. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is located adjacent to two areas allocated for the provision of housing, therefore minerals development could compromise residential amenity of these. However, the area of search is being worked for brick clay which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains several areas of common land, including Ashmoor Common, The Green and Normoor Common. In addition, there is a network of PROWs contained within the land parcel.
and quality and minimise negative visual impact.	?	The area is within settled farmlands on river terrace land cover parcel. A landscape characteristic that could be affected by mineral extraction is the extensive cropping/horticultural land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located directly adjacent to Ashmoor Common SSSI and within 1.5km of
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Napleton Meadow SSSI. The area of search contains Ashmoor Common Local Geological Site and two Local Wildlife Sites (Normoor Common and Clifton Arles). It is also located within 1.5km of a number of other Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains 15 Grade II listed buildings, a locally important park (The Nash) and is adjacent to seven Grade II listed buildings, a nationally registered historic park and garden (Pirton Park) and Kempsey Conservation Area. As such, there is potential for minerals development to significantly compromise these historic environment assets. There is potential for inter-visibility and noise and dust disturbance between the area of search and a Grade I and two Grade II listed buildings 150m to the north west which may significantly compromise these historic environment assets. The same also applies to multiple Grade II listed buildings and Grade II* listed building 150m to the south of the site. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	?	The area of search is comprised of Grade 1, 2 and 3 agricultural land. The extent of the impact of minerals development depends on its location within the area. Therefore, a significant negative effect with some uncertainty is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		This area of search contains or is adjacent to a minor river and the River Severn. In addition, it is adjacent to a number of sensitive receptors. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area of search is adjacent to Kempsey and in close proximity to Malvern Hills, both of which could be potential markets. However, the presence of rivers suggests that potentially suitable water links are available within and adjacent to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	This area of search is within flood zone 2. Overall, a negligible effect is likely.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. There is potential for minerals development to significantly compromise the ability of people to access health, educational or other key local services in the settlement of Worcester. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	Kempsey village is located within 100m from the area of search. There is a degree of uncertainty regarding the exact scale and location of a mineral development. As such, it is uncertain if sensitive receptors will be impacted from mineral development across the entirety of the area of search. Therefore, a significant negative effect with a degree of uncertainty is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is located adjacent to two areas allocated for the provision of housing, therefore minerals development could compromise residential amenity of these. However, the area of search is being worked for brick clay which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search is not within 1.5km of an AONB There is a PROW which crosses the middle of the parcel and a CRoW Access all areas is situated adjacent to the western boundary of the land parcel.
and quality and minimise negative visual impact.	?	The area is within settled farmlands on river terrace land cover parcel. A landscape characteristic that could be affected by mineral extraction is the extensive cropping/horticultural land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Napleton Meadow SSSI. It is also located within 1.5km of five Local Wildlife Sites (Kempsey Upper Ham, Kempsey Lower Ham, River Severn, Prior's Court Meadow and Old Hills & New Coppice). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. Whilst there is urban development between the area of search and Kempsey Conservation Area 200m to the south and east (contains a Grade I and multiple Grade II listed buildings) which reduces the possibility of inter-visibility with minerals development, there is still potential for these historic environment assets to be significantly compromised by noise and dust disturbance. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	?	The area of search lies primarily within Grade 1 agricultural land. Therefore, a significant negative effect with uncertainty is likely as the effects depend were mineral extraction occurs in the area.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is not adjacent to a water body, AQMA or a Source Protection Zone. However, it is adjacent to a sensitive receptor. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Kempsey and in close proximity to St Peter The Great, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding		This area of search is within flood zone 2. Overall, a negligible effect is likely.
Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area and is adjacent to another Public Right of Way. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the south in Kempsey. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The entirety of the area of search lies within 100m of the residential area of Kempsey. Therefore, it can be assumed that any mineral development within this area could impact the sensitive receptor by noise, dust and emission. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is likely to be adjacent to an area allocated for the provision of housing, therefore minerals development may compromise residential amenity of this development. However, the area of search is being worked for brick clay which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

CLAY13

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search is not located within 1.5km of am AONB. However, it contains a network of PROWs, an outdoor recreational facility and Powick Hams registered common land.
and quality and minimise negative visual impact.	?	The area is within settled farmlands on river terrace land cover parcel. A landscape characteristic that could be affected by mineral extraction is the extensive cropping/horticultural land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within close proximity to River Teme SSSI. It contains Carey's Brook
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Local Wildlife Site and is located within 1.5km of a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains two Grade II listed buildings (Thatchings and Milestone) and is adjacent to four Grade II listed buildings and Powick Conservation Area. As such, there is potential for minerals development to significantly compromise these historic environment assets. There is potential for inter-visibility and noise and dust disturbance between the area of search and a Grade I and multiple Grade II listed buildings contained within Powick Conservation Area to the north which could significantly compromise these historic environment assets. Overall, a significant negative
		effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is comprised of Grade 2 and 3 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search contains Carey's Brook which passes through the centre of the parcel and is adjacent to a number of sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area of search is adjacent to Powick and Stanbrook and in close proximity to Worcester, all of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available within and adjacent to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	-?	This area of search is within flood zone 3. Overall, a minor negative effect with uncertainty is likely, as the effect depends on where minerals are extracted from within the area.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the south in Stanbrook and Kempsey and a school to the north west in Powick. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains or is within 100m of the residential areas of Powick and Pole Elm, an outdoor recreation facility and multiple PROWS. All of which could be impacted by noise, dust and emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is located adjacent to one area allocated for the provision of housing and is within 250m of another, therefore minerals development could compromise residential amenity of these. However, the area of search is being worked for brick clay which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Appendix 9 Appraisal Matrices for Terrace and Glacial Sand and Gravel Area of Search Options

TGSG1: Larford

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is not located within an AONB. However, it is located adjacent to a number of sensitive receptors, such as residential areas, public rights of way and areas of outdoor leisure/recreation. It is approximately 0.9km away from registered common land, Hartlebury common.
negative visual impact.	?	This area is part of the land cover parcels, riverside meadow and Sandstone Estatelands. Riverside meadows have a number of key characteristics that could be affected by mineral extraction, such as, pastoral land use and tree cover character of individual trees rather than woodland. Sandstone Estatelands also have key characteristics that could be affected by mineral extraction, such as, arable land us and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to Harlebury Common and Hilditch Coppice SSSIs. The area is within 1.5km of two Local geological sites, Redstone Rock and Hartlebury Common. The area is in close proximity to LWS, the River Severn, which borders the area in the east. In addition, it is within 1.5km of LWS and LNR, Redstone Local Nature Reserve (The Bogs). As such, there is potential for minerals development to compromise the biodiversity of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search is not within or adjacent to a national historic environmental site or Conservation Area.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is likely to be sufficient urban development between the area of search and Grade II buildings to the north to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. However, there is potential for inter-visibility between the area of search and two Grade II listed buildings (Longmore Hill Farmhouse and Stable) 980m to the southwest of the area to significantly compromise this historic environment asset. Overall, a significant negative effect with uncertainty is likely on cultural heritage, architecture and archaeology, as effects depend on the

Sustainability Appraisal Objectives	SA Score	Potential effects
		exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	This sand and gravel area of search is in Grade 3 agricultural land. Therefore, a minor negative impact with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.
SA5: Natural Resources Protect and enhance water and air quality.	-	The majority of this area of search is within Source Protection zone 3. It is also in close proximity to the River Severn, just under 100m away. Overall, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This sand and gravel area of search is in close proximity to Areley Kings which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search contains part of a Public Right of Way. Minerals development could lead to severance of this which may compromise the ability of people to access key local services in nearby settlements. Overall, a significant negative effect with uncertainty is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	This area of search contains a PROW. As such, there is potential for minerals development to compromise this route, although it is uncertain due to the short extent of this route. Overall, a minor negative impact with uncertainty is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce crime, fear of crime and antisocial behaviour.		

TGSG2: Larford

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is not located within an AONB. However, it contains or is adjacent to a number of sensitive receptors, such as the residential area of Areley King, PROWs and areas of outdoor leisure/recreation. It is approximately 0.7km away from registered common land, Hartlebury common.
negative visual impact.	?	This area is part of the land cover parcels, riverside meadow and Sandstone Estatelands. Riverside meadows have a number of key characteristics that could be affected by mineral extraction, such as, pastoral land use and tree cover character of individual trees rather than woodland. Sandstone Estatelands also have key characteristics that could be affected by mineral extraction, such as, arable land us and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to Harlebury Common and Hilditch Coppice SSSIs. The area is within 1.5km of two Local geological sites, Redstone Rock and Hartlebury Common. The area is in close proximity to LWS, the River Severn, which borders the area in the east. In addition, it is within 1.5km of LWS and LNR, Redstone Local Nature Reserve (The Bogs). As such, there is potential for minerals development to compromise the biodiversity of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search is not within or adjacent to a national historic environmental site or Conservation Area.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development		There is likely to be sufficient tree coverage and urban development between the area of search and two Grade II buildings to the southwest and a Conservation area containing multiple Grade II and Grade II* buildings to the north to suggest that these historic environment assets are

Sustainability Appraisal Objectives	SA Score	Potential effects
which respects local character and distinctiveness.	0?	unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	The majority of this sand and gravel area of search is in Grade 3 agricultural land. Overall, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b and the remainder of the area of search consists of land identified as 'urban.'
SA5: Natural Resources Protect and enhance water and air quality.	-	The majority of this area of search is located within Source Protection Zone 3. It is also in close proximity to the River Severn. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This sand and gravel area of search is in close proximity to Areley Kings which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.

Sustainability Appraisal Objectives	SA Score	Potential effects
surface water flooding in all other areas.		
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where multiple Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the north in Stourport-on-Severn. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	This area of search contains a few PROWs. As such, there is potential for minerals development to compromise these routes, although this is uncertain depending on where minerals development takes place. Overall, a minor negative impact with uncertainty is likely on health and amenity.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst		This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.

Sustainability Appraisal Objectives	SA Score	Potential effects
ensuring all share the benefits, urban and rural.	+	
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.
Reduce crime, fear of crime and antisocial behaviour.		

TGSG3: Around Broomy Hill and Areley Kings

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is not located within an AONB. However, it contains and lies adjacent to a number of sensitive receptors, such as residential area of Stourport-on-Severn, PROWs and areas of outdoor leisure/recreation.
	?	This area is part of the land cover parcels, riverside meadow and Sandstone Estatelands. Riverside meadows have a number of key characteristics that could be affected by mineral extraction, such as, pastoral land use and tree cover character of individual trees rather than woodland. Sandstone Estatelands also has key characteristics that could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search lies within close proximity to a SSSI (Areley Wood). The area of search is also located adjacent to a Local Nature Reserve (Half Crown Wood) and two Local Wildlife Sites (River Severn and Redstone). As such, there is potential for minerals development to compromise the biodiversity of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.		This sand and gravel area of search contains a Grade II listed building and is also located adjacent to multiple Grade II and II* buildings. The site is also adjacent to the Areley Kings and Stourport-on-Severn conservation areas. As such, there is potential for minerals development to compromise this historic environment asset.
	?	There is likely to be sufficient urban development between the area of search and Grade II listed buildings, to the southwest, to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. However, there is potential for inter-visibility between the area of search and a Grade II listed building (Coneygreen Farmhouse) 180m to the north of the area to significantly compromise this historic environment asset. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	The western section of this area of search is made up of Grade 3 agricultural land. Overall, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b and the remainder of the area of search consists of land identified as 'urban'.
SA5: Natural Resources Protect and enhance water and air quality.		This area of search is not located within a Source Protection Zone. The River Severn runs adjacent to the parcel and existing residential areas are nearby. Overall, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This sand and gravel area of search is in close proximity to Stourport-On-Severn which could be a potential market. The presence of rivers suggests that potentially suitable water links are available adjacent to the area of search for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities,	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the north in Stourport-on-Severn. Overall, a significant negative effect with uncertainty is likely for this objective, as effects

Sustainability Appraisal Objectives	SA Score	Potential effects
regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.		depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is located within 100m of the residential area of Areley Kings, as well as two outdoor leisure and recreation facilities (St Bartholomew's Church religious grounds and a sports field). Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste		This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	will likely have no impact on waste.
SA11: Traffic and transport		This sand and gravel area of search may require road-based movement by HGVs, however there is
Reduce the need to travel and move towards more sustainable travel patterns.	+?	potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all		This sand and gravel area of search is not located within 250m of an area allocated for
Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing		This sand and gravel area of search is not within 250m of an area allocated for the provision of
Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant	+	housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
local environments.		
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG4: South of Birchen Coppice

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains and lies adjacent to a number of sensitive receptors including a PROW and the residential area of Lickhill and Burlish Park.
and quality and minimise negative visual impact.	?	This area is part of Sandstone Estatelands land cover parcel. Sandstone Estatelands' key characteristics that could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's		This area of search is located within 1.5km of Areley Wood SSSI. The area is located within 1.5km of five LWSs (Blackstone Rock and Mucky Marsh Meadow, Ribbesford Wood, Vicarage Farm Heath, River
biodiversity and geodiversity.		Severn and Burlish Camp) and one LNR (Burlish Top). The area is also within 1.5km of a local geological site, Blackstone Rock. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. However, there is potential for inter-visibility between the area of search and a Grade II listed building (Woodgreen Farmhouse)
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	200m to the south and a Grade II listed building 750m to the south (Lickhill Manor) to significantly compromise these historic environment assets. In addition, locally important Ribbesford House park and garden is within 1.5km of the area of search. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		This area of search is made up of predominantly Grade 2 agricultural land and lies entirely within the
Ensure efficient use of land through		Green Belt. Therefore, a minor negative effect is likely.
safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green	-	
belt value, maximising use of previously-		
developed land and reuse of vacant buildings, whilst safeguarding open space/green		

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies within Source Protection Zone 3 and is adjacent to a number of sensitive receptors including Stourport-on-Severn and a PROW. Therefore, a significant negative effect with uncertainty is likely, as the effects depend on the exact location of mineral extraction.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Stourport-on-Severn and in close proximity to Kidderminster, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access health, educational or other key local services in Stourport-on-Severn to the south east. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search is within 100m of a number of sensitive receptors, such as the adjacent residential area of Stourport-on-Severn and a PROW. Therefore, a significant negative uncertain effect is likely, as the effects depend on the exact location of mineral extraction.
SA10: Waste	-	This area of search is located directly adjacent to Blackstone Quarry landfill site. It is also located

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		within 250m of Lickhill Quarry materials reclamation facility. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect for this objective is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG5: South of Birchen Coppice

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual	-?	This area of search contains a PROW, which could be adversely affected by minerals development. This area is part of Sandstone Estatelands land cover parcel. Sandstone Estatelands' key characteristics that could be affected by mineral extraction, such as, arable land use and hedgerow
impact.		boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is within 1.5km of Devil's Spittleful SSSI. The area is located within 1.5km of five LWSs (Blackstone Rock and Mucky Marsh Meadow, Ribbesford Wood, Vicarage Farm Heath, River Severn and Burlish Camp) and one LNR (Burlish Top). The area is also within 1.5km of a local geological site, Blackstone Rock. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well designed and recourse.		This area of search does not contain or is adjacent to any national historic environment sites or conservation areas. The Area of Search is within 1.5km of the locally important Ribblesford House park and garden. There will likely be no effect on features within close proximity to the area since existing trees/woodland intercept the view.
and deliver well-designed and resource- efficient development which respects local character and distinctiveness.	-?	There is likely to be sufficient tree coverage between the area of search and four Grade II listed buildings 600m to the north east and a Grade I, Grade II* and four Grade II listed buildings to the north west to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search is made up of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is situated within Source Protection Zone 3 and is adjacent to the river Severn. In addition, a PROW is contained within the area of search. Therefore, a significant negative effect with uncertainty is likely, as effects depend on the specific location of mineral extraction.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bewdley, Kidderminster and Stourport-on-Severn, all of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access health, educational or other key local services to the south east in Stourport-on-Severn. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	The area of search contains a PROW. Therefore, a minor negative effect with uncertainty is likely as the effects depend on exactly where extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search is located directly adjacent to Blackstone Quarry landfill site. A minor negative effect is therefore likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG6: South of Birchen Coppice

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search contains or is adjacent to a number of sensitive receptors, including several outdoor sports/recreation facilities, routes 45 and 54 of the NCN, a PROW and the residential area of Stourport –on-Severn. All of which could be impacted or lost due to the result of mineral extraction.
	?	This area is part of Sandstone Estatelands land cover parcel. Sandstone Estatelands' key characteristics that could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies within close proximity to two SSSIs (River Stour Flood Plain and Wilden Marsh and Meadows). The area of search is located within 1.5km of three Local Wildlife Sites (Burlish Camp, Vicarage Farm Heath and Staffordshire and Worcestershire Canal) and a Local Nature Reserve, Burlish Top. Additionally, the area is within 1.5km of a local geological site, Leapgate Old Railway Line. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is adjacent to a Grade II listed building (47, Manor Road). As such there is potential for minerals development to significantly compromise this historic environment asset. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search is made up of Grades 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is situated within Source Protection Zone 3 and the eastern boundary is adjacent to the River Stour. In addition, there are a number of sensitive receptors included or adjacent to the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where development occurs in the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This sand and gravel area of search lies adjacent to Stourport-on-Severn and is in close proximity to Kidderminster and Bewdley, all of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way and cycle route pass through the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, education or other key local services to the south in Stourport-on-Severn. Therefore, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains or is adjacent to a number of sensitive receptors, including several outdoor sports/recreation facilities, routes 45 and 54 of the NCN, a PROW and the residential area of Stourport –on-Severn. Therefore, a significant negative effect is likely as it depends on where development occurs within the area.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search is located within 250m of ICL Environmental Services Ltd waste transfer station and Bonemill household recycling centre. A minor negative effect is therefore likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search contains a proposed allocation for housing development and is adjacent to an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of these developments. However, sand and gravel is used in housing construction. Therefore, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG7: Wilden

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search contains or is adjacent to a number of sensitive receptors, including Wilden Top outdoor sports/recreation facility, route 45 of the NCN, several PROWs, Leapgate Country Park, Hillary Road Common and the residential area of Stourport-on-Severn.
	?	This area is part of Sandstone Estatelands land cover parcel. Sandstone Estatelands' key characteristics that could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies within close proximity to two SSSIs (River Stour Flood Plain and Wilden Marsh and Meadows). The area of search is within 1.5km of two Local Wildlife Sites (Hartlebury Castle Marsh and Pools and River Stour). Additionally, the area is adjacent to local geological site, Leapgate Old Railway Line and within 1.5km of another local geological site, Hartlebury Common. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. However, there is potential for inter-visibility between the area of search and a Grade II listed building (Church of All Saints) 170m to the west which may significantly compromise this historic environment asset. In addition, Grade II listed Hartlebury park and garden and Hartlebury common is within 1.5km of the area of search. All of which could be impacted as a result of mineral extraction. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-	-	The area of search is situated within Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is situated within Source Protection Zone 3 and the western boundary is adjacent to the River Stour. In addition, there are a number of sensitive receptors included or adjacent to the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where development occurs in the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Stourport-on-Severn and in close proximity to Kidderminster, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school directly to the south west or other key local services further to the south west in Stourport-on-Severn. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the	?	This area of search contains or is within 100m of a number of sensitive receptors, such as, some outdoor recreation facilities, Wilden All Saints C of E Primary School and the residential area of

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		Stourport-on-Severn. Therefore, a significant negative effect is likely as it depends on where development occurs within the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search partially contains Summerway landfill and waste transfer station. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG8: Hurcott

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape		This area of search is not located within an AONB. It also contains a small section of a PROW, which could be sensitive to visual/landscape change.
character and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, Sandstone Estatelands. Sandstone Estatelands have key characteristics that could be affected by mineral extraction, such as, arable land us and hedgerow boundaries to fields. The eastern section of the area is incompatible with most characteristics, as such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity (52m) to a SSSI, Hurcott and Podmore Pools, to the north. It is also adjacent to a Local Nature Reserve (Hurcott Wood), and within close proximity to two LWSs, Hurcott & Podmore Pools (Pastures), to the northwest (95m) and Churchill & Blakedown Valleys (145m). Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic		This sand and gravel area of search contains a Grade II listed building (Park Hall). As such, there is potential for minerals development to compromise this historic environment asset. In addition, it is within 1.5km of a locally important park and garden (Sionhill House).
environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is likely to be sufficient tree coverage and urban development between the area of search and Grade II buildings, to the west, to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best	-	The area of search is made up of Grades 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.
and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open		

Sustainability Appraisal Objectives	SA Score	Potential effects
space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		This area of search is entirely within Source Protection zone 3 and is adjacent to a lake and a river, both to the north. This area is along the A456, which leads directly to an AQMA in Kidderminster. Mineral development at this area could increase traffic through that AQMA. Overall, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. The area is very close to Kidderminster which could be a potential market. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely on this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This sand and gravel area of search contains part of a Public Right of Way. Minerals development could lead to severance of this which may compromise the ability of people to access health, educational or other key local services to the south west in Kidderminster. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	This area of search contains a PROW. As such, there is potential for minerals development to compromise the experience of people using this route, although it is uncertain due to the short extent of this route. Overall, a minor negative impact with uncertainty is likely on health and amenity.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing or proposed waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will likely require road-based movement by HGVs. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
inward investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG9: Wildmoor Superficial Deposits

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search contains a couple of sensitive receptors including a number of PROWs and the village Hamlet of Wildmoor. Both of which could be impacted (or lost) as the result of potential mineral development.
	?	The area is within the land cover parcels, principal settled farmlands and enclosed commons. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, planned woodlands and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies within close proximity to an SSSI (Madeley Heath Pit). The area of search is also located within 1.5km of a Local Nature Reserve and Local Wildlife Site (Waseley Hills Country Park) and two other Local Wildlife Sites (Beacon Wood & Chadwich Wood and Broadmoor Wood & Chadwich Manor Ponds). The area is within 1.5km of a local geological site (Madeley Heath). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	Despite the presence of the M5 immediately to the east of the area, there is still potential for intervisibility with a Grade II* and two Grade II listed buildings (Chadwick Manor and surrounding buildings) 450m to the west which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is made up of Grades 2 and 3 agricultural land and lies entirely within the Green
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-	-	Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is situated within Source Protection Zone 3 and a minor river passes through the centre of the area of search. In addition, there are a number of sensitive receptors included or adjacent to the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where development occurs in the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Bromsgrove which could be a potential market. However, the presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Depending on where minerals are extracted from, the ability of people to access health, educational or other key local services in the settlement of Bromsgrove could be significantly compromised by a physical barrier. Overall, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the	?	This area of search contains or is within 100m of a number of PROWs and the residential area of Catshill. Therefore, a significant negative effect is likely as it depends on where development occurs within the area.

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search partially contains Chadwich Lane landfill site, Sandy Lane landfill site and Pinches 3 Quarry landfill and waste transfer station. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG10: Wildmoor Superficial Deposits

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search does not contain or is not adjacent to any national parks or garden, AONB or any sensitive receptors. It is however, within 1.5km, of Waseley Hills Country Park.
and quality and minimise negative visual impact.	-?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies within close proximity to two SSSIs (Madeley Heath Pit and Romsley Manor Farm). The area of search is also located within 1.5km to a Local Nature Reserve and Local Wildlife Site (Waseley Hills Country Park). The area is also within 1.5km of a local geological site (Madeley Heath). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	The presence of the M5 immediately to the west of the area and likely sufficient tree coverage between the area of search and a Grade II listed building (Hayes Farmhouse) 988m to the northwest which makes it possible to suggest that this historic environment asset will not be significantly compromised by inter-visibility with minerals development. Overall, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	-?	This area of search is situated within Source Protection Zone 3 and is not adjacent to a waterbody or any sensitive receptors. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This sand and gravel area of search is in close proximity to Frankley, within the Birmingham district, which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to compromise the ability of people to access health, educational or other key local services in nearby settlements. Whilst the area of search is adjacent to the M5, it is assumed that minerals development will not disrupt this. Therefore, no effects are likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	This area of search contains an overhead electricity line which crosses the north of the parcel. In addition, the M5 motorway transport corridor is adjacent to the area of search. Therefore, a minor negative effect with uncertainty is likely.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development.
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG11: Wildmoor Superficial Deposits

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape		This area of search contains two PROWs and is almost adjacent to Waseley Hill Country Park.
Safeguard and strengthen landscape character and quality and minimise negative visual impact.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search lies within close proximity to two SSSIs (Madeley Heath Pit and Romsley Manor
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Farm). The area of search is also located within 1.5km to a Local Nature Reserve and Local Wildlife Site (Waseley Hills Country Park). The area is also within 1.5km of a local geological site (Madeley Heath). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. In addition, there are no assets
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0	within close proximity to the area that might be compromised through inter-visibility with minerals development. Therefore, no effect is likely for this objective.
SA4: Material assets		The area of search lies entirely within the Green Belt, leading to a likely minor negative effect.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-?	This area of search is situated within Source Protection Zone 3 and contains a PROW. Therefore, a minor negative effect with uncertainty is likely, as the effects depend on the specific location of mineral extraction.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Frankley, in the Birmingham District, which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the west. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	This area of search contains a couple of PROWs and is adjacent to the M5 transport corridor. Therefore, a minor negative effect is likely as it depends on where development occurs within the area.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development.
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG12: Wildmoor Superficial Deposits

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search does not contain or is not adjacent to an AONB or any sensitive receptors. It is however, within 1.5km, of Waseley Hills Country Park.
and quality and minimise negative visual impact.	-?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies within close proximity to two SSSIs (Madeley Heath Pit and Romsley Manor Farm). The area of search is also located within 1.5km of a Local Nature Reserve and Local Wildlife Site (Waseley Hills Country Park) and another Local Wildlife Site (Broadmoor Wood & Chadwich Manor Ponds). The area is also within 1.5km of a local geological site (Madeley Heath). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is potential for inter-visibility between the area of search and a Grade II* and two Grade II listed buildings (Chadwick Manor and surrounding buildings) 500m to the south east which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search lies entirely within the Green Belt. As such, a minor negative effect is likely.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search is situated within Source Protection Zone 3 and is not adjacent to a waterbody or any sensitive receptors. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Frankley, in the Birmingham District, which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is located adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools to the north east. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	This area of search is adjacent to the M5 transport corridor and is within 100m of a PROW. Overall, a minor negative with uncertainty is likely as the effects depend on where mineral development occurs in the area of search.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG13: Wildmoor Superficial Deposits

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search contains or is adjacent to several sensitive receptors; these include a PROW, route 5 of the NCN and residential and industrial building on Redhill Lane. In addition, the area of search is within 1.5km of Waseley Hills and Lickey Hills country parks.
	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies within close proximity to two SSSIs (Madeley Heath Pit and Romsley Manor Farm). The area of search contains a Local Wildlife Site (Broadmoor Wood & Chadwich Manor Ponds) as well as within 1.5km of a Local Nature Reserve and Local Wildlife Site (Waseley Hills Country Park) and another Local Wildlife Site (Beacon Wood & Chadwich Wood). The area is also within 1.5km of a local geological site (Madeley Heath). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.		This area of search is located adjacent to two Grade II and one Grade II* listed buildings (Chadwick Manor and surrounding buildings). As such, there is potential for minerals development to compromise these historic environment assets.
	?	There is potential for inter-visibility between the area of search and a Grade II* and two Grade II listed buildings (Chadwick Manor and surrounding buildings) 60m to the south which may significantly compromise these historic environment assets. There is likely to be sufficient tree coverage and road barriers between the area of search and two Grade II buildings 686m to the south to suggest that these assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through	-	The area of search is made up of primarily Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated in Source Protection Zone 3 and a minor river passes through the southern corner of the area of search. In addition, the area of search includes several sensitive receptors. As such, a significant negative effect with uncertainty is likely, as the effects depend on where mineral development occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Rubery, within the Birmingham district, which could be a potential market. However, the presence of a river suggests that potentially suitable water links are available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access schools to the north east. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search is adjacent to the M5 transport corridor and contains residential properties and outdoor recreation facilities such as PROWS and NCN. Overall, a significant negative with uncertainty is likely as the effects depend on where mineral development occurs in the area of search.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new mineral extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
the local community.		
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG14: Wildmoor Superficial Deposits

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search contains a PROW and several residential properties off Halesowen Road. In addition, the area of search is within 1.5km of Waseley Hills and Lickey Hills country parks.
and quality and minimise negative visual impact.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction are thick woodland and private gardens. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies within close proximity to a SSSI (Feckenham Forest). The area of search is within 1.5km of two Local Wildlife Sites (Beacon Wood & Chadwich Wood and The Roughlands). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is potential for inter-visibility between the area of search and two Grade II listed buildings (Lydiate Ash House and gate) 80m to the north east which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is made up of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is situated within Source Protection Zone 3 and is adjacent to a residential area. As such, a significant negative effect with uncertainty is likely as it depends on where extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove, which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is located adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools or other key local services to the south west in Catshill. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search is adjacent to the M5 transport corridor and is adjacent to residential properties on Halesowen Road. Overall, a significant negative effect with uncertainty is likely, as the impact on sensitive receptors depends on where mineral extraction occurs in the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	-	This area of search is located within 250m of Pinches 3 Quarry landfill and waste transfer station. A minor negative effect is therefore likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG15: Wildmoor Superficial Deposits

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search contains a PROW and is adjacent to the residential area of Catshill, which could be sensitive to visual and landscape impact from a potential mineral development.
and quality and minimise negative visual impact.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are thick hedgerow and woodland and private gardens. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search lies within close proximity to two SSSIs (Feckenham Forest and Oakland Pasture).
Conserve and enhance Worcestershire's biodiversity and geodiversity.		The area of search lies within 1.5km to a Local Wildlife Site (Round Hill). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	There is likely to be sufficient tree coverage and urban development between the area of search and a Grade II listed building 330m to the south to suggest that this historic environment asset is unlikely to be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is made up of Grades 2 and 3 agricultural land and lies entirely within the Green
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and Battlefield Brook passes through the centre of the area of search. In addition, the residential area of Catshill, is adjacent to the area. As such, a significant negative effect with uncertainty is likely as it depends on where extraction occurs in the parcel
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is adjacent to Catshill and in close proximity to Bromsgrove, both of which could be potential markets. However, the presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is located adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools to the south in Catshill. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search is adjacent to the M5 transport corridor and contains a PROW and is within 100m of the residential area of Catshill. Therefore, a significant negative effect with uncertainty is likely as the effect on sensitive receptors depends on the exact location of mineral extraction.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new mineral extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. However, sand and gravel is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact,	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG16: Wildmoor Superficial Deposits

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search contains a couple of sensitive receptors including a number of PROWs, route 5 of the NCN and residential properties on Birmingham and Halesowen Road. All of which, could be impacted or potential lost as the result of a mineral development.
impact.	?	The area is within the land cover parcels, principal settled farmlands and enclosed commons. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, planned woodlands and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies within close proximity to two SSSIs (Feckenham Forest and Oakland Pasture). The area of search lies within 1.5km of two Local Wildlife Sites (Round Hill and The Roughlands). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is potential for inter-visibility between the area of search and two Grade II listed buildings 220m to the north which may significantly compromise these historic environment assets. Overall a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is primarily made up of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and contains several residential properties. Therefore, a significant negative effect with uncertainty is likely, as the impact on sensitive receptors depends on where mineral development occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove and Upper Marlbrook, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the south west in Catshill. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains a couple of sensitive receptors including a number of PROWs, route 5 of the NCN and residential properties on Birmingham and Halesowen Road. Overall, a significant negative effect with uncertainty is likely as the effects on sensitive receptors depend on where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new mineral extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG17: North of Upper Catshill

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	?	This sand and gravel area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as Marlbrook and Bromsgrove residential areas, PROWs and areas of outdoor leisure/recreation.
		The area is within the land cover parcel, principal settled farmlands. Principal settled farmlands have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This sand and gravel area of search is 0.2km away from a SSSI, Feckenham Forest. The area is
Conserve and enhance Worcestershire's biodiversity and geodiversity.		within 1.5km of five LWSs (Round Hill, The Roughlands, Beacon Wood & Chadwich Wood and Broadmoor Wood & Chadwich Manor Ponds). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology	0?	This sand and gravel area of search is not within or adjacent to a national historic environment site or Conservation Area.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.		There is likely to be sufficient tree coverage and the presence of the M5 between the area of search and two Grade II listed buildings 500m to the north east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a negligible effect with uncertainty is likely on cultural heritage, architecture and archaeology, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed	-	This sand and gravel area of search is entirely within the Green Belt and Grade 2 agricultural land. Overall, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		This sand and gravel area of search is entirely within Source Protection Zone 3 and is within close proximity to a minor river. In addition, the area of search is adjacent to sensitive receptors. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove and Upper Marlbrook, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where Public Rights of Way cross the area. Minerals development could lead to severance of this which may compromise the ability of people to access schools and health services to the south in Catshill. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity		This sand and gravel area of search is within 100m of Upper Marlbrook and Bromsgrove, residential area. Minerals development could have an impact on this sensitive receptor, through

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the health and well-being of the population and reduce inequalities in health.		noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is 253m away from a waste site, Pinches 3 Quarry. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals development in the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel which is used in housing construction, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG18: North of Upper Catshill

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as Marlbrook and Bromsgrove residential areas, PROWs and areas of outdoor leisure/recreation.
	?	It is within the land cover parcel, principal settled farmlands. Principal settled farmlands have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is 0.2km away from a SSSI, Feckenham Forest. The area is within 1.5km of five LWSs (Round Hill, The Roughlands, Beacon Wood & Chadwich Wood and Broadmoor Wood & Chadwich Manor Ponds). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology	0?	This sand and gravel area of search is not within or adjacent to a national historic environment site or Conservation Area.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	O.	There is likely to be sufficient tree coverage between the area of search and two Grade II listed buildings 657m to the north east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a negligible effect with uncertainty is likely on cultural heritage, architecture and archaeology, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of	-	This area of search is made up of Grade 2 agricultural land and lies entirely within the Green Belt. Overall, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	This sand and gravel area of search is entirely in Source Protection Zone 3. It is in close proximity to a minor river to the west and is adjacent to residential areas. Therefore, a significant negative impact with uncertainty is likely as the impacts depend where extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Upper Marlbrook and in close proximity to Bromsgrove, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	-?	This sand and gravel area of search is located adjacent to a Public Rights of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools and health services to the south in Catshill. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the		This sand and gravel area of search is adjacent to a Upper Marlbrook and Bromsgrove residential area, where they could be impacted by noise, dust or other emissions from a potential mineral

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		development. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
social responsibility in the local community.		
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.
Reduce crime, fear of crime and antisocial behaviour.		

TGSG19: Lickey End to Gorse Hill

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is not located within an AONB. However, it is located in close proximity (0.6km) to a Country Park, Lickey Hills. It is also located in close proximity to a residential area.
	-?	The area is entirely within the land cover parcel, enclosed commons. Enclosed commons have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, it will likely have a minor negative effect with uncertainty.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to one SSSI, Bittell Reservoirs to the northeast, (2.5km). The area is within 1.5km of to a LWS, Lickey Hills, and three local geological sites, Shepley Sandpit and Knoll, Kendal End Farm and Warren Lane Quarry. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This sand and gravel area of search is adjacent to a Conservation Area. There is a residential area and likely sufficient tree cover between the area of search and a Grade II listed building 723m to the east to suggest that this historic environment asset is unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a minor negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land	-	This sand and gravel area of search is entirely within Grade 3 agricultural land and the Green Belt. Overall, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources		This area of search is entirely within Source Protection Zone 3. Therefore, a minor negative impact is likely.
Protect and enhance water and air quality.	-	is likely.
SA6: Climate Change and energy		The area is in close proximity to Bromsgrove which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to
Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding		Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect
Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	is likely for this objective.
SA8: Access to Services		This sand and gravel area of search is not located within or adjacent to Public Rights of Way.
Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or	0	Overall, no impact is likely.
educational attainment.		
SA9: Health and amenity		This area of search is not located within 100m of any sensitive receptors. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the health and well-being of the population and reduce inequalities in health.	0	likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG20: Lickey End to Gorse Hill

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is not located within an AONB. However, it is located in close proximity (1.4km) to a Country Park, Lickey Hills. It is also located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
	?	The area is part of three land cover parcels, enclosed commons, settled farmlands with pastoral land use and principal settled farmlands. Enclosed commons have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields. Settled farmlands with pastoral land use also have key characteristics that could be affected by mineral extraction, such as, pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. Principal settled farmlands have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to Burcot Lane Cutting SSSI to the south (0.7km). It contains a LWS, Shepley Marsh, and within 1.5km to another, Spadesbourne Brook. In addition, the area is within 1.5km of a local geological site, Shepley Sandpit and Knoll. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and	-?	This sand and gravel area of search is adjacent to a Conservation Area. There is a residential area and sufficient tree cover between the area of search and a Grade II listed building 1km to the northeast to suggest that this historic environment asset is unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a minor negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
distinctiveness.		
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	This area of search is made up of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is entirely in Source protection zone 3 and a minor river runs through the southern section of the area. It is also within an AQMA consultation to the west and .5km away from an AQMA in Lickey End. Mineral development at this area could increase traffic through that AQMA. Overall, a significant negative effect with uncertainty is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This area of search is in close proximity to Lickey End and Bromsgrove, both of which could be potential markets. There is not a railway or suitable water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services		This sand and gravel area of search is not located within or adjacent to Public Rights of

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	0	Way. Overall, no impact is likely.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	This area of search is not located within 100m of any sensitive receptors. Overall, no impact on health and amenity is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for		This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
local needs, in clean, safe and pleasant local environments.	+	
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG21: Lickey End to Gorse Hill

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is not located within an AONB. However, it does contain or lie adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
	?	This area is within the land cover parcel, principal settled farmlands. Principal settled farmlands have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search contains a LWS, Spadesbourne Brook. The area is also within 1.5km of another LWS, Burcot Lane Meadow. The area is within 1.5km of a local geological site, Shepley Sandpit and Knoll. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search is not within or adjacent to a national historic environment site or Conservation Area.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is likely to be sufficient tree cover between the area of search and three Grade II listed buildings 365m to the southwest to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. However, the area of search is in close enough to proximity to suggest that the setting of these historic environment assets could be significantly compromised by noise and dust disturbance from minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The majority of the area is Grade 2 agricultural land with the western section in Grade 3. In addition, the area of search lies entirely within the Green Belt. Overall, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.		This sand and gravel area of search is entirely in Source Protection Zone 3 and a river runs through the area. It is 480m away from an AQMA in Lickey End. Mineral development at this area could increase traffic through that AQMA. Overall, a significant negative impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This area of search is adjacent to Lickey End and in close proximity to Bromsgrove, both of which could be potential markets. There is not a railway or suitable water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the south west in Bromsgrove or north west in Catshill. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This sand and gravel area of search is adjacent to Lickey End residential area, as well as a school, Lickey End Recreation ground and play space and the area contains a playing field. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of	0	The locations of strategic corridors and areas of search will not affect crime and the fear

Sustainability Appraisal Objectives	SA Score	Potential effects
crime)		of crime.
Reduce crime, fear of crime and antisocial behaviour.		

TGSG22: Lickey End to Gorse Hill

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
	?	The area is within the land cover parcel principal settled farmlands. Principal settled farmlands have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to Burcot Lane Cutting SSSI to the south (0.7km). The area is also adjacent to a LWS, Spadesbourne Brook and is within 1.5km of another LWS, Burcot Lane Meadow. In addition, the area is within 1.5km of a local geological site, Shepley Sandpit and Knoll. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search is in close proximity to three Grade II listed building sites. However, there is likely sufficient tree cover between the area of search and three Grade II listed buildings (Crows Mill House and surrounding buildings0 124m to the south to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. However, the area of search is in close enough proximity to suggest that there is potential for the setting of these historic environment assets to be significantly compromised by noise and dust disturbance from minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best		This area of search is comprised of Grade 3 agricultural land and lies entirely within the Green Belt. Overall, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	
SA5: Natural Resources Protect and enhance water and air quality.		This sand and gravel area of search is entirely in Source Protection Zone 3. A river runs adjacent to the area. It is also 400m away from an AQMA in Lickey End. Mineral development at this area could increase traffic through that AQMA. Overall, a significant negative impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This area of search is adjacent to Lickey End and in close proximity to Bromsgrove, both of which could be potential markets. There is not a railway or suitable water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access health educational or other key local services to the south west in Bromsgrove or north west in Catshill. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is adjacent to a residential area, which contains a school. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG23: Brockhill to Blackwell

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape		This sand and gravel area of search is not located within an AONB. It also contains or is adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
character and quality and minimise negative visual impact.	?	This area is part of the land cover parcels; principal settled farmlands and settled farmlands with pastoral land use. Principal settled farmlands have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Settled farmlands with pastoral land use also have key characteristics that could be affected by mineral extraction, such as, pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is 1.4km away from a SSSI (Hewell Park Lake) to the southeast. It is within 1.5km of two LWSs, Worcester and Birmingham Canal and Shortwood Rough Grounds. It is also within 1.5km of a local geological site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search contains two Grade II listed buildings. As such, there is potential for minerals development to compromise these historic environment assets.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is not a sufficient barrier between the area of search and a Grade II listed building 69m to the south to suggest that this historic environment asset is not likely to be significantly compromised by inter-visibility with minerals development. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the		This area of search is made up of Grade 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	
SA5: Natural Resources Protect and enhance water and air quality.	-	This sand and gravel area of search is entirely within Source Protection Zone 3 and is adjacent to the Worcester and Birmingham Canal. Overall, a minor negative impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove and Blackwell, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity,		This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access key local services in nearby settlements. Overall, a significant negative effect is likely with uncertainty is likely for this objective, as effects depend on the exact scale

Sustainability Appraisal Objectives	SA Score	Potential effects
disability, socio-economic status or educational attainment.	?	and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is within 100m of the residential area, Blackwell. There is also a golf course that lies within the northern section of the area. In addition, there is a school, pool facilities, playing fields and village envelopes all adjacent to the area of search. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.		This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and		This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
pleasant local environments.	+	
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG24: Brockhill to Blackwell

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape		This sand and gravel area of search is not located within an AONB. It also contains or is adjacent to a number of sensitive receptors, such as residential areas, public rights of way and areas of outdoor leisure/recreation.
character and quality and minimise negative visual impact.	?	This area is part of the land cover parcel; principal settled farmlands. Principal settled farmlands have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is 1.1km away from a SSSI (Hewell Park Lake) to the southeast. It is within 1.5km of a LWS, Worcester and Birmingham Canal to the south. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search contains one Grade II listed building site. As such, there is potential for minerals development to compromise this historic environment asset.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is not a sufficient barrier between the area of search and two Grade II listed buildings and a Grade II* building 100m to the east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed	-	This area of search is made up of Grade 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	-	This area of search is entirely in Source Protection Zone 3 and is adjacent to the Worcester and Birmingham Canal. Overall, a minor negative impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove and Redditch, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where one Public Rights of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access key local services in nearby settlements. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity		This area of search contains a Public Right of Way. As such, there is potential for minerals development to compromise this route, although this is uncertain due to the short extent of this

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the health and well-being of the population and reduce inequalities in health.	-?	route. Overall, a minor negative impact with uncertainty is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.
Reduce crime, fear of crime and antisocial behaviour.		

TGSG25: Brockhill to Blackwell

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape		This sand and gravel area of search is not located within an AONB. It also contains or is adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
character and quality and minimise negative visual impact.	?	This area is part of the land cover parcel; principal settled farmlands. Principal settled farmlands have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is 1.4km away from a SSSI (Hewell Park Lake) to the southeast. It is within 1.5km of a LWS, Worcester and Birmingham Canal to the south. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search is not within or adjacent to a national historic environment site or Conservation Area.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is a residential area between the area of search and a Grade II listed building 361m to the east which suggests that this historic environment asset is unlikely to be significantly compromised by inter-visibility with minerals development. However, there is potential for intervisibility between the area of search and a Grade II listed building 150m to the south west which may significantly compromise this historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural		This area of search is made up of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	
SA5: Natural Resources Protect and enhance water and air quality.	-	This area of search is entirely in Source Protection Zone 3 and is adjacent to the Worcester and Birmingham Canal. Overall, a minor negative impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove and Redditch, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	0	This sand and gravel area of search is not located within or adjacent to key local services. Overall, no impact is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	This area of search is not located within 100m of any sensitive receptors. Overall, it will likely have no impact.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all	0	The locations of strategic corridors and areas of search will not affect the ability of communities

Sustainability Appraisal Objectives	SA Score	Potential effects
Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.
Reduce crime, fear of crime and antisocial behaviour.		

TGSG26: Wychbold

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search is not located within 1.5km of an AONB. The area of search contains or is adjacent to several sensitive receptors including a PROW, a retail park including a pub and a Premier Inn hotel. All of which could be sensitive to a potential mineral development.
	?	The area of search lies within principal timbered farmland land cover type. Landscape characteristics that could be incompatible with mineral development include ancient woodland and a thick oak tree cover and field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is adjacent to a SSSI (Upton Warren Pools). The area is also adjacent to a LWS (River Salwarpe) and within 1.5km of another LWS (Grafton Manor Pool). This area is within 1.5km of a local geological site, Upton Warren Pit. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is adjacent to Upton Warren Conservation Area and contains part of another conservation area as well. There is also potential for inter-visibility and noise and dust disturbance between the area of search and multiple Grade II listed buildings and a Grade II* listed building 100m to the west which may significantly compromise these historic environment sites. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is made up of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies outside a Source Protection Zone but a minor river passes through the centre of the area of search and it is adjacent to several sensitive receptors. In addition, Worcester Road passes through the area of search, where an AQMA is located on the same road south of the area. Mineral development could lead to increased traffic in the AQMA. Therefore, a significant negative effect with some uncertainty is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Bromsgrove, Wychbold and Droitwich Spa, all of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available within and next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access a school to the east in Stoke Prior. Therefore, a minor negative effect with uncertainty is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains a PROW and is within 100m of the residential area of Upton Warren, where a pub and hotel are adjacent to the boundary of the area of search. Therefore, a significant negative effect with uncertainty is likely as the impact on sensitive receptors depends on where

Sustainability Appraisal Objectives	SA Score	Potential effects
		mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new mineral extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG27: Wychbold

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	The area of search is not located within 1.5km of an AONB. It does contain multiple PROWs which could be sensitive to a potential mineral development. The area of search lies within principal timbered farmland land cover type. Landscape characteristics that could be incompatible with mineral development include ancient woodland and a thick oak tree cover and field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is within close proximity (345m) to a SSSI (Upton Warren Pools). The area also contains a LWS (River Salwarpe) and is within 1.5km of two other LWSs (Upton Warren and Brine Pits Farm Marsh). This area is within 1.5km of a local geological site, Upton Warren Pit. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is adjacent to Upton Warren Conservation Area and a Grade II listed building (Staggs Meadow Cottage) and contains part of another conservation area as well. There is also potential for inter-visibility between the area of search and multiple Grade II listed buildings 140m to the north which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is made up of Grade 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies outside a Source Protection Zone but a minor river passes through the centre of the area of search and it is adjacent to several sensitive receptors. In addition, Worcester Road is adjacent to the area of search, where an AQMA is located on the same stretch of road. Mineral development could lead to increased traffic into the AQMA. Therefore, a significant negative effect with some uncertainty is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Bromsgrove, Wychbold and Droitwich Spa, all of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available within and next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the east in Stoke Prior and a school to the south in Wychbold. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search is adjacent to the M5 transport corridor and contains several PROWs and is within 100m of residential properties on Worcester road. Therefore, a significant negative effect with uncertainty is likely as the impact on sensitive receptors depends on where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new mineral extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG28: Wychbold

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains multiple PROWs and several residential properties on Brine Pits Lane. All of which could be sensitive to a potential mineral development.
and quality and minimise negative visual impact.	?	The area of search lies within a principal timbered farmland land cover type. Landscape characteristics that could be incompatible with mineral development include ancient woodland and a thick oak tree cover and field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is within close proximity (1.3km) to a SSSI (Upton Warren Pools). The area is adjacent to a LWS (River Salwarpe) and is within 1.5km of four other LWSs (Upton Warren, Brine Pits Farm Marsh, Highstank Pool and Ford Farm Marsh). This area is within 1.5km of a local geological site, Upton Warren Pit. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains a Grade II listed building (Ridgeway Court Farmhouse). There is also potential for inter-visibility between the area of search and a Grade II listed building 653m to the southeast and 230m to the east which could significantly compromise these historic environment assets. In addition, locally important Impney Park is located within 1.5km of the area of search. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is made up of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is located outside a Source Protection Zone and it not adjacent to a water body. However, there are sensitive residential receptors located within the area of search and the M5 is adjacent to the parcel. The M5 leads into the Worcester Road, Wychbold AQMA. Mineral development could lead to increased traffic in the AQMA. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where mineral development occurs in the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Bromsgrove, Wychbold and Droitwich Spa, all of which could be potential markets. However, the presence of rivers suggests that potentially suitable water links are available within and next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the east in Wychbold or other key local services to the south in Droitwich Spa. Therefore a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search is adjacent to the M5 transport corridor and contains several PROWs and residential properties on Brine Pits Lane. Therefore, a significant negative effect with uncertainty is likely as the impact on sensitive receptors depends on where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not within 250m of an area allocated for employment development or proposed infrastructure delivery and any new mineral extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG29: Harvington

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape		This area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation. In addition, it is adjacent to The Old Public Marl Pit, registered common land.
character and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, village farmlands with orchards. Village farmlands with orchards have a number of key characteristics that could be affected by mineral extraction, such as, extensive apple and plum orchards on south facing slopes. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to SSSI, Windmill Hill, to the southeast. The area of search is also within 1.5km from two LWSs (Harvington Carr and Atch Lench Wood). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search is in not within or adjacent to a national historic environment site or Conservation area.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is likely to be sufficient urban development between the area of search and multiple Grade II listed buildings 200m south west of the site to suggest that these historic environment assets are unlikely to be compromised by inter-visibility with minerals development. However, there is potential for inter-visibility between the area of search and a Grade II listed building 290m to the west which may significantly compromised this historic environment asset. Overall, a significant negative effect with uncertainty is likely for this objective, as effects

Sustainability Appraisal Objectives	SA Score	Potential effects
		depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	This sand and gravel area of search is made up of Grade 2 agricultural land. Therefore, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	0	This sand and gravel area of search is not within a Source Protection Zone. It is 435m from a minor river to the south. Overall, no impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Harvington, which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of this which may compromise the ability of people to access a school to the south in Harvington. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search contains allotments or community growing spaces, playing space and playing field and adjacent to the residential area of Harvington. In addition, the area is in close proximity to a cemetery and St. James' Church, where minerals development could have an impact on these receptors, through noise, dust and emissions. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search adjacent to an area allocated for the provision of housing, therefore minerals development could compromise residential amenity of these developments. However, the area of search is being worked for sand and gravel which is used in housing construction. Therefore, a significant negative effect with uncertainty and minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce crime, fear of crime and antisocial behaviour.		

TGSG30: Harvington

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape		This area of search is not located within an AONB. However, it does contain or lie adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
character and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, village farmlands with orchards. Village farmlands with orchards have a number of key characteristics that could be affected by mineral extraction, such as, extensive apple and plum orchards on south facing slopes. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to SSSI, Windmill Hill, to the southeast. It is also within 1.5km of two LWSs (River Avon and Littleton Meadows). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search surrounds Harvington Conservation Area that contains multiple Grade II listed buildings and one Grade I listed building. As such, there is potential for minerals development to compromise these historic environment assets. There is also potential for inter-visibility and noise and dust disturbance between the area of search and a Grade I and multiple Grade II listed building located within Harvington Conservation Area. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open	-	The majority of this area of search is made up of Grade 2 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is not within a Source Protection Zone. However, a minor river runs through the southern section of the area and there are a number of adjacent sensitive receptors. Overall, a significant negative effect with uncertainty is likely, as the effects depend where extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Harvington, which could be a potential market. There is not a railway or suitable water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the north east in Harvington. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the		This sand and gravel area of search is adjacent to the residential area of Harvington and is located in close proximity to a cemetery and St. James' Church. Minerals development could have an impact on these sensitive receptors, through noise, dust and emissions. Overall, a

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG31: South east of Harvington

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains a number of sensitive receptors including several PROWs, outdoor recreational facilities and a leisure park. All of which could be sensitive to landscape and visual impacts from a potential mineral development.
impact.	?	This area of search is part of principal village farmland and riverside meadows land cover parcels. The northern area is characterised by an open, rolling landscape with rural villages, surrounded by large arable fields. The south is characterised by flat flood plains. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to SSSI, Windmill Hill, to the southeast. In addition, this area is adjacent to two LWSs (River Avon and Harvington Carr) as well as within 1.5km of a LWS (Littleton Meadows) and a LWS and LNR (Cleeve Prior Bank). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is adjacent to a city conservation area and is also 200m from Harvington Conservation Area. As such, there is potential for minerals development to compromise these historic environment assets. There is potential for inter-visibility between the area of search and a Grade I and multiple Grade II listed buildings contained within Harvington Conservation Area 350m to the west which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,		The area of search is made up of primarily Grade 1 agricultural land. Therefore, a significant negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The River Avon passes through the south eastern corner of the area of search and sensitive receptors are contained within the area. Therefore, a significant negative effect with uncertainty is likely as the impacts on the water body and sensitive receptors depend on the exact location in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Harvington and Evesham, both of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the north west in Harvington or a school to the south west in Offenham. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains a number of sensitive receptors including several PROWs, outdoor recreational facilities, and a leisure park. All of which could be sensitive to a potential mineral development. Therefore, a significant negative effect with uncertainty is likely, as the effects depend on where mineral development occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new mineral extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG32: Offenham

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains or is adjacent to a number of sensitive receptors including, multiple PROWs, an outdoor recreational facility, commercial/agricultural buildings and the residential area of Offenham. All of which could be sensitive to visual and landscape changes.
impact.	?	The area of search lies within principal village farmland land cover type. The landscape is characterised by an open, rolling landscape with rural villages, surrounded by largescale commercial arable fields and greenhouses. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to a SSSI, Windmill Hill, to the east. In addition, the River Avon, an LWS, runs through the area and another LWS (Littleton, Broadway & Badsey Brooks and Tributaries) lies adjacent to the area. In addition, the area is within 1.5km of two LWSs (Windmill Hill & Harrow Hill Bank and Littleton Meadows) and a LWS and LNR (Cleeve Prior Bank). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to Offenham Conservation Area. As such, there is potential for minerals development to compromise this historic environment asset. There is potential for intervisibility and noise and dust disturbance between the area of search and multiple Grade II and Grade II* listed buildings located within Offenham Conservation Area which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is made up of primarily Grade 1 agricultural land. Therefore, a significant negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The River Avon and sensitive receptors are situated adjacent to the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is in close proximity to Evesham and Badsey, both of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. The presence of rivers suggests that potentially suitable water links are available within and next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to west in Offenham or a school to the east in South Littleton. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains or is within 100m of a number of sensitive receptors including, multiple PROWs, an outdoor recreational facility and the residential area of Offenham. Therefore, a significant negative effect with uncertainty is likely as the effects depend on the where mineral extraction occurs in the area of search.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however since there is potentially suitable water links that run through and adjacent to part of the area there is potential for sustainable means of transport, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new mineral extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to two areas allocated for the provision of housing and is within 250m of another, therefore minerals development could compromise residential amenity of these developments. However, the area of search is being worked for sand and gravel which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG33: Tythe Barn Farm

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains a PROW that crosses the centre of the parcel and several residential properties on the B4088 are located inside the land parcel. Both of which could be visually impacted by a mineral development.
impact.	?	This area is part of the land cover parcel, village farmlands with orchards. Village farmlands with orchards have a number of key characteristics that could be affected by mineral extraction, such as, extensive apple and plum orchards on south facing slopes. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to two SSSIs, Windmill Hill and Tunnel Hill Meadow. In addition, the area is within 1.5km of two LWSs (Rough Hill (north) Wood and River Avon). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is in not within or adjacent to a national historic environment site or Conservation area. There is likely to be sufficient urban development between the area of search and multiple Grade II listed buildings 330m to the south and 390m to the east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. However, the area of search is still in close enough proximity to these historic environment assets to suggest that there is potential for them to be significantly compromised by noise and dust disturbance. Overall, a significant effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-?	The area of search is entirely made up of Grade 3 agricultural land. Therefore, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	Harvington Brook passes through the north eastern corner of this area of search and there are sensitive residential receptors contained within the parcel. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs in the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Evesham and Harvington, both of which could be potential markets. There is not a railway or suitable water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the north east in Harvington. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The PROW and residential properties contained within the area of search could be sensitive to a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new mineral extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG34: Lenchwick

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	?	This sand and gravel area of search is not located within an AONB. It contains and is adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation facilities.
		This area is part of the land cover parcel, village farmlands with orchards. Village farmlands with orchards have a number of key characteristics that could be affected by mineral extraction, such as, extensive apple and plum orchards on south facing slopes. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This sand and gravel area of search is in close proximity to two SSSIs, Tunnel Hill Meadow and
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Windmill Hill. It is also within 1.5km of four LWSs (Wood Norton Complex, River Avon, Littleton Meadows and Rough hill (north) Wood). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology	?	This sand and gravel area of search surrounds Norton Conservation area which contains multiple Grade II listed buildings and is adjacent to multiple Grade II listed buildings also. As such, there is
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.		potential for minerals development to significantly compromise these historic environment assets. In addition, it is located in close proximity locally important Wood Norton Hall park and garden. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is comprised of Grade 2 and 3 agricultural land. Therefore, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	?	This sand and gravel area of search is not within a Source Protection Zone or adjacent to a waterbody. However, there are a number of sensitive receptors adjacent to the parcel. Therefore, a significant negative effect with uncertainty is likely as the effects depend where extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Evesham and Harvington, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services		This sand and gravel area of search is located where a number of Public Rights of Way cross the

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	area. Minerals development could lead to severance of these which may compromise the ability of people to access key local services in nearby settlements. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search surrounds the residential area of Norton and Lenchwick which contains St. Egwin's Church. The area is also within 100m of Phoenix Park Norton, play space and religious grounds. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all,		This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision

Sustainability Appraisal Objectives	SA Score	Potential effects
of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG35: Chadbury

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is not located within an AONB. It is located within and adjacent to a number of sensitive receptors, such as homes, PROWs and areas of outdoor leisure/recreation.
	?	This area is part of the land cover parcel, village farmlands with orchards. Village farmlands with orchards have a number of key characteristics that could be affected by mineral extraction, such as, extensive apple and plum orchards on south facing slopes. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to two SSSIs (Tunnel Hill Meadow and Highclere). It is also within 1.5km of three LWSs, the River Avon, Bloomers Meadows and Wood Norton Complex. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic		This sand and gravel area of search is adjacent to two Grade II listed building sites to the west. As such, there is potential for minerals development to compromise this historic environment asset.
environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is sufficient tree coverage between the area of search and two Grade II listed buildings and a Grade II* building 140m to the northwest of the area to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. However, the area of search is in close enough proximity to suggest that there is potential for noise and dust disturbance to significantly compromise the setting of these historic environment assets. Additionally, the area of search is in within 1.5km of locally important historic park and garden, Wood Norton Hall. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		This area of search is made up of Grade 2 and Grade 3 agricultural land. Therefore, a minor

Sustainability Appraisal Objectives	SA Score	Potential effects
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	0	This area of search is not within a Source Protection Zone or within close proximity of a waterbody. Overall, no impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Evesham and Fladbury, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable		This sand and gravel area of search is located where one Public Rights of Way cross the western section of the area. Minerals development could lead to severance of this which may compromise the ability of people to access health, educational or other key local services to

Sustainability Appraisal Objectives	SA Score	Potential effects
access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	the south east in Evesham. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity		This sand and gravel area of search is contains an electricity transmission line that passes through the eastern section of the area. Therefore, a minor negative effect is likely.
Improve the health and well-being of the population and reduce inequalities in health.	-	
SA10: Waste		This sand and gravel area of search is not within 250m of existing waste infrastructure.
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	Overall, it will likely have no impact on waste.
SA11: Traffic and transport		This sand and gravel area of search will require road-based movement by HGVs because there
Reduce the need to travel and move towards more sustainable travel patterns.	-	are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all		This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide
Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	new employment opportunities. Overall, a minor positive effect on growth with prosperity all.
SA13: Provision of housing		This sand and gravel area of search is not within 250m of an area allocated for the provision of
Provide decent affordable housing for		housing, but it is being worked for sand and gravel, therefore a minor positive effect on

Sustainability Appraisal Objectives	SA Score	Potential effects
all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	provision of housing is likely.
SA14: Participation by all	0	The locations of strategic corridors and areas of search will not affect the ability of
Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education)	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not
Raise the skills levels of qualifications of the workforce.		dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.
Reduce crime, fear of crime and antisocial behaviour.		

TGSG36: Charlton 2nd Terrace

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape		This area of search is not located within an AONB. It is located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
character and quality and minimise negative visual impact.	?	This area is part of the land cover parcels, riverside meadow and village farmlands with orchards and principal village farmlands. Riverside meadows have a number of key characteristics that could be affected by mineral extraction, such as, pastoral land use and tree cover character of individual trees rather than woodland. Village farmlands with orchards have a number of key characteristics that could be affected by mineral extraction, such as, extensive apple and plum orchards on south facing slopes. Principal village farmlands also have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is within 1.5km of two SSSIs Tunnel Hill Meadow and Highclere. It is adjacent to LWS (River Avon) and within 1.5km of three LWSs (Bloomers Meadows, Wood Norton Complex and Bishampton Bank). It is also within 1.5km of two local geological sites, Cropthorne Playing Field and Rectors Pit. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search lies adjacent to two Scheduled Monuments, Settlement site NNE of Fernhill Farm and Enclosures NE of Fernhill Farm, to the north, and is in close proximity to another Scheduled Monument, Roman settlement NW of Ryden Farm, to the east. In addition, it is in close proximity to eight Grade II listed buildings to the south east. As such, there is potential for minerals development to compromise these historic environment assets. Additionally, the area of search is in close proximity to a locally important historic park and garden, Wood Norton Hall.
districtiveness.		There is also potential for inter-visibility between the area of search and multiple Grade II listed buildings 90m to the southeast which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as

Sustainability Appraisal Objectives	SA Score	Potential effects
		effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	?	The majority of this sand and gravel area of search is made up of Grade 1 and Grade 3 agricultural land. Development in this area of search could lead to the loss of Grade 1 agricultural land. Therefore, a significant negative impact with uncertainty is likely as the effects depend where mineral extraction occurs.
SA5: Natural Resources Protect and enhance water and air quality.		This area of search is not within a Source Protection Zone. The River Avon runs through the northern section and another river runs through the southern section of the area. Overall, a significant negative impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Evesham and adjacent to Charlton, both of which could be potential markets. There is a railway line that runs through the area of search but it is uncertain whether the necessary infrastructure to transport minerals via this route could be supported. It is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which compromise the ability of people to access key local services in nearby settlements. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is within 100m of the residential area, Charlton, which contains a cemetery, St. John's Church, and public park or garden. Minerals development could have an impact on these sensitive receptors, through noise, dust and other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search is likely to require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce crime, fear of crime and antisocial behaviour.		

TGSG37: North Cropthorne

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as residential areas, public rights of way and areas of outdoor leisure/recreation.
	?	The area is within the land cover parcel, principal village farmlands. Principal village farmlands also have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search contains two Local Geological Sites, Rectors Pit and Cropthorne Playing Field. It is in close proximity to a SSSI site, Cropthorne New Inn Section. It is also within 1.5km of three LWSs (River Avon, Oxton Ditch and Meadows and Bloomers Meadows). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search is adjacent to a Conservation Area, which contains a large amount of Grade II listed building sites and one Grade I listed building site. As such, there is potential for minerals development to compromise this historic environment asset. There is also potential for inter-visibility between the area of search and a Grade II listed building 25m to the south which could significantly compromise this historic environment asset. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value,		This sand and gravel area of search is within Grades 2 and 3 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	
SA5: Natural Resources Protect and enhance water and air quality.	?	This sand and gravel area of search is not within a Source Protection Zone. It is, however, adjacent to the River Avon to the west and a number of sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Cropthorne and in close proximity to Evesham and Fladbury, all of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where a few Public Rights of Way cross the area. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This sand and gravel area of search is contains tow outdoor recreation grounds and is within 100m of the residential area of Cropthorne which contains a place of worship (St. Michael's Church) and a primary school. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to an area allocated for the provision of housing and is within 250m of another, therefore mineral development could compromise residential amenity of these developments. However, sand and gravel is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all	0	The locations of strategic corridors and areas of search will not affect the ability of communities

Sustainability Appraisal Objectives	SA Score	Potential effects
Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.
Reduce crime, fear of crime and antisocial behaviour.		

TGSG38: North Cropthorne

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
	?	The area is within the land cover parcel, principal village farmlands. Principal village farmlands also have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is within 1.5km of two Local Geological Sites, Rectors Pit and Cropthorne Playing Field. It is in close proximity to a SSSI site, Cropthorne New Inn Section, 237m away. It is also within 1.5km of three LWSs, (River Avon, Oxton Ditch and Meadows and Bloomers Meadows). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search is not within or adjacent to a national historic environment site or Conservation Area. However, there is potential for inter-visibility between the area of search and a Grade II listed building 87m to the north and with multiple Grade II buildings to the west which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value,		This sand and gravel area of search is entirely in Grade 3 agricultural land. Therefore, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.

Sustainability Appraisal Objectives	SA Score	Potential effects
maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	
SA5: Natural Resources Protect and enhance water and air quality.	0	This sand and gravel area of search is not within a Source Protection Zone. It is in close proximity (392m) to the River Avon to the west and 364m away from another river to the west. Overall, no impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Cropthorne and in close proximity to Evesham and Fladbury, all of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This sand and gravel area of search is adjacent to the residential area of Cropthorne which contains a place of worship (St. Michael's Church) and a primary school. Minerals development could have an impact on these sensitive receptors, through noise, dust and emissions. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to two areas allocated for the provision of housing, therefore mineral development could compromise residential amenity of these developments. However, the area of search is being worked for sand and gravel which is used in housing construction. Therefore, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all	0	The locations of strategic corridors and areas of search will not affect the ability of communities to

Sustainability Appraisal Objectives	SA Score	Potential effects
Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.
Reduce crime, fear of crime and antisocial behaviour.		

TGSG39: Fladbury

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as residential areas, PROWS and areas of outdoor leisure/recreation.
	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This sand and gravel area of search is in close proximity to three SSSIs, Highclere, Tunnel Hill
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Meadow, and Cropthorne New Inn Section. The area of search contains two LWSs, Lower Moor Pits and Lench Ditch and Oxton Ditch and Meadows. It is also within 1.5km of three LWSs, the River Avon which runs along the eastern and southern borders of the area, Piddle and Whitsun Brooks and Wood Norton Complex. In addition, the south east section of the area is within 1.5km of two local geological sites, Cropthorne Playing Field and Rectors Pit. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search lies adjacent to a Scheduled Monument, Settlement site N of Spring Hill. It also surrounds one Conservation area and is adjacent to another. Each of these
Preserve and enhance the historic environment and deliver well-designed		Conservation areas contain a range of Grade I, II and II* listed buildings. As such, there is potential for minerals development to compromise this historic environment asset.
and resource-efficient development which respects local character and distinctiveness.	?	There is also potential for inter-visibility between the area of search and four Grade II listed buildings 558m to the north which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects

Sustainability Appraisal Objectives	SA Score	Potential effects
		depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	?	This sand and gravel area of search is made up of primarily Grades 1 and 2 agricultural land. Development within the area of search could lead to the loss of Grade 1 agricultural land. Therefore, a significant negative impact is likely, although this is uncertain as it depends where mineral extraction occurs in the area of search.
SA5: Natural Resources Protect and enhance water and air quality.		This area of search is not within a Source Protection Zone. The River Avon runs adjacent to the area along its eastern and southern borders. Another river runs along its western border. The area of search is also adjacent to existing residential areas, which could be affected by changes in air quality. Overall, a significant negative impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Fladbury and Lower Moor and is in close proximity to Pershore, all of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. The River Avon runs adjacent to the area which suggests there may be potential for transporting minerals by water, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.

Sustainability Appraisal Objectives	SA Score	Potential effects
water flooding in all other areas.		
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area and is adjacent to a few more. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This sand and gravel area of search surrounds and is adjacent to two residential areas, Fladbury and Lower Moor as well as places of worship and religious grounds, allotments or community growing spaces, Evesham Golf Course, and playing field and play space. Minerals development could have an impact on these sensitive receptors, through noise, dust and emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This sand and gravel area of search is within a biological treatment plant. It is also in close proximity (231m) to Hill and Moor waste site. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however since the River Avon runs adjacent to the area there is potential for sustainable means of transport, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination Overall, a minor positive uncertain impact is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban		This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.

Sustainability Appraisal Objectives	SA Score	Potential effects
and rural.	+	
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This sand and gravel area of search is adjacent to two areas allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. However, the area of search is being worked for sand and gravel which is used in housing construction. Therefore, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual

Sustainability Appraisal Objectives	SA Score	Potential effects
		disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.
Reduce crime, fear of crime and antisocial behaviour.		

TGSG40: Pinvin

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This sand and gravel area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and religious grounds.
and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This sand and gravel area of search is in close proximity to two SSSIs, Tiddesley Wood and Naunton
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Court Meadows. The area of search is within 1.5km of four LWSs (Pinvin Rough and Piddle, Hamdean Farm Meadow, Peopleton Rough and Whitsun Brooks). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search contains a Grade II* listed building (Church of St Nicholas) and is adjacent to three Grade II listed buildings (Moathouse Pinvin Manor, Tudor House and Orchard Lea). As such,
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	there is potential for minerals development to significantly compromise these historic environment assets. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is made up of entirely Grade 3 agricultural land. Overall, a minor negative effect
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is adjacent to a minor river and sensitive receptors. As such, a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Pinvin and in close proximity to Pershore, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the south west in Pinvin. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This sand and gravel area of search surrounds and is adjacent to the residential area of Pinvin, PROWs and a place of worship and religious grounds. Minerals development could have an impact on these sensitive receptors, through noise, dust and emissions. Overall, a significant negative effect with uncertainty is likely, as the effects depend on the exact location of mineral extraction.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	-	This area of search is located within 250m of Hill and Moor waste plant. A minor negative effect is therefore likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	-?/+	This area of search is located within 250m of an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. However, the area of search is being worked for sand and gravel which is used in housing construction. Therefore, mixed minor negative with uncertainty and minor positive effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG41: Pinvin

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This sand and gravel area of search is not located within an AONB. However, it does contain or is adjacent to a number of sensitive receptors, such as the residential area of Pinvin, PROWS and an outdoor recreational site.
impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to two SSSIs, Tiddesley Wood and Naunton Court Meadows. The area of search is within 1.5km of five LWSs (Pinvin Rough, Hamdean Farm Meadow, Peopleton Rough, Piddle and Whitsun Brooks and Bow, Shell, Swan and Seeley Brooks). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search is does not contain or is adjacent to any national historic environment sites or Conservation Areas.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is sufficient urban development between the area of search and Grade II and Grade II* listed buildings 230m to the east of the area and Grade II listed buildings 60m to the north east of the area to suggest that these historic environment assets will not be significantly compromised by intervisibility with minerals development. However, the area of search is still in close enough proximity to these historic environment assets to suggest that there is potential for them to be significantly compromised by noise and dust disturbance. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-	-	This area of search is made up of entirely Grade 2 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is outside a Source Protection Zone but it is adjacent to a number of sensitive receptors, including a middle school, PROWs and residential properties. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Pinvin and in close proximity to Pershore, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools directly to the east in Pinvin. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the	?	The area of search contains or is within 100m of a number of sensitive receptors, including a middle school, the residential area of Pinvin and several PROWS. Minerals development could have an impact on these, through noise, dust or other emissions. Overall, a significant negative effect with

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		uncertainty is likely, as the effects depend on the exact location of mineral extraction.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to an area allocated for the provision of housing, therefore minerals development could compromise residential amenity of this development. However, the area of search is being worked for sand and gravel which is used in housing construction. Therefore, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend upon the exact scale and location of minerals development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG42: Pinvin

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search contains or is adjacent to a number of sensitive receptors, such as the residential area of Pinvin, PROWS, an outdoor recreational facility and community allotments.
and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to a SSSI, Tiddesley Wood. The area of search is within 1.5km of four LWSs (Pinvin Rough, Piddle and Whitsun Brooks, River Avon and Bow, Shell, Swan and Seeley Brooks). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is likely to be sufficient urban development between the area of search and a Grade II* and Grade II listed buildings around 250m to the north to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. However, the area of search is still in close enough proximity to these historic environment assets to suggest that there is potential for them to be significantly compromised by noise and dust disturbance. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	This area of search is made up of entirely Grade 2 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is outside a Source Protection Zone but it is adjacent to a number of sensitive receptors, including a middle school, PROWs and residential properties. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Pinvin and in close proximity to Pershore, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the north west in Pinvin. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This sand and gravel area of search contains or is within 100m of a number of sensitive receptors, such as the residential area of Pinvin, PROWS, an outdoor recreational facility and community allotments. Minerals development could have an impact on these, through noise, dust and emissions. Overall, a significant negative effect with uncertainty is likely, as the effects depend on the exact location of mineral extraction.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	-?/+	This site is within 250m of an area allocated for employment development or infrastructure delivery which may compromise residential amenity of this development However, any new minerals extraction in the area is likely to provide new employment opportunities. Therefore, a minor negative effect with uncertainty and minor positive effect is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This site is not located within 250m of an area allocated for the provision of housing and is being worked from sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG43: Wick

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is within 1.5km of the Cotswold AONB. In addition, the area contains or is adjacent to a number of sensitive receptors, including, the residential areas of Pershore and Wick, an outdoor recreation park, religious grounds, several PROWs and community allotments. All of which could be sensitive to landscape and negative visual impact from a potential mineral development.
impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to two SSSIs, Tiddesley Wood and Cropthorne New Inn Section. The area of search is adjacent to LWS (River Avon) as well as within 1.5km to four LWSs (Piddle and Whitsun Brooks, Lower Moor Pits, Lench Ditch and Oxton Ditch and Meadows). In addition, it is within 1.5km of two local geological sites, Cropthorne Playing Field and Rectors Pit. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains a Grade II listed building (The Poplars) and lies adjacent to four Scheduled Monuments. This area of search is adjacent to two Conservations area, multiple Grade II listed buildings and is also in close proximity to Pershore conservation area 100m to the west which contains multiple Grade II and Grade II* listed buildings and a Grade I listed building. As such, there is potential for minerals development to significantly compromise these historic environment assets. Additionally, this area of search contains locally important park and garden, Wick House and is within 1.5km of Lower Hill and Endon Hall Park also. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green	?	The area of search is comprised of a mix of Grade 2 and Grade 1 agricultural land. Therefore, a significant negative impact with uncertainty is likely as the effects depend on where mineral extraction occurs in the area of search.

Sustainability Appraisal Objectives	SA Score	Potential effects
belt value, maximising use of previously- developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The River Avon and a number of sensitive receptors are situated adjacent to the area of search. As such, a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is in close proximity to Pershore and Evesham, both of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the east in Cropthorne or multiple schools to the west in Pershore. Therefore a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the	?	The area contains or is adjacent to a number of sensitive receptors, including, the residential areas of Pershore and Wick, an outdoor recreation park, religious grounds and community allotments. Minerals development could have an impact on these, through noise, dust or other emissions.

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		Overall, a significant negative effect with uncertainty is likely, as the effects depend on the exact location of mineral extraction in the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of any areas allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely to provide new employment opportunities. Therefore, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of any areas allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG44: Pensham

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search is within 1.5km of the Cotswold AONB. In addition, the area contains or is adjacent to a number of sensitive receptors, including, the residential areas of Pensham and several PROWs. All of which could be sensitive to landscape and negative visual impact from a potential mineral development.
	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to SSSI, Tiddesley Wood. The area of search is adjacent to a LWS (River Avon). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment		This area of search contains three Grade II listed buildings (Potters Cottage, The Old House and The White House and The Mede). As such, there is potential for minerals development to significantly compromise these historic environment assets.
and deliver well-designed and resource- efficient development which respects local character and distinctiveness.	?	There is likely to be sufficient tree coverage between the area of search and a Grade II listed building around 900m to the northeast and three Grade II buildings around 800m to the southwest to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Additionally, locally important Lower Hill and Wick House park are within 1.5km of the area of search. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-	?	The area of search is comprised of a mix of Grade 2 and Grade 1 agricultural land. Therefore, a significant negative impact with uncertainty is likely as the effects depend on where mineral extraction occurs in the area of search.

Sustainability Appraisal Objectives	SA Score	Potential effects
developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is surrounded on three sides by a loop in the River Avon and a number of sensitive receptors are contained in the area of search. As such a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy		The area is in close proximity to Pershore, which could be a potential market. The presence of rivers
Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	suggests that potentially suitable water links are available next to the area, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding		Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is
Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	likely for this objective.
SA8: Access to Services		This area of search is located where a number of Public Rights of Way cross the area. Minerals
Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	development could lead to severance of these which may compromise the ability of people to access schools to the north in Pershore. Therefore, significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area contains the residential areas of Pensham and multiple PROWs. Minerals development could have an impact on these, through noise, dust or emissions. Overall, a significant negative effect with uncertainty is likely, as the effects depend on the exact location of mineral extraction.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of any areas allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely to provide new employment opportunities. Therefore, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of any areas allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG45: West of Beckford

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search is adjacent to the Cotswold AONB. The area contains or is adjacent to a number of sensitive receptors, including, the residential areas of Beckford, an outdoor recreational site, route 41 of the NCN and several PROWs. All of which could be sensitive to landscape and negative visual impact from a potential mineral development.
impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to SSSI, Beckford Gravel Pit. The area of search is within 1.5km of two LWSs (Carrant Brook and Cobbler's Quarry Woods). This area is within 1.5km of two local geological sites, Bedford Gravel Pit and Beckford Court Farm. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to a Grade II listed building (Milepost about 12 yards south of the Cross House) and Beckford Conservation Area. As such, there is potential for minerals development to significantly compromise these historic environment assets. There is likely to be sufficient tree cover and residential development between the area of search and a Grade II listed building 190m to the south to suggest that this historic environment asset is unlikely to be significantly compromised by inter-visibility with minerals development. Additionally, locally important Beckford Hall park and garden is within 1.5km of the area of search. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green	-	The area of search is made up entirely of Grade 2 agricultural land. As such, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
belt value, maximising use of previously- developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search contains a minor river and a number of sensitive receptors, including a residential area and an outdoor recreation ground. As such a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Beckford and in close proximity to Ashchurch, both of which could be potential markets. There is not a railway or suitable water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access key local services in nearby settlements. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the	?	The area contains or is adjacent to a number of sensitive receptors, including, the residential areas of Beckford, an outdoor recreational site, route 41 of the NCN and several PROWs. Minerals

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		development could have an impact on these, through noise, dust or other emissions. Overall, a significant negative effect with uncertainty is likely, as the effects depend on the exact location of mineral extraction.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of any areas allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area is likely to provide new employment opportunities. Therefore, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of any areas allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG46: Birlingham

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is located in close proximity to the Cotswolds AONB. In addition, the area contains or is adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation. It is within Registered common land and CRoW access all area, The Quay, Swans Neck. The area is also adjacent to Registered common land and CRoW access all area, Asham Meadow.
	?	This area is part of the land cover parcels, riverside meadow and principal village farmlands. Riverside meadows have a number of key characteristics that could be affected by mineral extraction, such as, pastoral land use and tree cover character of individual trees rather than woodland. Principal village farmlands also have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to a SAC and SSSI (Bredon Hill). It is also in close proximity to two other SSSIs (Tiddesley Wood and Eckington Railway Cutting). It is surrounded on three sides by a LWS (River Avon) and is adjacent to another LWS (Bow, Shell, Swan and Seeley Brooks). It is also within 1.5km of a LWS (Porter's Ashbed). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search contains one Grade II listed building site in the north west section of the area and is adjacent and surrounds two Conservation areas that contain several Grade II buildings. As such, there is potential for minerals development to compromise this historic environment asset. There is also potential for inter-visibility between the area of search and multiple Grade II listed buildings around 100m to the north which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	?	The majority of this sand and gravel area of search lies within Grades 1 and 2 agricultural land. Therefore, a significant negative effect with uncertainty is likely as the impact on Grade 1 land depend where extraction occurs in the area.
SA5: Natural Resources Protect and enhance water and air quality.		This area of search is not within a Source Protection Zone. It is surrounded on all sides by the River Avon and a minor river. Overall, a significant negative effect with uncertainty is likely as the effects depend where extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area surrounds Birlingham and is in close proximity to Defford, Eckington and Pershore, all of which could be potential markets. The presence of rivers suggests that suitable water links are potentially available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the western section of the area. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
economic status or educational attainment.		
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search surrounds St. James' Church and its religious grounds and a GP surgery is situated inside the area. In addition the area of search is within 100m of the residential area of Birlingham, a playing field and a number of PROWs. As such, there is potential for minerals development to impact these sensitive receptors. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG47: Eckington

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is in close proximity to the Cotswold AONB. In addition, it contains or is adjacent to a number of sensitive receptors, such as residential areas, public rights of way and areas of outdoor leisure/recreation.
	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is adjacent to an SSSI (Eckington Railway Cutting). It is also in close proximity to two other SSSIs, Rectory Farm Meadows and Bredon Hill (which is also a SAC and National Nature Reserve). It is within 1.5km of three LWS (River Avon and Bow, Shell, Swan and Seeley Brooks). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-		This sand and gravel area of search is adjacent to a Conservation area with multiple Grade II and Grade II* listed building sites. It is in close proximity to a Scheduled Monument, Ditched enclosures SE of Eckington Field Farm. As such, there is potential for minerals development to compromise this historic environment asset.
efficient development which respects local character and distinctiveness.	?	There is also potential for inter-visibility between the area of search and a Grade II* listed buildings 370m to the north which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through		The majority of this sand and gravel area of search is made up of Grades 2 and 3 agricultural land. Development within this area of search would lead to the loss of Grades 2 and 3

Sustainability Appraisal Objectives	SA Score	Potential effects
safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	agricultural land. Overall, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	0	This sand and gravel area of search is not within a Source Protection Zone. It is in close proximity (327m) to the River Avon, to the north. Overall, no impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Eckington which could be a potential market. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This sand and gravel area of search is located where one Public Rights of Way cross the area and is adjacent to a few more. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity		This sand and gravel area of search surrounds the residential area of Eckington, which contains Holy Trinity Church and religious grounds. It is also within a playing field and health and fitness

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the health and well-being of the population and reduce inequalities in health.		suite and adjacent to a cemetery. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search is likely to require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative impact is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. However, the area of search is being worked for sand and gravel which is used in housing construction. Therefore, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of minerals development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life,	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG48: Eckington

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This sand and gravel area of search is in close proximity to the Cotswolds AONB. In addition, it contains or is adjacent to a number of sensitive receptors, such as residential homes, PROWs and areas of outdoor leisure/recreation.
and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is adjacent to an SSSI (Eckington Railway Cutting). It is also in close proximity to two other SSSIs, Rectory Farm Meadows and Bredon Hill (which is also an SAC and National Nature Reserve). It is within 1.5km of three LWS (River Avon and Bow, Shell, Swan and Seeley Brooks). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search is adjacent to Eckington Conservation area with multiple Grade II and Grade II* listed building sites enclosed within it. It is in close proximity to a Scheduled Monument, Ditched enclosures SE of Eckington Field Farm. As such, there is potential for minerals development to compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The majority of this sand and gravel area of search is made up of Grades 2 and 3 agricultural land. Development with this area of search would lead to the loss of Grades 2 and 3 agricultural land. Overall, a minor negative impact is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	0	This sand and gravel area of search is not within a Source Protection Zone or adjacent to a waterbody. Overall, no impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Eckington which could be a potential market. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This sand and gravel area of search is not located where one or more Public Rights of Way cross the area. Overall, no impact is likely.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is adjacent to the residential area of Eckington, which contains Holy Trinity Church and religious grounds. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste		This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative impact is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to an area allocated for the provision of housing, therefore mineral development could compromise residential amenity if this development. However, the area of search is being worked for sand and gravel which is used in housing construction. Therefore, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG49: Eckington

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This sand and gravel area of search is adjacent to the Cotswolds AONB. It also contains and or is adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to three SSSIs, Eckington Railway Cutting, Rectory Farm Meadows and Bredon Hill (which is also an SAC and National Nature Reserve). It is within 1.5km of three LWS (River Avon and Bow, Shell, Swan and Seeley Brooks). It is also within 1.5km of a local geological site, Bredon Hill. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-		This sand and gravel area of search is adjacent to and surrounds a Conservation area with multiple Grade II and Grade II* listed building sites. It is in close proximity (382m) to a Scheduled Monument, Ditched enclosures SE of Eckington Field Farm. As such, there is potential for minerals development to compromise this historic environment asset.
efficient development which respects local character and distinctiveness.	?	There is also potential for inter-visibility between the area of search and a few Grade II listed buildings and a Grade I listed building around 693m to the west which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The majority of this sand and gravel area of search is made up of Grades 1, 2 and 3 agricultural land. Development within this area of search would lead to the loss of Grades 1. Therefore, a

Sustainability Appraisal Objectives	SA Score	Potential effects
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	?	significant negative effect with uncertainty is likely as the effects depend where extraction occurs.
SA5: Natural Resources Protect and enhance water and air quality.	0	This area of search is not within a Source Protection Zone or adjacent to a waterbody. Therefore, no effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Eckington which could be a potential market. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that h4eavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect with is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This sand and gravel area of search is located where Public Rights of Way are adjacent to the area. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This sand and gravel area of search surrounds a residential area, Eckington, which contains Holy Trinity Church and religious grounds. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative impact is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG50: Mill End Farm

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is adjacent to the Cotswolds AONB. However, it is located in close proximity to Upham Meadow area of registered common land. It is also located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
inipact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands also have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to three SSSIs Upham Meadow and Summer Leasow (204m), Rectory Farm Meadows (198m) and Bredon Hill, which is also a SAC, (1.4km). It is also within 1.5km of three LWSs (River Avon, Lillians Orchard, Kemerton Lake). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This sand and gravel area of search is not within or adjacent to a national historic environment site or Conservation Area. There is sufficient tree coverage and residential development to the south of the area of search to reduce the potential for inter-visibility with a Grade I, a Grade II* and multiple Grade II listed buildings. Overall, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-		This sand and gravel area of search is mostly Grade 2 with small sections in Grade 3 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	
SA5: Natural Resources Protect and enhance water and air quality.	-	This area of search is not within a Source Protection Zone but The River Avon is in close proximity to the west of the parcel. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bredon and Ashchurch, both of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This sand and gravel area of search is located within 100m of the residential area of Bredon as well as tennis courts, bowling green and play space. The area is also adjacent to a playing field and Bredon Cricket Club. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Therefore, a significant negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative impact is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG51: Bredon East

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search is adjacent to the Cotswolds AONB. However, it is located adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is 613m away from a SSSI (Upham Meadow and Summer Leasow) and 1km away from another SSSI (Rectory Farm Meadows), both to the northwest. It is also within 1.5km of four LWSs (River Avon, Lillans Orchard, Kemerton Lake and Carrant Brook). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This sand and gravel area of search is not within or adjacent to a national historic environment site but is in close proximity to Bredon Conservation Area. There is likely to be sufficient residential development between the area of search and multiple listed buildings to the west to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	This sand and gravel area of search lies within Grades 2 and 3 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	This sand and gravel area of search is not within a Source Protection Zone or adjacent to a waterbody. However, it surrounds the residential area of Bredon which contains schools, homes, hospitals, faith centres, and outdoor leisure and recreation facilities. As such, there is potential for minerals development to compromise the natural resources and sensitive receptors of the area, but it depends on where development occurs within the area of search. Overall, a significant negative impact with uncertainty is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Bredon and within close proximity to Ashchurch, both of which could be potential markets. This sand and gravel area of search is not located within close proximity to a water link. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This sand and gravel area of search lies adjacent to a Public Rights of Way. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This sand and gravel area of search surrounds the residential area of Bredon, which contains, St. Giles' Church, a school and GP surgery. It also contains a playing field, tennis court, play space and sports facility, which could be sensitive to noise, dust or other emissions. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all	0	The locations of strategic corridors and areas of search will not affect the ability of communities to

Sustainability Appraisal Objectives	SA Score	Potential effects
Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG52: Bredon east

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search is within 1.5km of the Cotswolds AONB. However, it is located adjacent to a number of sensitive receptors, such as residential areas, public rights of way and areas of outdoor leisure/recreation.
impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is 0.6km away from a SSSI (Upham Meadow and Summer Leasow) and 1.3km away another SSSI (Rectory Farm Meadows), both to the northwest. It is also within 1.5km of four LWSs (River Avon, Lillans Orchard, Kemerton Lake and Carrant Brook). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This sand and gravel area of search is adjacent to a Conservation area that contains multiple Grade II listed building sites and a few Grade I and II* listed building sites. As such, there is potential for minerals development to compromise this historic environment asset. Overall, a minor negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,		This sand and gravel area of search lies within Grades 2 and 3 agricultural land. Development within this area of search would lead to the loss of Grades 2 and 3 agricultural land. Overall, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.	-	
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is not within a Source Protection Zone or adjacent to a waterbody. However it surrounds the residential area of Bredon which contains sensitive receptors such as schools, homes, hospitals, faith centres, and outdoor leisure and recreation facilities. As such, there is potential for minerals development to compromise the natural resources and sensitive receptors of the area, but it depends on where development occurs within the area of search. Overall, a significant negative impact with uncertainty is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Bredon and in close proximity to Ashchurch, both of which could be potential markets. This sand and gravel area of search is not located within close proximity to a water link. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-		This sand and gravel area of search is in close proximity to Public Rights of Way. Minerals development may have a slight impact on the ability of people to access health, educational or other key local services by removing or diverting a direct route to these. Overall, a minor negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
economic status or educational attainment.	-?	
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search surrounds the residential area of Bredon, which contains, St. Giles' Church, a school and GP surgery. It also contains a playing field, tennis court, play space and sports facility, which could be sensitive to noise, dust or other emissions. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing or proposed waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. However, the area of search is being worked for sand and gravel which is used in housing construction. Therefore, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG53: Bredon to Beckford

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is in close proximity to an AONB (Cotswolds). However, it is located adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is 330m away from a SSSI (Upham Meadow and Summer Leasow). It contains a LWS, Carrant Brook and is adjacent to two other LWSs, Kemerton Lake and Long Meadow. In addition, it is within 1.5km of another LWS, Lillans Orchard. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-		This sand and gravel area of search lies adjacent to a Scheduled Monument, Settlement site NE of Kinsham, to the east. It also surrounds multiple Grade II listed building sites and contains a Grade II building site. As such, there is potential for minerals development to compromise this historic environment asset.
efficient development which respects local character and distinctiveness.	?	There is likely to be sufficient tree coverage between the area of search and multiple Grade II listed buildings and a Grade II* listed building around 465m to the southeast of the area to suggest that this historic environment asset is unlikely to be significantly compromised by intervisibility with minerals development. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green		The majority of this area of search lies within Grade 2 agricultural land. Small sections of the area are in Grade 3 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
belt value, maximising use of previously- developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is not within a Source Protection Zone. A rivers runs through the eastern section of the area. Therefore, a significant negative effect with uncertainty is likely, as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Kinsham and in close proximity to Bredon and Ashchurch, all of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. The presence of a river suggests that suitable water links may potentially be available for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search surrounds the residential area of Kinsham. There are also allotments or community growing spaces in the northern section of the area. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all	0	The locations of strategic corridors and areas of search will not affect the ability of communities to

Sustainability Appraisal Objectives	SA Score	Potential effects
Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG54: Elm Lodge Farm, Woodmancote

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search is not located within an AONB. However, it is in close proximity to registered common land, Asham Meadow. It is also located within and adjacent to a number of sensitive receptors, such as residential areas, public rights of way and areas of outdoor leisure/recreation.
and quality and minimise negative visual impact.	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to two SSSIs, Eckington Railway Cutting and Tiddesley Wood. It is adjacent to a LWS, the River Avon on its southern border. It is also within 1.5km of three LWSs (Porter's Ashbed, Bow, Shell, Swan and Seeley Brooks and Marsh Common). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search is not within or adjacent to a national historic environment site. However, there is potential for inter-visibility between the area of search and a Grade II listed building 185m to the west which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	?	The majority of this area of search is made up of Grade 1 agricultural land. Development within this area of search could lead to the loss of Grades 1 agricultural land. Overall, a significant negative impact is likely, although this is uncertain as the remainder of the area of search consists of Grade 2 and 3 agricultural land.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		This area of search is not within a Source Protection Zone. The River Avon is adjacent to the area on its eastern border. A minor river runs along the southwest border of the area. Overall, a significant negative impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Defford and Eckington, both of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This sand and gravel area of search is located where one Public Rights of Way crosses the area and is adjacent to a few more. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-	This area of search is in close proximity to the residential area of Defford, which contains St. James Church and religious grounds. It is also in close proximity, to the north, to a cemetery and outdoor playing field. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a minor negative effect is likely.
SA10: Waste		This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search adjacent to an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. However, the area of search is being worked for sand and gravel which is used in housing construction. Therefore, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG55: Bredon's Hardwick North

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape		This area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as homes, PROWs and areas of outdoor leisure/recreation.
Safeguard and strengthen landscape character and quality and minimise negative visual impact.	?	The area is within the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This sand and gravel area of search is in close proximity to two SSSIs (Upham Meadow and
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Summer Leasow and Severn Ham, Tewkesbury). The area of search is also within 1.5km of two LWSs (Bredon's Hardwick Gravel Pit and River Avon). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search contains two Grade II listed building sites and surrounds one Grade II listed building site. As such, there is potential for minerals development to compromise these historic environment assets.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is also potential for inter-visibility between the area of search and multiple Grade II listed buildings around 758m to the northwest which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		This area of search lies within Grades 2 and 3 agricultural land. Therefore, a minor negative effect
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	0	This sand and gravel area of search is not within a Source Protection Zone. In addition, it is not within or adjacent, but is in close proximity to a lake and the River Avon. Overall, a negligible impact is likely on natural resources.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bredon and Ashchurch Pershore, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This sand and gravel area of search is located where two Public Rights of Way cross the middle section of the area. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This sand and gravel area of search surrounds the residential area, Bredon's Hardwick. It also has a health and fitness centre within it that could also be sensitive to noise, dust or other emissions. The area contains PROWs that cross the entire area. As such, there is potential for minerals development to compromise this route. Overall, a significant negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.		This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG56: Hardwick House

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is not located within an AONB. However, it is located within and adjacent to a number of sensitive receptors, such as residential areas, public rights of way and areas of outdoor leisure/recreation. In addition, it is in close proximity to registered common land (Lower Cow Pasture, Shuthonger Common, and Midsummer Meadow).
	?	This area is part of the land cover parcel, principal village farmlands. Principal village farmlands have key characteristics that could be affected by mineral extraction, such as, nucleated pattern of expanded rural villages and arable/cropping land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to two SSSIs, Upham Meadow and Summer Leasow, to the north, and Severn Ham, to the south. The area of search is also within 1.5km of two LWSs (Bredon's Harwick Gravel Pit and River Avon). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This sand and gravel area of search contains a Grade II listed building site. As such, there is potential for minerals development to compromise this historic environment asset.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is likely to be sufficient urban development between the area of search and a Grade II listed building 177m to the south of the area to suggest that this historic environment asset is unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The majority of this sand and gravel area of search is made up of primarily Grade 2 agricultural land. Overall, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	0	This sand and gravel area of search is not within a Source Protection Zone. In addition, it is not within or adjacent, but is in close proximity to a lake and the River Avon. Overall, a negligible impact is likely on natural resources.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bredon and Ashchurch, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-	?	This sand and gravel area of search is located where two Public Rights of Way cross the area. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
economic status or educational attainment.		
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is located within 100m of Mitton and contains allotments or community growing spaces in the south. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG57: South of Ripple

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search is adjacent to Shuthanger Common and Midsummer Meadow registered common land. The area is not adjacent to nor does it contain any sensitive receptors.
and quality and minimise negative visual impact.	-?	The area is within the land cover parcel, settled farmlands on river terrace. Landscape characteristics that could be affected by mineral extraction are medium scale cropping and horticultural land uses. As such, there is a potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to a SSSI, Windmill Tump. The area of search is also adjacent to a LWS, Ripple Lake & The Napps. Additionally, the area is within 1.5km of two LWSs (Ripple Meadow and River Severn). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains a Grade II listed building (Puck Cottage) and is adjacent to a scheduled monument (Towbury Hill Camp). As such, there is potential for minerals development to significantly compromise this historic environment asset. There is likely to be sufficient tree coverage between the area of search and Grade II listed buildings at 250m and 700m to the east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is made up of entirely Grade 2 and 3 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies adjacent to two minor rivers. As such a significant negative effect with uncertainty is likely as the effects depend on the where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Tewkesbury, which could be a potential market. The presence of rivers suggests that potentially suitable water links are available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain or is adjacent to any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services in the settlement of Tewkesbury. Therefore, no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There are no sensitive receptors within 100m of the area of search. Therefore, no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG58: South of Ripple

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search is not located within an AONB. However, it contains or is adjacent to the residential area of Ripple, multiple PROWs and a place of worship and it religious grounds. All of which could be sensitive to a negative visual impact from a potential mineral development.
impact.	?	The area is within the land cover parcel, settled farmlands on river terrace. Landscape characteristics that could be affected by mineral extraction are the medium scale landscape for cropping and horticultural purposes. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to a SSSI, Upton Ham. The area of search is also adjacent to a LWS, Ripple Lake & The Napps. Additionally, the area is within 1.5km of LWS (River Severn). As such, there is potential for minerals development to compromise the biodiversity
biodiversity and geodiversity.		of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search contains a Grade II listed building and is located adjacent to Uckinghall Conservations Area and Ripple Conservation Area, both of which contain multiple Grade II listed
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	buildings. As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is made up of entirely Grade 2 and 3 agricultural land. Therefore, a minor
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies adjacent to two minor rivers and is adjacent to a few sensitive receptors, including the residential area of Ripple and PROWs. As such a significant negative effect with uncertainty is likely as the effects depend on the where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Tewkesbury and Upton upon Severn, both of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access key local services in nearby settlements. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains or is adjacent to the residential area of Ripple, multiple PROWs and a place of worship and it religious grounds. These sensitive receptors could be impacted by noise, dust and emissions from a mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs in the area.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG59: Naunton

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search is not located within an AONB. However, it is located in close proximity to a registered common land, Uckinghall Meadow. It is also located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
and quality and minimise negative visual impact.	?	The area is within the land cover parcel, settled farmlands on river terrace. Settled farmlands on river terrace have key characteristics that could be affected by mineral extraction, such as, cropping/horticultural land use and landscape of medium scale. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to a SSSI, Upton Ham. It is within 1.5km of three LWSs (River Severn, Ripple Lake & The Napps and Ripple Meadow). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search is adjacent to Uckinghall Conservation Area, which contains multiple Grade II listed building creating potential for inter-visibility with minerals development which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	This sand and gravel area of search is entirely in Grade 2 agricultural land. Overall, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	-	This area of search is not within a Source Protection Zone. The area is in close proximity (540m) to the River Severn to the west. A small segment of another river runs to the west of the area, 41maway. Overall, a minor negative impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Ripple and Upton upon Severn, both of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This sand and gravel area of search is not located within Public Rights of Way. Overall, no impact is likely.
SA9: Health and amenity Improve the health and well-being of the		This area of search is not within or adjacent to sensitive receptors. Overall, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.	0	
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG60: Naunton

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is not located within an AONB. However, it is located in close proximity to three registered common land, Uckinghall Meadow, Smithmoor Common and Brockeridge Common. It is also located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation. The national cycle route crosses the northern section of the area.
	?	The area is within the land cover parcel, settled farmlands on river terrace. Settled farmlands on river terrace have key characteristics that could be affected by mineral extraction, such as, cropping/horticultural land use and landscape of medium scale. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to a SSSI, Upton Ham, 103m away. It is adjacent to a LWS, the River Severn and within 1.5km of three other LWSs (Smithmoor Common and Meadows, Ley Farm Lake and Wood and Ripple Lake & The Napps). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search contains four Grade II listed building sites and is adjacent to seven additional sites. It also surrounds a Conservation Area, which contains Grade II listed building sites. As such, there is potential for minerals development to compromise this historic environment asset. There is also potential for inter-visibility between the area of search and a couple Grade II listed buildings 41m and 176m to the east which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through		This sand and gravel area of search is mostly Grades 1 and 2 with small sections in Grade 3. Development in certain areas of the parcel could lead to the loss of Grades 1 land. Overall, a

Sustainability Appraisal Objectives	SA Score	Potential effects
safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	?	significant negative impact with uncertainty is likely.
SA5: Natural Resources Protect and enhance water and air quality.	0	This area of search is not within a Source Protection Zone. The area is in close proximity (50m) to the River Severn to the west and another river to the east, 244m away. Overall, a negligible impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	_	The area is adjacent to Ryall and Holly Green and in close proximity to Ripple and Upton upon Severn, all of which could be potential markets. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the area. A National cycle route also crosses the area in the north. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity		This area of search is adjacent to residential area, Ryall and Holly Green as well as Leafield

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the health and well-being of the population and reduce inequalities in health.	?	Recreation Ground. The area also contains allotments or community growing spaces. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect with uncertainty is likely, as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This sand and gravel area of search is adjacent to Saxon's Lode, a waste site. It is also in close proximity to Grove House Farm Waste transfer station, 134m to the north. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
the local community.		
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG61: Newbridge Green

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative		This area of search is not located within an AONB. However, it is located adjacent to a registered common land, Land fronting the River Severn. In addition, it is in close proximity to Uckinghall Meadow, a registered common land. It is also located within and adjacent to a number of sensitive receptors, such as residential areas, PROWs and areas of outdoor leisure/recreation.
visual impact.	?	The area is within the land cover parcel, wet pasture meadows. Key landscape characteristics are flat low-lying topography and pastoral land use with patches of wet grassland. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to a SSSI, Upton Ham. It is adjacent to a LWS, the River Severn. The area is also within 1.5km of two LWSs (Brotheridge Green Disused Railway and Brotheridge Green Meadows & Boynes Coppice). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This sand and gravel area of search is adjacent to a Conservation Area, which contains a large amount of Grade II and II* listed building sites, to the northeast. As such, there is potential for minerals development to compromise these historic environment assets. There is also potential for inter-visibility between the area of search and multiple Grade II listed buildings around 70m to the west and southwest which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of	-?	This sand and gravel area of search is made up partially of Grade 3 agricultural land. Overall, a minor negative effect with uncertainty is likely as it is uncertain whether it is Grade 3a or 3b agricultural land.

Sustainability Appraisal Objectives	SA Score	Potential effects
previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	0	This sand and gravel area of search is not within a Source Protection Zone. The area is in close proximity (1.3km) to the River Severn to the east and another river to the north, 114m away. Overall, a negligible impact is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Upton upon Severn and in close proximity to Ryall and Tunnel Hill, all of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.		This sand and gravel area of search is located where a number of Public Rights of Way cross the area. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This sand and gravel area of search contains several outdoor recreation facilities. In addition, it is within 100m of the residential area, Upton-upon-Severn which contains three places of worship and their surrounding religious grounds, a cemetery and a primary school. Overall, a significant

Sustainability Appraisal Objectives	SA Score	Potential effects
		negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This sand and gravel area of search is not within 250m of an area allocated for the provision of housing, but it is being worked for sand and gravel, therefore a minor positive effect on provision of housing is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
the local community.		
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG62: North of Upton

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains or is adjacent to a number of sensitive receptors, such PROWs and areas of outdoor leisure/recreation.
and quality and minimise negative visual impact.	?	This area is part of riverside meadows land cover parcels. Key landscape characteristics that could be affected by mineral extraction include pastoral land use and individual tree cover character. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to three SSSIs, Earl's Croome Meadow, Upton Ham and Brotheridge Green Meadows. It is adjacent to LWS (River Severn). It is also within 1.5km of two LWSs (Brotheridge Green Disused Railway and Brotheridge Green Meadows & Boynes Coppice). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is adjacent to Upton-upon-Severn Conservation Area which contains multiple Grade II and Grade II* listed buildings. There is potential for inter-visibility between the area of search and Grade II listed building 100m to the south west and three Grade II listed buildings 110m to the west to significantly compromise these historic environment assets. Additionally, this sand and gravel area of search is located within 1.5km of locally important Hanley Castle park and garden. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	The area of search comprises primarily Grade 3 agricultural land. Therefore, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The River Severn passes the area of search along the western boundary and a number of PROWs are located within the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Upton upon Severn and in close proximity to Ryall and Tunnel Hill, all of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the south in Upton-upon-Severn. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search is contains a number of PROWs and is within 100m of an outdoor recreation area. Overall, a significant negative effect with uncertainty is likely as the effect on sensitive receptors depends where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect for this objective is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG63: Severn Stoke

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains or is adjacent to a number of sensitive receptors, including two PROWs and the residential area of Severn Stoke. All of which could be sensitive to a negative visual impact from a potential mineral development.
impact.	?	The area is within settled farmlands on river terrace land cover parcel. Landscape characteristics that could be affected by mineral extraction include the medium scale landscape for primarily cropping and horticultural uses. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This sand and gravel area of search is in close proximity to two SSSIs, Ashmoor Common and Earl's
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Croome Meadow. It is within 1.5km of four LWSs (River Severn, Brickpits Plantation & Sandford Pits, Croome River and Cliffey Wood). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search is located adjacent to multiple Grade II listed buildings and Croome Court nationally registered historic park. As such, there is potential for minerals development to
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is made up of entirely Grade 3 agricultural land. Overall, a minor negative effect
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is adjacent to Severn Stoke residential area and a PROW. Therefore, a significant negative effect is likely as the impact on sensitive receptors depends on where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Severn Stoke, which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access key local services in nearby local settlements. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains or is within 100m of a number of sensitive receptors, including two PROWs and the residential area of Severn Stoke. These receptors could be sensitive to dust, noise and emissions from a potential mineral development. Therefore, a significant negative effect with some uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect for this objective is likely.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG64: Severn Stoke

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains or is adjacent to a number of sensitive receptors, including two PROWs, a place of worship, a public park and the residential area of Severn Stoke. All of which could be sensitive to negative visual impact from a potential mineral development.
impact.	?	This area is part of riverside meadows land cover parcels. Key landscape characteristics that could be affected by mineral extraction include pastoral land use and tree cover character of individual trees rather than woodland. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to SSSIs, Ashmoor Common and Earl's Croome Meadow. It is within 1.5km of three LWSs (River Severn, Brickpits Plantation & Sandford Pits and Cliffey Wood & Cliffs). As such, there is potential for minerals development to compromise the biodiversity of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains four Grade II listed buildings (The Rose and Crown Public House, Churchyard Cross East of Transept of Church of St Denys and Severn Stoke War Memorial) and one Grade II* listed building (Church of St Denys). The area of search is also adjacent to multiple Grade II listed buildings and a Scheduled Monument, Churchyard cross in St. Denys's churchyard. As such, there is potential for minerals development to significantly compromise these historic environment assets. Additionally, the area of search is within 1.5km of locally important Hanley Castle park and garden. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	?	The area of search is made up of Grades 1, 2, 3 and 4 agricultural land. Where mineral extraction could lead to the loss of Grade 1 agricultural land, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is adjacent to a minor river and several sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Severn Stoke, which could be a potential market. There is not a railway or suitable water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access key local services in nearby settlements. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains or is within 100m of a number of sensitive receptors, including two PROWs, a place of worship, public park and the residential area of Severn Stoke. Mineral extraction could impact these receptors through noise, dust and emissions. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG65: South of Kempsey

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		A PROW is adjacent to the western boundary of the area of search which could be sensitive to negative visual impact from a potential mineral development site.
and quality and minimise negative visual impact.	-?	This area is part of riverside meadows and settled farmlands on river terrace land cover parcels. Key landscape characteristics that could be affected by mineral extraction include pastoral and horticulture land uses and individual trees. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to SSSI, Ashmoor Common. The area is also adjacent to two LWSs (Brickpits Plantation & Sandford Pits and Clifton Arles) as well as within 1.5km of three LWSs (River Severn, Dripshill Wood and Cliffey Wood & Cliffs). Additionally, the area is within 1.5km of a local geological site, Ashmoor Common. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This area of search does not contain or is adjacent to any national historic environment sites or conservation areas. There is likely to be sufficient tree coverage between the area of search and Grade II listed buildings to the north east and south west to suggest that these historic environment assets will not be significantly compromised by inter-visibility with minerals development. However, this area is within 1.5km of locally important parks and gardens; Hanley Castle and Rhydd court. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is comprised of entirely Grade 2 and 3 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies adjacent to two minor rivers and a PROW is adjacent to the area of search. Therefore, a significant negative effect is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Severn Stoke and Malvern Hills, both of which could be potential markets. There is not a railway or suitable water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access key local services in nearby settlements. Therefore, a minor negative with effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	A PROW is within 100m of the western boundary of the area of search, which is a sensitive receptor that could be impacted by dust, noise and emissions from a potential mineral development. Therefore, a significant negative effect is likely, as the effects depend where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG66: South of Kempsey

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains or is adjacent to a number of sensitive receptors, including route 45 of the NCN, multiple PROWs and the residential areas of Clifton and Madresfield. All of which could be sensitive to negative visual impact from a potential mineral development.
impact.	?	The area is within the land cover parcel, settled farmlands on river terrace. Landscape characteristics that could be affected by mineral extraction, such as, cropping/horticultural land use and landscape of medium scale. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search contains a SSSI; it is also in close proximity to SSSI, Napleton Meadow. The area also contains two LWSs (The Bogs and Normoor Common). It is also adjacent to four LWSs (Clifton Arles, Kempsey Lower Ham, River Severn and Birch Arles). Additionally, the area is within 1.5km of six LWSs (River Severn, Cliffey Wood & Cliffs, Dripshill Wood, Pirton Pool, Kempsey Upper Ham and Kempsey & Stonehall Commons). The area contains a local geological site, Ashmoor Common. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains fifteen Grade II listed buildings and a locally important park and garden and is adjacent to two Grade II listed buildings, Kempsey Conservation Area and two nationally registered historic parks and gardens. As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	?	The area of search is comprised of Grade 2 and 1 agricultural land, where extraction could lead to the loss of Grade 1 agricultural land. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the parcel.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search contains three minor rivers and the River Severn is adjacent to the western boundary of the area of search. In addition, sensitive receptors are situated within the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Kempsey and in close proximity to Malvern Hills, both of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available within and next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the north in Kempsey. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains or is within 100m of a number of sensitive receptors, including route 45 of the NCN, multiple PROWs and the residential areas of Clifton and Madresfield. All of which could be impacted by dust, noise and emissions from a potential mineral development. Therefore, a significant

Sustainability Appraisal Objectives	SA Score	Potential effects
		negative effect is likely, as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to two areas allocated for the provision of housing which compromise residential amenity of these developments. However, the area of search is being worked for and gravel which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG67: South of Kempsey

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains three Public Right of Ways. All of which could be sensitive to negative visual impact from a potential mineral development.
and quality and minimise negative visual impact.	-?	The area is within the land cover parcel, settled farmlands on river terrace. Landscape characteristics that could be affected by mineral extraction, such as, cropping/horticultural land use and landscape of medium scale. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to two SSSIs, Ashmoor Common and Napleton Meadow. The area is within 1.5km of five LWSs (Pirton Pool, Kempsey & Stonehall Commons, Normoor Common, Birch Arles and Croome River). Additionally, the area is within 1.5km of a local geological site, Ashmoor Common. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to a nationally registered historic park (Pirton Park) and is within 1.5km of locally important park, The Nash and Grade I listed park Croome Court. As such, there is potential for minerals development to compromise this historic environment asset. There is also potential for inter-visibility between the area of search and two Grade II listed buildings 269m to the northeast which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-?	The area of search is made up of entirely Grade 3 agricultural land. Overall, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	-?	The area of search is not adjacent to any water bodies or an AQMA. However, a number of PROWS are contained within the area. Therefore, a minor negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Kempsey, which could be a potential market. There is not a water link located within or adjacent to this sand and gravel area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	The area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access key local services in nearby settlements. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search is adjacent to the M5 transport corridor and several PROWs are contained within the area of search. The PROWs could be impacted by dust, noise and emission from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This sand and gravel area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Therefore, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG68: South of Kempsey

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	This area of search is adjacent to Powick Hams registered common land which could be sensitive to negative visual impact from a potential mineral development. This area does not contain or lie adjacent to any sensitive receptors.
		This area is part of riverside meadows land cover parcels. Key landscape characteristics that could be affected by mineral extraction include pastoral land use and individual tree cover character. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity to SSSI, Ashmoor Common. The area is within 1.5km of six LWSs (The Bogs, Clifton Arles, Frieze Wood, Madresfield Brook, Kempsey Lower Ham and River Severn). Additionally, the area is within 1.5km of local geological site, Ashmoor Common. As such, there is potential for minerals development to compromise the biodiversity of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. However, there is potential for inter-visibility between the area of search and two Grade II listed buildings (Cleeve Cottage and Clifton Ham) 520m to the south east which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-?	The area of search is entirely made up of Grade 3 agricultural land. Therefore, a minor negative effect is with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is adjacent to the River Severn and another minor river. Therefore, a significant negative effect with uncertainty is likely as the effects on the waterbodies depend on where mineral extraction occurs in the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is in close proximity to Kempsey which could be a potential market. The presence of rivers suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access key local services in nearby settlements. Overall, a minor negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	The area of search is not located within 100m of any sensitive receptors. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.		This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG69: Beauchamp Court

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This sand and gravel area of search is not located within an AONB. It is located within and adjacent to a number of sensitive receptors, such as residential areas, public rights of way and areas of outdoor leisure/recreation. A CRoW access all area runs through the northwest section of the area.
Tiegative visual impact.	?	This area is part of the land cover parcels, riverside meadow and settled farmlands on river terrace. Riverside meadows have a number of key characteristics that could be affected by mineral extraction, such as, pastoral land use and individual tree cover character opposed to woodland. Settled farmlands on river terrace also have key characteristics that could be affected by mineral extraction, such as, cropping/horticultural land use and landscape of medium scale. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This sand and gravel area of search is in close proximity (1.1km) to a SSSI, River Teme, to the north. The area is adjacent to a LWS, The River Severn, to the south east. In addition, it is within 1.5km of seven LWSs (Kempsey Lower Ham, Prior's Court Meadow, Old Hills & New Coppice, Kempsey Upper Ham, Carey's Brook, Frieze Wood and Madresfield Brook). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic		This sand and gravel area of search is contains four Grade II listed building sites in the centre of the area and is adjacent to another Grade II building site. As such, there is potential for minerals development to compromise these historic environment assets.
environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	There is also potential for inter-visibility between the area of search and a Grade II listed building 254m to the southwest which could significantly compromise these historic environment assets. The area of search is also 1.2km away from a nationally registered historic park and garden, Madresfield court. Minerals development could cause disturbance to the setting of this park. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	This sand and gravel area of search lies completely within Grade 3 agricultural land. Overall, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a or Grade3b.
SA5: Natural Resources Protect and enhance water and air quality.		This sand and gravel area of search is not within a Source Protection Zone. It is adjacent to a river to the north and the River Severn to the southeast. Overall, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Callow End and in close proximity to Kempsey, both of which could be potential markets. The presence of rivers suggests that suitable water links are available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities,	?	This sand and gravel area of search is located where a number of Public Rights of Way cross the majority of the area. Minerals development could lead to severance of these which may compromise the ability of people to access key local services in nearby settlements. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the

Sustainability Appraisal Objectives	SA Score	Potential effects
regardless of age, gender, ethnicity, disability, socio-economic status or educational attainment.		exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This sand and gravel area of search contains Callow End playing field, a CRoW access all area and the residential area of Callow End is adjacent to the area to the west. In addition, a number of PROWs cross the area. Minerals development could have an impact on these sensitive receptors, through noise, dust or other emissions. Overall, a significant negative effect with uncertainty is likely as the effects depend where extraction occurs in the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This sand and gravel area of search is not within 250m of existing waste infrastructure. Overall, it will likely have no impact on waste.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and the area will likely provide new employment opportunities. Overall, a minor positive effect on growth with prosperity for all.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for		This area of search is within 250m of an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. However, sand and gravel is used in housing construction. Therefore, a minor negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and

Sustainability Appraisal Objectives	SA Score	Potential effects
local needs, in clean, safe and pleasant local environments.	-?/+	location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

TGSG70: Powick

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	?	The area of search contains Powick Hams registered common land. In addition, the area of search contains or is adjacent to several PROWs, religious grounds and residential and commercial properties in the settlement of Powick. All of which could be sensitive to negative visual impact from a potential mineral development.
		The area is within settled farmlands on river terrace land cover parcel. A landscape characteristic that could be affected by mineral extraction is the extensive cropping/horticultural land use. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within close proximity to River Teme SSSI. It is also located adjacent to
Conserve and enhance Worcestershire's biodiversity and geodiversity.		a Local Wildlife Site (Carey's Brook) and is within 1.5km of a Local Nature Reserve (Laugherne Brook) and a number of other Local Wildlife Sites. Overall, a significant negative is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local	?	This area of search contains a Grade II listed building (Milestone) and is adjacent to Powick Conservation Area which contains a Grade I and multiple Grade II listed buildings. In addition, the area is within 1.5km of locally important park, Wick Episcopi. As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
character and distinctiveness.		
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is entirely made up of Grade 2 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is adjacent to Carey's Brook which passes the southern boundary of the parcel. In addition, there are a number of adjacent sensitive receptors. Therefore, a significant negative effect is likely as the effects depend where mineral extraction occurs in the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This sand and gravel area of search is adjacent to Powick and in close proximity to Worcester, both of which could be potential markets. However, the presence of rivers suggests that suitable water links are available next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the north in Worcester. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains or is within 100m of a number of sensitive receptors. These include outdoor recreation facilities, a place of worship and residential properties in the adjacent settlement of Powick. Therefore, a significant negative effect is likely as the effects depend exactly where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This sand and gravel area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This sand and gravel area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is adjacent to an area allocated for the provision of housing, therefore minerals development could compromise residential amenity of this development. However, the area of search is being worked for sand and gravel which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Appendix 10 Appraisal Matrices for Solid Sand and Gravel Area of Search Options

SSSG1: South of Stourport

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	?	There are multiple PROWs that are contained within this area of search, which could be sensitive to landscape and visual changes. In addition, a number of sports and recreation sites are located within the land parcel. These include Stourport RFC, Stourport Swifts FC and Stourport on Severn Cricket Club, as well as play space and a public park/garden. Additionally, Hartlebury Common, an area of registered common land is situated almost adjacent to the eastern boundary of the land parcel. All of the above could be visually impacted (or lost) by modifications to the landscape for a mineral development site.
		This area of search is made up of two land cover parcels, Sandstone Estatelands and Riverside Meadows. Key landscape characteristics of riverside meadows that could be affected by mineral extraction include pastoral land use and tree cover character of individual tree character opposed to woodland. In addition, Sandstone Estatelands could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search lies adjacent to a SSSI (Areley Wood) and in close proximity to two other SSSIs (Hartlebury Common and Hillditch Coppice and Shrawley Wood). The area contains two LWSs (Redstone Local Nature Reserve (The Bogs) and River Severn), a LNR (Redstone) and a local geological site (Redstone Rock). The area is also located within 1.5km of two more LWSs (Ribbesford Wood and Hurtle Hill Farm Orchard), a LNR (Half Crown Wood) and a local geological site, Hartlebury Common. As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains two Grade II listed buildings (Coneygreen Farmhouse and Old Beams Public House) and is adjacent to multiple Grade II and Grade II* listed buildings, Arley Kings Conservation Area and Stourport-on-Seven (No.1) Conservation Area. As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The eastern section of the area is in the urban area of Stourport and the remainder is made up of Grades 2 and 3 agricultural land. In addition, a small section in the north of the area lies within the Green Belt. Therefore, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.		The northern and southern boundaries of this area of search are situated within Source Protection Zone 3 and the parcel is adjacent to a number of sensitive receptors. In addition, the confluence of the River Severn and four other minor rivers including the River Stour is contained within the land parcel, which could be adversely affected by minerals development. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search surrounds Areley Kings and is adjacent to Stourport-on-Severn, both of which could be potential markets. The presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. Depending on where minerals extraction takes place, there is potential for the ability of people to access health, educational or other key local services in the settlement of Stourport-on-Severn to be significantly compromised by a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		There a number of receptors that are contained or located within 100m of the land parcel, including; residential areas of Stourport-on-Severn, Astley Cross and Arely King, a number of sport and recreation sites and multiple PROWS. As mineral development across the majority of the land parcel would be within 100m of sensitive receptors, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search lies within 250m of the OSS Group's physical treatment works. A minor negative effect is therefore likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search contains a proposed allocation for housing development, is adjacent to two areas allocated for the provision of housing and is within 250m of another three, therefore minerals development may compromise residential amenity of these. However, the area of search is being worked for sand and gravel which is used in housing construction. Overall, a significant negative

Sustainability Appraisal Objectives	SA Score	Potential effects
		effect with uncertainty and a minor positive effect are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG2: North of Stourport

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		There are several PROWs that are contained within this area of search. In addition, a number of outdoor sports and recreation sites are located within the land parcel. These are Areley Kings Sports Club and Stourport Sports Club. All of which could be visually impacted by modifications to the landscape for a mineral development site.
impoce.	?	This area is part of Sandstone Estatelands land cover parcel. Key landscape characteristics that could be affected by mineral extraction are arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to four SSSIs (River Stour Flood Plain, Wilden Marsh and Meadows, Devil's Spittleful and Areley Wood). The area contains two LWSs (Blackstone Rock and Mucky Marsh Meadow and Burlish Camp) and a LNR (Burlish Top). The area is adjacent to LWS (Staffordshire and Worcestershire Canal). The area is also located within 1.5km of five LWSs (Vicarage Farm Heath, River Severn, Ribbesford Wood, Wilden Meadows and Snuffmill Dingle & Park) and two local geological sites (Leapgate Old Railway Line and Blackstone Rock). As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to two Grade II listed buildings (Woodgreen Farmhouse and 47, Manor Road) and Staffordshire and Worcestershire Canal Conservation Area. The area of search also contains locally important garden (Ribbesford House and Gardens. The area of search also contains a locally important garden (Ribbesford House and Gardens). As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-	-	The area of search is comprised of a mix of Grades 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies within zone 3 of a Source Protection Zone and is adjacent to a number of sensitive receptors. In addition, the River Severn, River Stour and Staffordshire and Worcestershire Canal are all adjacent to the boundaries of the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral works occur in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search surrounds Stourport-on-Severn and is in close proximity to Areley Kings, Kidderminster and Bewdley, all of which could be potential markets. The presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way and a cycle route cross the area. Depending on where minerals extraction takes place, there is potential for the ability of people to access health, educational or other key local services in the settlement of Stourport-on-Severn to be significantly compromised by a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective.
SA9: Health and amenity	?	There a number of receptors that are contained or located within 100m of the land parcel, including;

Sustainability Appraisal Objectives	SA Score	Potential effects
Improve the health and well-being of the population and reduce inequalities in health.		the residential areas of Stourport-on-Severn, two outdoor sports/recreation sites and PROWs and the National Cycling Network. All of which could be sensitive to a potential mineral development. Therefore, a significant negative effect with uncertainty is likely, as the effects depend on where mineral development occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search contains Blackstone Quarry landfill site, Lickhill Quarry materials reclamation facility, and Bonemill household recycling centre. The area of search also lies within 250m of 7 Tek Ltd waste, electrical & electronic equipment works, and ICL Environmental Services Ltd waste transfer station. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	?/+	This area of search contains a proposed allocation for employment development. Minerals extraction may compromise this development. However, any new minerals extraction in the area will likely provide new employment opportunities. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as the exact scale and location of minerals development is unknown.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search contains a proposed allocation for housing development and is located adjacent to an area allocated for the provision of housing, therefore minerals development may compromise residential amenity of these developments. However, the area of search is being worked for sand and gravel which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of minerals development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life,	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG3: North of Stourport

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		There are several sensitive receptors located within or adjacent to the area of search. These include; PROWs, route 45 and 54 of the NCN and a number of outdoor sports/recreation sites.
and quality and minimise negative visual impact.	?	This area of search is made up of two land cover parcels, Sandstone Estatelands and Riverside Meadows. Key landscape characteristics of riverside meadows that could be affected by mineral extraction include pastoral land use and tree cover character of individual tree character opposed to woodland. In addition, Sandstone Estatelands could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is adjacent to three SSSI (River Stour Flood Plain, Hartlebury Common and Hillditch Coppice and Wilden Marsh Meadows) and is in close proximity to another SSSI sites (Devil's Spittleful). The area is adjacent to two LWSs (Staffordshire and Worcestershire Canal and Wilden Meadows) and a Registered common land (Hartlebury Common). The area is also located within 1.5km of four LWSs (Hartlebury Castle Marsh and Pools, Wilden Meadows, Vicarage Farm Heath and Burlish Camp). The area contains a local geological site (Leapgate Old Railway Line) and is within 1.5km of another local geological site (Hartlebury Common). As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains two Grade II listed buildings (Wilden Viaduct and Church of All Saints) and is adjacent to a Grade II listed building and Staffordshire and Worcestershire Canal Conservation Area. As such, there is potential for minerals development to significantly compromise these historic environment assets. Additionally, Grade II registered Hartlebury Castle and Hartlebury Common are both within 1.5km of the area of search. Minerals development could lead to disturbance of the setting of these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green	-	The area of search is comprised of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
belt value, maximising use of previously- developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The area of search lies within zone 3 of a Source Protection Zone and is adjacent to a number of sensitive receptors. In addition, the River Stour, a lake and Staffordshire and Worcestershire Canal are all situated within the land parcel. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is adjacent to Stourport-on-Severn and is in close proximity to Areley Kings, Kidderminster and Bewdley, all of which could be potential markets. The presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Depending on where minerals extraction takes place, there is potential for the ability of people to access health, educational or other key local services in the settlement of Stourport-on-Severn to be significantly compromised by a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	There a number of receptors that are contained or located within 100m of the land parcel, including; the residential areas of Stourport-on-Severn and Wilden, two outdoor sports sites, several PROWs and the National Cycling Network. All of which could be sensitive to a potential mineral development. In addition, overhead electricity lines run the length of the eastern boundary of the area of search. Therefore, a significant negative effect with uncertainty is likely, as the effects depend on where mineral development occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search contains Summerway landfill and waste transfer station and lies within 250m of Pencroft waste transfer station and Bonemill household recycling centre. A minor negative effect is therefore likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	-?/+	This area of search is located within 250m of an area allocated for the provision of housing, therefore minerals development may compromise residential amenity of these. However, the area of search is being worked for sand and gravel which is used in housing construction. Overall, a minor negative effect with uncertainty and a minor positive effect are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG6: North West of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search does not contain an AONB or any recreational facilities. The land parcel is located on the settlement edge of Kidderminster, adjacent to residential properties that could be sensitive to visual impacts as a result of mineral development.
impact.	?	This area is part of Sandstone Estatelands land cover parcel. Key characteristics that could be affected by mineral extraction are extensive arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is adjacent to a SSSI (Devil's Spittleful) and is in close proximity to another SSSI
Conserve and enhance Worcestershire's biodiversity and geodiversity.		sites (Wilden Marsh and Meadows). The area is also located within 1.5km of three LWSs (Habberley Valley, Wassell Wood and Burlish Camp) and a LNR (Burlish Top). The area contains a local geological site (Bewdley Road Cutting East) and is within 1.5km of another local geological site (Bewdley Road Cutting West). As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites or conservation areas. There is likely to be sufficient tree coverage between the area of search and two
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	Grade II listed buildings 580m to the south west and a Grade II listed building 570m to the west to suggest that these historic environment assets are unlikely to be significantly compromised by intervisibility with minerals development. Overall, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is comprised of a mix of urban and Grade 4 agricultural land. In addition, the
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green		entire area lies within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The entirety of the area of search is situated within zone 3 of a Source Protection Zone and is adjacent to a number of sensitive receptors. Therefore, a minor negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Kidderminster and in close proximity to Bewdley, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain or is adjacent to any Public Rights of Way. Whilst the area of search is adjacent to a large residential area, it is assumed that existing roads will be retained and the ability of people to access health, educational or other key local services in the settlement of Kidderminster will not be compromised. Therefore, no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The residential area of Kidderminster and Our Lady and St Pius X church are both located within 100m of the area of search. Due to the scale of this search area, sensitive receptors could be impacted by development anywhere within the parcel. So therefore, a significant negative effect is likely.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG7: North West of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		There are several PROWs and two outdoor recreation/sport sites situated inside the area of search. These include; Wolverley playing fields and Habberley golf course. Residential areas of Wolverley and Cookley are adjacent to the land parcel. All of the above could be visually impacted by modifications to the landscape for a mineral development site.
impact.	?	The area of search is comprised of Sandstone Estatelands land cover. The landscape of this area of search is characterised by agricultural use fields bounded by hedgerow with pockets of woodland dispersed across the landscape. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is adjacent to two SSSIs (Kinver Edge and Stourvale Marsh) and in close proximity to SSSI site, Puxton Marshes. The area contains six LWSs (Parkatt Wood and Honeybottom, Easthams Coppice, Honeytop Farm Pastures, Gloucester Coppice, River Stour and Habberley Valley) and two LNRs (Kingsford Forest Park and Habberley Valley). It is adjacent to three LWSs (Kingsford Heath, Cornhill Coppice and Caunsall Marsh). The area is also located within 1.5km of three LWSs (Arley Birch and Coldridge Wood, The Island Pool and Wassell Wood) and two local geological sites (Bewdley Road Cutting East and Bewdley Road Cutting West). As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains three Grade II listed buildings (Low Habberley Farmhouse, Hill House Cottage and Blakeshall Hall) and is adjacent to Wolverley Conservation Area and Staffordshire and Worcestershire Canal Conservation Area , multiple Grade II and II* listed buildings and a scheduled monument (Small multivallate hillfort on Drakelow Hill). The area of search also contains two locally important gardens (Blakeshall Hall and Kingsford Country Park). As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on where minerals development would come forward.
SA4: Material assets	-	The area of search comprises a mix of Grades 2, 3 and 4 agricultural land. In addition, it lies entirely

Sustainability Appraisal Objectives	SA Score	Potential effects
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		within the Green Belt. Therefore, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies within Source Protection Zone 3. The River Stour and Staffordshire and Worcestershire Canal both passes through the land parcel. In addition, there are a number of adjacent sensitive receptors to the area. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is adjacent to Kidderminster and is in close proximity to Bewdley and Kinver, all of which could be potential markets. The presence of a river and a canal suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of	?	This area of search is located where multiple Public Rights of Way cross the area. Depending on where minerals extraction takes place, there is potential for the ability of people to access health, educational or other key local services in the settlement of Kidderminster to be significantly compromised by a physical barrier. Overall, a significant negative effect with uncertainty is likely for

Sustainability Appraisal Objectives	SA Score	Potential effects
age, gender, ethnicity, disability, socio- economic status or educational attainment.		this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The receptors that are contained or located within 100m of the land parcel, include; the residential areas of Kidderminster, Wolverley and Cookley, sports and recreation sites and PROWs. As there is uncertainty regarding the exact scale and location of a mineral development, the impacts could differ across the area of search. However, a significant negative effect with some uncertainty is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?	This area of search contains a proposed allocation for housing development. Minerals development could significantly compromise this development. A significant negative effect with uncertainty is likely for this objective, as the exact scale and location of minerals development is unknown.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG8: North West of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape		The area of search is adjacent to residential properties in Kidderminster.
Safeguard and strengthen landscape character and quality and minimise negative visual impact.	?	This area is part of riverside meadows land cover parcels. Key landscape characteristics that could be affected by mineral extraction include pastoral land use and tree cover character of individual trees rather than woodland. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is adjacent to a SSSI (Puxton Marshes) and is in close proximity to SSSI
Conserve and enhance Worcestershire's biodiversity and geodiversity.		(Stourvale Marsh). The area is located within 1.5km of three LWSs (Wolverley Court Lock Carr, Puxton Marsh, River Stour, Staffordshire and Worcestershire Canal and Honeytop Farm Pastures). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. However, the area of search lies within 1.5km of locally important Sionhill House
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	park and garden. Minerals development could lead to disturbance of the setting of this historic environment asset. Therefore, a minor negative effect with uncertainty is likely for this objective, as the exact scale and location of minerals extraction in the area is unknown.
SA4: Material assets		The area of search is not located within the Green Belt and is made up of Grade 4 agricultural land.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	0	Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is situated within zone 3 of a Source Protection Zone and inside a flood storage area. In addition, the River Stour passes adjacent to the land parcel and it is adjacent to the residential area of Kidderminster. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Kidderminster which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain or is adjacent to any Public Rights of Way. Whilst the area of search is adjacent to a large residential area, it is assumed that existing roads will be retained and the ability of people to access health, educational or other key local services in the settlement of Kidderminster will not be compromised. Therefore, no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The residential area of Kidderminster is located within 100m of the area of search. Due to the small scale of this search area, sensitive receptors could be impacted by development anywhere within the parcel. So therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG9: North West of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search is not located within 1.5km of an AONB. There is a PROW adjacent to the south eastern boundary of the area of search that could be sensitive to visual changes to the landscape.
and quality and minimise negative visual impact.	-?	This area is part of Sandstone Estatelands land cover parcel. Key characteristics that could be affected by mineral extraction are arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is in close proximity to two SSSIs (Wyre Forest and Kinver Edge). The area
Conserve and enhance Worcestershire's biodiversity and geodiversity.		contains a LWS (Parkatt Wood and Honeybottom) and is adjacent to another LWS (Cornhill Coppice). The area is located within 1.5km of three LWSs (Easthams Coppice, Honeytop Farm Pastures and Arley Birch and Coldridge Wood). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. There is likely to be sufficient tree coverage between the area of search and a
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	Grade II listed building (Horsley Hills Farmhouse) 550m to the north east to suggest that this historic environment asset is unlikely to be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is made up of Grade 4 agricultural land and lies entirely within the Green Belt.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies within zone 3 of a Source Protection Zone and is adjacent to a number of sensitive receptors. Therefore, a significant negative effect is likely as the effects depend where mineral extraction works.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Kidderminster and Bewdley, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is located adjacent to a Public Right of Way. Diversion of this by minerals development could compromise the ability of people to access a school further to the east. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	There is a PROW located less than 100m from the southern boundary of the parcel. Therefore, a minor negative effect is likely as the effects depend where mineral extraction occurs in the parcel.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development.
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG10: North West of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains two PROWs. In addition, Brown Westhead Park and Cookley playing field, outdoor sports/recreation sites are contained within the area of search. There are also several residential properties on Lea Lane that are within the area of search.
impact.	?	This area of search is made up of two land cover parcels, Sandstone Estatelands and Riverside Meadows. Key landscape characteristics of riverside meadows that could be affected by mineral extraction include pastoral land use and tree cover character of individual tree character opposed to woodland. In addition, Sandstone Estatelands could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is adjacent to a SSSI (Stourvale Marsh) and is in close proximity to SSSIs (Puxton Marshes, Hurcott Pasture and Hurcott and Podmore Pools). The area contains a LWS (Wolverley Court Lock Carr) and is adjacent to another LWS (Staffordshire and Worcestershire Canal). The area is located within 1.5km of six LWSs (River Stour, Gloucester Coppice, Wolverley Marsh, Caunsall Marsh, Hurcott & Podmore Pools (Pastures) and The Island Pool). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains a Grade II listed building (Wolverley Court) and is adjacent to Staffordshire and Worcestershire Canal Conservation Area and two Grade II listed buildings. The area of search also contains a locally important garden (Sionhill House). As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green	-	The area of search is comprised of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
belt value, maximising use of previously- developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		This area of search is situated in Source Protection Zone 3 and is adjacent to a flood storage area and a number of sensitive receptors. In addition, the River Stour passes through the parcel on the western boundary. Therefore, a significant negative uncertain effect is likely as the effects depend where mineral extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is adjacent to Kidderminster and is in close proximity to Bewdley and Kinver, all of which could be potential markets. The presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the north and south of the site. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains of is within 100m of the residential area of Cookley, two outdoor sports/recreation sites and multiple PROWs. Therefore, a significant negative effect with some uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
the local community.		
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG11: North West of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search is not located within 1.5km of an AONB. There are two PROWs that pass through the area of search that could be sensitive to visual changes to the landscape.
and quality and minimise negative visual impact.	-?	This area of search is made up of two land cover parcels, Sandstone Estatelands and Riverside Meadows. Key landscape characteristics of riverside meadows that could be affected by mineral extraction include pastoral land use and tree cover character of individual tree character opposed to woodland. In addition, Sandstone Estatelands could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to a SSSI (Kinver Edge). The area contains a LWS (Caunsall Marsh) and is adjacent to another LWS (Staffordshire and Worcestershire Canal). The area is located within 1.5km of six LWSs (River Stour, Gloucester Coppice, and The Island Pool). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to Staffordshire and Worcestershire Conservation Area. As such, there is potential for minerals development to compromise this historic environment asset. There is potential for inter-visibility between the area of search and a Grade II listed building (Austcliff Farmhouse) 110m to the west which may significantly compromise this historic environment asset. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is made up of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is located within Source Protection Zone 3. In addition, the River Stour passes along the western boundary of the site. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is adjacent to Caunsall and is in close proximity to Kidderminster, both of which could be potential markets. The presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could cause severance of these which may compromise the ability of people to access schools to the south west of the site and other key local services further south in the settlement of Kidderminster. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	There are two PROWs situated within the area of search. Therefore, a minor negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG12: Five Ways

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape		The area of search is not located within 1.5km of an AONB. This area contains multiple PROWs and Churchill and Blakedown golf course, an outdoor sports/recreation site.
Safeguard and strengthen landscape character and quality and minimise negative visual impact.	?	This area is part of Sandstone Estatelands land cover parcel. Key landscape characteristics that could be affected by mineral extraction are arable land use and hedgerow boundaries to fields. There is an area of woodland in the south eastern corner of the land parcel. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to SSSIs (Hurcott and Podmore Pools and Hurcott Pasture). The area is located within 1.5km of three LWSs (Churchill & Blakedown Valleys, Hurcott & Podmore Pools (Pastures) and The Island Pool) and a LNR (Hurcott Wood). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. However, there is potential for inter-visibility between the area of search and two Grade II listed buildings (Parr's Farmhouse and barn) 200m from the western side of the area and multiple Grade II listed buildings 280m to the east which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is comprised of Grades 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search is situated within Source Protection Zone 3 and contains an outdoor sports site. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Kidderminster and Hagley, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could cause severance of these which may compromise the ability of people to access schools to the south east and north east of the site or other key local services further to the south west in Kidderminster. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The receptors, within the area of search that could be sensitive to a mineral development are Churchill and Blakedown golf course and the PROWs and an overhead electricity line crosses the centre of the area of search. Therefore, a significant negative effect is likely as the effects depend where mineral extraction occurs.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG16: North east of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search is not located within 1.5km of an AONB. There is a PROW that passes the eastern edge of the area of search and residential and commercial properties on Sugar Loaf Lane are adjacent to the parcel.
	?	The area of search lies within a Sandstone Estatelands land cover parcel. Key characteristics that could be affected by mineral extraction are arable land use and hedgerow boundaries to fields. There is an area of woodland in the south eastern corner of the land parcel. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is in close proximity to SSSIs (Hurcott and Podmore Pools and Hurcott Pasture).
Conserve and enhance Worcestershire's biodiversity and geodiversity.		The area is located within 1.5km of a LWS (Churchill & Blakedown Valleys). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. There is likely to be sufficient residential development between the area of search and two Grade II listed buildings (Parr's Farmhouse and barn) 800m to the south to suggest that this historic environment asset is unlikely to be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is comprised of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	This area of search lies within zone 3 of a Source Protection Zone and is adjacent to several sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Kidderminster and Hagley, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is located adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools to the east or other key local services further south in the settlement of Kidderminster. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The residential properties on Sugar Loaf Lane and the PROW within the area of search could be sensitive to noise, dust and emissions from a potential mineral development. Due to the scale of this area of search, development anywhere within the parcel could have an impact on sensitive receptors. Therefore, a significant negative effect is likely.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG17: North east of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		There are multiple PROWs that pass through the area of search and a number of outdoor sports/recreation facilities. Furthermore, the area of search is adjacent to residential properties in Kidderminster and Blakedown. All of the above could be sensitive to visual changes to the landscape.
	?	The area of search lies within a Sandstone Estatelands land cover parcel. Key characteristics that could be affected by mineral extraction are arable land use and hedgerow boundaries to fields. There is an area of woodland in the south eastern corner of the land parcel. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search contains two SSSIs (Hurcott and Podmore Pools and Hurcott Pasture) and is in close proximity to SSSIs (Stourvale Marsh, Puxton Marshes and Wilden Marsh and Meadows). The area contains seven LWSs (The Island Pool, Caunsall Marsh, Churchill & Blakedown Valleys, Hoo & Barnett Brook, Mearse Farm Heath and Captain's and Stanklyn Pools and Spennells Valley) and a LNR (Hurcott Wood). The area is located within 1.5km of LWSs (River Stour, Staffordshire and Worcestershire Canal and Hartlebury Castle Marsh and Pools) and LNR (Spennells Valley). It is also within 1.5km of a local geological site (Worcester Road Cutting). As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains nine Grade II listed buildings and is adjacent to Staffordshire and Worcestershire Canal Conservation Area, Churchill Conservation Area and multiple Grade II listed buildings. This area of search also contains a locally important park (Sionhill House). Additionally, Monks, Sion House and Broom House and Grade I listed Hagley Hall are located within 1.5km of the area of search. As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through	-	The area of search is comprised of Grades 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is situated entirely within Source Protection Zone 3and is adjacent to a number of sensitive receptors. In addition, the area contains six lakes and seven rivers, including the River Stour, that pass through the land parcel. Therefore a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Kidderminster and Hagley, both of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. The presence of rivers and a canal suggests that potentially suitable water links are available within and next to the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socio-	?	This area of search contains multiple Public Rights of Way. Depending one where minerals extraction takes place, there is potential for the ability of people to access health, educational or other key local services in the settlement of Kidderminster to be significantly compromised by a physical barrier. Severance of Public Rights of Way by minerals development may also compromise the ability of people to access schools to the north east and north west of the site. Overall, a significant negative

Sustainability Appraisal Objectives	SA Score	Potential effects
economic status or educational attainment.		effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains or is adjacent to a number of sensitive receptors, such as outdoor sports sites, PROWs and adjacent residential areas. In addition, two overhead electricity lines cross the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects on health and amenity depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	?/+	This area of search contains proposed allocations for mixed use development and for employment. Depending on where mineral extraction takes place, this development could be significantly compromised. However, any new minerals extraction in the area will likely provide new employment opportunities. Overall, an uncertain significant negative and a minor positive effect are likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search contains a proposed allocation for housing development, is adjacent to two areas allocated for the provision of housing and also contains a proposed allocation for mixed use development. Therefore, minerals development could compromise these developments. However, the area of search is being worked for sand and gravel which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all	0	The locations of strategic corridors and areas of search will not affect the ability of communities to

Sustainability Appraisal Objectives	SA Score	Potential effects
Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG18: Hagley Hall

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		There are multiple PROWs that cross this area of search and a number of residential properties adjacent to the parcel. In addition, it is adjacent to Clent Hills country park which could be sensitive to visual changes of the landscape.
	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to a SSSI (Penorchard & Spring Farm Pastures). The area is located within 1.5km of two LWSs (Clent Hills and Hagley Wood) and a local geological site (Hagley Hall Quarry). As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to a Grade II listed building (Clent House Farmhouse) and Clent Conservation Area. As such, there is potential for minerals development to significantly compromise these historic environment assets. There is likely to be sufficient tree coverage between the area of search and a Grade I, two Grade II* and multiple Grade II listed buildings 400m to the north to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development but could be compromised by noise and dust disturbance, particularly in the case of Grade I Hagley Hall. There is potential for inter-visibility between the area of search and two Grade II listed buildings 100m to the south which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and	-	The area of search is comprised of Grades 2, 3 and 4 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The area of search lies within zone 3 of a Source Protection Zone and is adjacent to a number of sensitive receptors. In addition, a minor river passes the northern boundary of the area of search. The parcel is situated off the A491 which leads into the Hagley AQMA. A mineral development in this area of search could increase traffic in the AQMA. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is in close proximity to Kidderminster and Hagley, both of which could be potential markets. The presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the north west in Hagley and a school to the south in Holy Cross. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains or is adjacent to a number of sensitive receptors including PROWs and adjacent residential properties. Both of which could be impacted by noise, dust and emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
the local community.		
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG19: Clent to Lydiate Ash

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	This area of search contains three PROWs and is adjacent to Hollies Hill and Sling common. In addition, Clent Hills country park is situated within 1.5km of the area of search. This area of search is comprised of two landscape types, Principal Settled Farmlands and Enclosed Commons. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Enclosed commons have a number of key characteristics are hedgerow boundaries to fields and planned woodland areas. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Therefore, a minor negative effect is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to three SSSIs (Sling Gravel Pits, Romsley Hill and Romsley Manor Farm). The area contains a LWS (Sling Pool and Marsh). The area is located within 1.5km of two LWSs (Great Farley and Dale Woods and Clent Hills). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains three Grade II listed buildings (Moor Hall and surrounding buildings). As such, there is potential for minerals development to significantly compromise this historic environment asset. There is potential for inter-visibility between the area of search and three Grade II listed buildings 70m to the north west and a Grade II listed building 130m to the south along with three more 200m to the south west to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search is comprised of Grades 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search is situated entirely within zone 3 of a Source Protection Zone. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to the Birmingham District and Hagley, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the north west in Holy Cross and to the south west in Belbroughton. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The receptors that could be sensitive to a mineral development are the PROWs and adjacent residential properties on Gorse Green Lane. Therefore, a significant negative effect is likely as the effects depend where mineral extraction occurs.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG20: Clent to Lydiate Ash

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		There is a PROW that passes the area of search on its southern boundary. There is also Sling Common adjacent to the eastern boundary of the parcel. Both of which could be sensitive to landscape changes from a potential mineral development.
impact.	-?	The area of search lies within a principal timbered farmland land cover type. Landscape characteristics that could be incompatible with mineral development include ancient woodland and a thick oak tree cover and field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Therefore, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to a SSSI (Sling Gravel Pits). The area is located within 1.5km of two LWSs (Sling Pool and Marsh and Great Farley and Dale Woods). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. However, there is potential for inter-visibility between the area of search and a Grade II listed building (Bell End Farmhouse) 210m to the west and two Grade II listed buildings (The Bell Inn and barn) 80m to the south which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is comprised of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is located within Source Protection Zone 3 and is adjacent to a number of sensitive receptors. In addition, a minor river passes through the centre of the land parcel. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This area of search is in close proximity to the Birmingham District and Hagley, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative impact is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access schools to the west in Belbroughton and north west in Holy Cross. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains a number of sensitive receptors that could be impacted by potential mineral development including PROWs, adjacent residential properties and The Bell pub on Heath End Lane. Therefore, a significant negative effect is likely as the impacts depend where mineral extraction occurs.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG21: Clent to Lydiate Ash

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		There are multiple PROWs and some residential areas that are contained within the area of search. In addition, Sling Common is adjacent to the northern boundary of the parcel and Lickey Hills and Waseley Hills, country parks are situated within 1.5km of the area of search.
and quality and minimise negative visual impact.	?	This area of search is comprised of two landscape types, Principal Settled Farmlands and Enclosed Commons. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Enclosed commons have a number of key characteristics are hedgerow boundaries to fields and planned woodland areas. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Therefore, a significant negative effect is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is adjacent to a SSSI (Madeley Heath Pit) and is in close proximity to another SSSI (Sling Gravel Pits). The area is adjacent to two LWSs (Great Farley and Dale Woods and Sling Pool and Marsh). The area is also located within 1.5km of four LWSs (Beacon Wood & Chadwich Wood, Broadmoor & Chadwich Manor Ponds, Waseley Hills Country Park and The Roughlands), a LNR (Waseley Hills Country Park) and a local geological site (Madeley Heath). As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains four Grade II listed buildings (Lower Madely Farmhouse, Castle Bourne, The Old Toll House and Hayes Farmhouse). As such, there is potential for minerals development to significantly compromise these historic environment assets. There is potential for inter-visibility between the area of search and two Grade II listed buildings 70m to the north west and three Grade II listed buildings 260m to the west which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and	-	The area of search is made up of Grades 2, 3 and 4 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The majority of this area of search is situated within zone 3 of a Source Protection Zone. However, the south western corner is comprised of a mix of zone 1 and 2. In addition, there are three minor rivers that pass through the area and a number of adjacent residential receptors. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This area of search is adjacent to Upper Marlbrook and is in close proximity to the Birmingham District and Hagley, all of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative impact is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. Depending on where minerals extraction takes place, there is potential for the severance of Public Rights of Way to significantly compromise the ability of people to access health, educational or other key local services in the settlements of Catshill and Bromsgrove by a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains a number of sensitive receptors that could be impacted by potential mineral development including PROWs and residential areas contained within the area of search. In addition, an overhead electricity line crosses the centre of the land parcel. Therefore, a significant negative effect is likely as the effects depend where extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search contains Quarry Lane household recycling centre, Sandy Lane landfill and biological treatment site, Chadwich Lane Quarry landfill site, Westside Forestry Ltd waste transfer station and Pinches 3 landfill and waste transfer station. The area also lies within 250m of Wildmoor Quarry transfer station. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	-?/+	This area of search is located within 250m of an area allocate for the provision of housing, therefore minerals development may compromise residential amenity of these. However, the area of search is being worked for sand and gravel which is used in housing construction. Overall, a minor negative effect with uncertainty and a minor positive effect are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
the local community.		
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG22: Clent to Lydiate Ash

System bility Approical Chicatives	CA Casya	Potential effects
Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search is adjacent to the settlement of Catshill and the northern boundary of the area of search borders the M5 motorway. In addition, there is a recreational playpark adjacent to the parcel. As such the above could all be sensitive to visual and landscape changes from a potential mineral development.
	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to a SSSI (Feckenham Forest). The area is located within 1.5km of a LWS (Round Hill). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. There is sufficient tree coverage and urban development between the area of search and a Grade II listed building 320m to the south to suggest that this historic environment site is unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is comprised of Grades 2 and 3 agricultural land. It also lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is situated entirely within Source Protection Zone 3 and adjacent to the residential area of Catshill. In addition, Battlefield Brook passes through the centre of the parcel. Therefore, a significant effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is adjacent to Upper Marlbrook and is in close proximity to the Birmingham District, both of which could be potential markets. The presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is located adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools to the south in Catshill. Therefore, a minor negative with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The settlement of Catshill is within 100m of the area of search and could be sensitive to a potential mineral development within this parcel. Due to the scale of the area of search the residential area is within 100m of any development across the whole parcel. Therefore, a significant negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?/+	This area of search is located adjacent to an area allocated for the provision of housing, therefore minerals development may compromise residential amenity of this development. However, the area of search is being worked for sand and gravel which is used in housing construction. Overall, a significant negative effect with uncertainty and a minor positive effect are likely for this objective, as effects depend on the exact scale and location of minerals development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG23: Clent to Lydiate Ash

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		Route 5 of the National Cycling Network (NCN) and multiple PROWs are contained within this area of search. In addition, Upper Catshill, Sports England sites (Spindles Health Club and Braces Lane recreation ground) and the M5 motorway are all adjacent to the parcel. The country parks of Lickey Hills and Waseley Hills are situated within 1.5km of the eastern boundary of the parcel.
impact.	?	This area of search is comprised of two landscape types, Principal Settled Farmlands and Enclosed Commons. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Enclosed commons have a number of key characteristics are hedgerow boundaries to fields and planned woodland areas. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Therefore, a significant negative effect is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to two SSSIs (Romsley Manor Farm and Romsley Hill). The area contains two LWSs (Broadmoor Wood & Chadwich Manor Ponds and The Roughlands) and is adjacent to LWS (Beacon Wood & Chadwich Wood). The area is located within 1.5km of seven LWSs (Round Hill, Great Farley and Dale Woods, Ell Wood Complex, Waseley Hills Country Park, Beacon Hill, Lickey Hills and Whetty Coppice) and a LNR (Waseley Hills Country Park). It is also within 1.5km of a local geological site, Madeley Heath. As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains four Grade II listed buildings (Lydiate Ash House and Gate Piers East of No.61, Gate Piers West of Chadwick Manor and farm buildings) and a Grade II* listed building (Chadwick Manor). As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through	-	The area of search is comprised of Grades 2, 3 and 4 agricultural land. It also lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies entirely within Source Protection Zone 3 and is adjacent to a number of sensitive receptors. In addition, a minor river passes through the middle of the parcel. Therefore, a significant negative with uncertainty is likely as the effect depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is adjacent to Upper Marlbrook and is in close proximity to the Birmingham District, both of which could be potential markets. The presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. Depending on where minerals extraction takes place, there is potential for the ability of people to access health, educational or other key local services in the settlements of Catshill and Bromsgrove to be significantly compromised by a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains or is adjacent to a number of sensitive receptors including PROWs, residential areas and the NCN. In addition, an overhead electricity line crosses the northern corner of the land parcel. Therefore, a significant negative effect is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search is located within 250m of Pitches 3 Quarry landfill and waste transfer station. A minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
the local community.		
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG24: Catshill, Blackwell and Cofton

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search is adjacent to the settlement of Upper Catshill, where the residential area could be sensitive to visual and landscape changes. In addition, Lickey Hills and Waseley Hill are situated within 1.5km of the area of search.
impact.	?	The area is entirely within the land cover parcel, enclosed commons. Enclosed commons have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Therefore, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to a SSSI (Bittell Reservoirs). The area is located within 1.5km of seven LWSs (Round Hill, The Roughlands, Shepley Marsh, Lickey Hills, Beacon Wood & Chadwich Wood and Beacon Hill) and a local geological site, Shepley Sandpit and Knoll. As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. Therefore, no effect is likely for this objective.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0	
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is made up of Grade 3 agricultural land and lies entirely with the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The entirety of the area of search is situated within Source Protection Zone 3 and is adjacent to the sensitive residential area of Catshill. Therefore, a significant negative effect with uncertainty is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to the Upper Marlbrook and Bromsgrove, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain or is adjacent to any Public Rights of Way. Whilst the area of search is adjacent to a residential area, it is assumed that roads will be retained and that the ability of people to access health, educational or other key local services to the south west in Catshill will not be compromised. Therefore, no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		Residential properties on the settlement edge of Catshill are within 100m of this area of search. They could be sensitive to a mineral development within this search area. Due to the scale of the area of search, the residential area is within 100m of development across the whole parcel. So therefore, a significant negative effect is likely.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG25: Catshill, Blackwell and Cofton

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains a community garden/allotment and is adjacent to the settlement of Upper Catshill, where the residential area could be sensitive to visual and landscape changes. In addition, Lickey Hills and Waseley Hill are situated within 1.5 km of the area of search.
impact.	?	The area is entirely within the land cover parcel, enclosed commons. Enclosed commons have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Therefore, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to a SSSI (Bittell Reservoirs). The area contains three LWSs (Round Hill, The Roughlands and Shepley Marsh). The area is located within 1.5km of seven LWSs (Spadesbourne Brook, Lickey Hills, Beacon Wood & Chadwich Wood, Broadmoor Wood & Chadwich Manor Ponds, Burcot Land Meadow, Linthurst Wood and Beacon Hill) and a local geological site, Shepley Sandpit and Knoll. As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This area of search is adjacent to Barnt Green Conservation area. As such, there is potential for minerals development to compromise this historic environment asset. There is sufficient tree coverage and urban development between the area of search and two Grade II listed buildings 500m to the east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area is made up of Grades 3 and 4 agricultural land. In addition, it also lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies entirely within Source Protection Zone 3 and is adjacent to a number of sensitive receptors. In addition, the source of a minor river is situated in the south western corner of the parcel. Therefore, a significant negative effect with uncertainty is likely as the effects depend on where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	This area of search is adjacent to Upper Marlbrook and is in close proximity to Bromsgrove, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative impact is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools and a GP surgery to the west in Catshill. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The residential areas of Marlbrook and Lickey Rednal are adjacent to the area of search and could be sensitive to dust, noise and emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG26: Catshill, Blackwell and Cofton

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search contains several PROWs, North Bromsgrove Cemetery and an employment site which could all be sensitive to visual and landscape changes. In addition, the residential area of Marlbrook, Route 5 of the NCN and a playing field are all adjacent to the area of search. All of which could also be visually impacted by a potential mineral development.
impace.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to two SSSIs (Oakland Pasture and Feckenham Forest). The area is located within 1.5km of five LWSs (Shepley Marsh, Battlefield Brook, Spadesbourne Brook, Burcot Lane Meadow and Round Hill). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. There is sufficient urban development between the area of search and two Grade II listed buildings 630m to the west and 700m to the north west to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Overall, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search is made up of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and adjacent to a number of sensitive receptors. In addition, the area of search is located just off the B4096, which leads into the Lickey End/Bromsgrove AQMA. A potential mineral development in this area of search could increase traffic in the AQMA. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral works occur in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area is adjacent to Upper Marlbrook and in close proximity to Bromsgrove, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools and GP surgery to the west in Catshill. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The receptors likely to be sensitive to dust, noise and emissions from a mineral development include the residential area of Catshill, North Bromsgrove Cemetery, the employment site and the multiple PROWs. Therefore, a significant negative effect with some uncertainty is likely, as the effects depend where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG27: Catshill, Blackwell and Cofton

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains several PROWs, Route5 of the NCN and Barnsley Hall outdoor sports/recreation site. All of which could both be sensitive to visual and landscape changes. In addition, the residential area of Sidemoor is adjacent to the southern boundary of the area of search.
and quality and minimise negative visual impact.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to two SSSIs (Oakland Pasture and Feckenham Forest). The area contains a LWS, Battlefield Brook. The area is located within 1.5km of five LWSs (Dodford Dingle, Spadesbourne Brook, Shepley Marsh, Burcot Lane Meadow and Round Hill). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites or Conservation Areas. There is sufficient tree coverage and urban development between the area of search and three Grade II listed buildings 650m to the south east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. There is a possibility two Grade II listed buildings 570m to the west could be compromised by inter-visibility with minerals development despite the presence of the M5 between them and the area of search which could significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green	-	The area of search is made up of Grades 2 and 3 agricultural land. In addition, the area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
belt value, maximising use of previously- developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is situated within zone 3 of a Source Protection Zone and a minor river passes through the centre of the parcel. It is adjacent to a number of sensitive receptors and the area of search is located just off the A38 and the M42, which leads into the Lickey End/Bromsgrove AQMA. A potential mineral development in this area of search could increase traffic in the AQMA. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	This area of search is adjacent to Lickey End and is in close proximity to Bromsgrove, both of which could be potential markets. The presence of a river suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive impact with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access health, educational or other key local services to the south in Bromsgrove. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search contains a number of sensitive receptors that could be sensitive to dust, nose and emission from a potential mineral development. These include; the residential properties in Sidemoor that are adjacent to the site, the PROWS, NCN and Barnsley Hall playing fields. Due to the scale and distribution of sensitive receptors across the parcel, it is assumed that at least one sensitive receptor could be impacted from mineral development within the whole area of search. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG28: Catshill, Blackwell and Cofton

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search contains several PROWs which could be sensitive to visual and landscape changes. In addition, the residential area of Blackwell, Sports England's Hunters Hill Technological College and Lickey End recreational ground and the M42 are all adjacent to the area of search. All of which could be impacted by a mineral development.
impoet.	?	The area of search is comprised of two land cover types. These include; Principal Settled Farmlands and Settled Farmlands with Pastoral Land Use. The western section of the parcel is characterised by large agricultural fields with limited vegetation and tree cover. On the other hand, the eastern side of the area of search, the fields are much smaller and has a dense tree cover. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to two SSSIs (Curcot Lane Cutting and Bittell Reservoirs). The area contains two LWSs, (Spadesbourne Brook and Burcot Lane Meadow). The area is located within 1.5km of six LWSs (Shepley Marsh, Linthurst Wood, Cock's Croft Wood, Cooper's Hill Wood, Meadow near Foxhill House and Round Hill) and a local geological site, Shepley Sandpit and Knoll. As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to two Grade II listed buildings (Trinity Methodist Memorial Church and Blackwell Road Railway). As such, there is potential for minerals development to significantly compromise this historic environment asset. There is potential for inter-visibility between the area of search and four Grade II listed buildings 300m from the south part of the area which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and	-	The area of search is made up of Grades 2, 3 and 4 agricultural land. In addition, the area lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
most versatile agricultural lands, land of green belt value, maximising use of previously- developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies entirely within zone 3 of a Source Protection Zone and is adjacent to a number of sensitive receptors. In addition, a minor river passes through the north western corner of the parcel. Therefore, a significant negative effect is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Lickey End and in close proximity to Bromsgrove, both of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be required to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the south west in Bromsgrove. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search is within 100m of a number of sensitive receptors that could be to be sensitive to dust, noise and emissions from a mineral development. These include the residential area of Blackwell, outdoor sports and recreation sites and PROWs. Therefore, a significant negative effect with some uncertainty is likely as the effects depend where mineral extraction exists in the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
the local community.		
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG29: Catshill, Blackwell and Cofton

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search contains several PROWs which could be sensitive to visual and landscape changes. In addition, the residential area of Barnt Green is adjacent to the parcel and the M42 passes the southern boundary of this area of search. Lickey Hill country park is situated with 1.5km of the area of search. All of the above could be impacted by a mineral development.
impace.	?	The area of search is comprised of Settled Farmlands with Pastoral Land Use land cover type. Key landscape characteristics that could be affected by mineral extraction are pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to a SSSI (Bittell Reservoirs). The area is located within 1.5km of eight LWSs (Lickey Hills, Shepley Marsh, Linthurst Wood, Cock's Croft Wood, Cooper's Hill Wood, Meadow near Foxhill House, Ponds around the Bittell Reservoirs and Round Hill) and two local geological sites, Shepley Sandpit and Knoll and Kendal End Farm. As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is adjacent to Barnt Green Conservation Area. As such, there is potential for minerals development to compromise this historic environment asset. There potential for intervisibility between the area of search and a Grade II listed building (The Red House) 120m to the north which may significantly compromise this historic environment asset. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-	-	The area of search is made up of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and is adjacent to a few sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Barnt Green and in close proximity to Bromsgrove, both of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the south west in Bromsgrove. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search contains a number of sensitive receptors likely to be sensitive to dust, noise and emissions from a mineral development. These include; residential properties on Fiery Hill Road and Linthurst Road and the multiple PROWs that cross the parcel. Therefore, a significant negative effect

Sustainability Appraisal Objectives	SA Score	Potential effects
		with some uncertainty is likely as the effect depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative impact is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

SSSG30: Blackwell Court to Brockhill

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains several PROWs and a number of outdoor sports and recreation facilities. In addition, the area of search is adjacent to the settlement of Blackwell.
Safeguard and strengthen landscape character and quality and minimise negative visual impact.	?	The area of search is comprised of two land cover types. These include; Principal Settled Farmlands and Settled Farmlands with Pastoral Land Use. The western section of the parcel is characterised by large agricultural fields with limited vegetation and tree cover. On the other hand, the eastern side of the area of search, the fields are much smaller and has a dense tree cover. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to three SSSIs (Hewell Park Lake, Burcot Lane Cutting and Bittell Reservoirs). The area is located within 1.5km of eight LWSs (Burcot Lane Meadow, Lickey Hills, Linthurst Wood, Cock's Croft Wood, Cooper's Hill Wood, Meadow near Foxhill House, Worcester and Birmingham Canal and Shortwood Rough Grounds) and of one local geological site, Shepley Sandpit and Knoll. As such, there is potential for minerals development to compromise the biodiversity and geodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains a Grade II listed building (Stoney Lane Farmhouse) and is adjacent to a Grade II listed building (Blackwell Road Railway Under Bridge). As such, there is potential for minerals development to significantly compromise these historic environment assets. There is also potential for inter-visibility between the area of search and Grade II listed building 60m to the west and south and a Grade II* and two Grade II listed buildings 90m to the east to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green	-	This area of search is made up of Grades 2 and 3 agricultural land. In addition, it lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
belt value, maximising use of previously- developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search is situated within zone 3 of the source protections zone and is adjacent to a number of sensitive receptor. Therefore, a significant negative effect is likely as the effect depends where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Blackwell and in close proximity to Barnt Green and Bromsgrove, all of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that HGVs will be required to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Solid sand and gravel extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the south west in Bromsgrove. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the	?	This area of search is within 100m of sensitive receptors that could to be sensitive to dust, noise and emissions from a mineral development. These include the residential area of Blackwell, Blackwell Golf Club and the multiple PROWs that cross the parcel. Therefore, a significant negative effect with

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		some uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	+	This area of search is not located within 250m of an area allocated for the provision of housing and is being worked for sand and gravel which is used in housing construction. Overall, a minor positive effect is likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward	0	The locations of strategic corridors and areas of search will not affect new technologies and

Sustainability Appraisal Objectives	SA Score	Potential effects
investment		innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Appendix 11 Appraisal Matrices for Silica Sand Area of Search Options

WFSS1

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search is not located within 1.5km of an AONB. There is one PROW that passes through the centre of the area of search, which could be sensitive to visual/landscape modifications.
and quality and minimise negative visual impact.	-?	This area is part of Sandstone Estatelands land cover parcel. Key characteristics that could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within close proximity of Areley Wood SSSI. It is also located within
Conserve and enhance Worcestershire's biodiversity and geodiversity.		1.5km of two Local Nature Reserves (Half Crown Wood and Redstone) and four Local Wildlife Sites (Redstone, Ribbesford Wood, River Severn and Hurtle Hill Farm Orchard). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, Conservation Areas or locally important historic parks and gardens. However, there is potential for
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	inter-visibility between the area of search and a Grade II listed building (Tudor Rose Cottage) 247m to the south which may significantly compromise this historic environment asset. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is consists of Grade 2 agricultural land. Therefore, a minor negative effect is likely.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	
SA5: Natural Resources		This area of search is located outside of a Source Protection Zone. However, Burnthorne Brook

Sustainability Appraisal Objectives	SA Score	Potential effects
Protect and enhance water and air quality.		passes through the area of search. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Areley Kings and Stourport-on-Severn, both could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access health, educational or other key local services in the Stourport-on-Severn to the north east. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-	The PROW and adjacent employment sites could be impacted by a potential mineral development in this area of search. There a minor negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.

Sustainability Appraisal Objectives	SA Score	Potential effects
more sustainable travel patterns.		
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not within 250m of an area allocated for the provision of housing. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce crime, fear of crime and antisocial behaviour.		

WFSS2

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search is not located within 1.5km of an AONB. There is one PROW that passes through the centre of the area of search and is adjacent to the residential area of Areley Wood, both of which could be sensitive to visual/landscape modifications.
impact.	-?	This area is part of Sandstone Estatelands land cover parcel. Key characteristics that could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to Areley Wood SSSI. It is also located within 1.5km of Half Crown Wood Local Nature Reserve and two Local Wildlife Sites (Ribbesford Wood and River Severn). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is potential for intervisibility between the area of search and Areley Kings Conservation Area (contains multiple Grade II and Grade II* listed buildings) 700m to the east due to the area search being located on an elevated area of land. As, such, minerals development could significantly compromise these historic environment assets. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is comprised of Grade 2 agricultural land. Therefore, a minor negative effect is likely.
SA5: Natural Resources	-	This area of search is outside of a Source Protection Zone and there are no water bodies or AQMAs that could be impacted by a potential mineral development. It is however adjacent to the residential

Sustainability Appraisal Objectives	SA Score	Potential effects
Protect and enhance water and air quality.		area of Areley Wood. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Areley Kings and Stourport-on-Severn, both could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of these which may compromise the ability of people to access health, educational or other key local services to the north east in Stourport-on-Severn. Therefore, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The PROW that passes through the area of search and adjacent residential area could be sensitive to a potential mineral development across the area of search. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.

Sustainability Appraisal Objectives	SA Score	Potential effects
more sustainable travel patterns.		
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not within 250m of an area allocated for the provision of housing. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce crime, fear of crime and antisocial behaviour.		

WFSS3

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search contains Stourport Rugby Club, Stourport-on-Severn Cricket Club and multiple PROWs. Hartlebury Common is adjacent to the eastern boundary of the area of search which could be sensitive to any visual and landscape changes.
impact.	?	This area of search is made up of two land cover types; Riverside Meadows and Sandstone Estatelands. Key landscape characteristics that could be affected by mineral extraction include low lying flood plain, pastoral land uses and individual tree cover character opposed to woodland. Sandstone Estatelands' key characteristics that could be affected by mineral extraction are arable land use and hedgerow field boundaries. The low topography of this area of the land parcel could increase the visibility of a potential mineral development. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to Areley Wood SSSI, and within close proximity to Hartlebury Common & Hillditch Coppice SSSI. It contains two Local Wildlife Sites (Redstone and River Severn), Redstone Local Nature Reserve and Redstone Rock Local Geological Site. It is also located within close proximity of two other Local Nature Reserves (Half Crown Wood and Hartlebury Common/Hillditch Pool) and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative but uncertain effect is likely, as the effect depends on the location and size of the mineral developments.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains two Grade II listed buildings (Coney-Green Farmhouse, Old Beams Public House) and is also located adjacent to multiple Grade II and Grade II* listed buildings. The Locally important Astley Hall is located within 1.5km of the area of search. The site is also adjacent to the Areley Kings conservation area. As such, there is potential for minerals development to significantly compromise these historic environment assets. There is also potential for inter-visibility and noise and dust disturbance between the area of search and multiple Grade II and Grade II* listed buildings located within Arley Kings Conservation Area which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and	-	The northern corner of the area of search lies within the Green Belt. In addition, the area is made up of urban and Grade 2 and 3 agricultural land. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The northern and southern sections of this area of search lie within Source Protection Zone 3 and it is adjacent to a number of sensitive receptors. In addition, the River Severn runs alongside the northern boundary of the parcel and four other minor rivers join the River Severn within this area of search. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Areley Kings and Stourport-on-Severn, both could be potential markets. However, the presence of rivers suggests that potentially suitable water links are available within the area, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Depending on where minerals are extracted from, there could be a significant impact on people's ability to access health, educational or other key local services within the settlement of Stourport-on-Seven through a physical barrier. Whilst the site contains parts of the B4194 road, it is assumed that this would not be compromised by any minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The PROWs and Sports England sites that are situated in the area of search could potentially be impacted by a mineral development. Therefore, a significant negative effect with some uncertainty is likely, as it depends on the specific location of mineral extraction.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search is located within 250m of Pelican Food Services physical treatment works and the OSS Group's physical treatment works. A minor negative effect is therefore likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?	This area of search contains a proposed allocation for housing development and is located adjacent to an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of these developments. As such, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS4

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		More than half of the site is currently in use for sports and recreation. This includes; Oldington Golf Range, Areley kings Sports Ground and Birmingham Metropolitan College. In addition, a PROW and Route 45 of the NCN are located within the area of search and the residential area of Stourport-on-Severn is adjacent to the parcel. All of these could be impacted by visual/landscape changes.
	?	The area of search comprises Sandstone Estatelands land cover type. Key landscape characteristics that could be affected by mineral extraction, include, arable land uses and hedgerow field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to River Stour Flood Plain SSSI, and within 1.5km of three other SSSIs (Hartlebury Common and Hillditch Coppice, Wilden Marsh and Meadows, and Devil's Spittleful). It is also located within 1.5km of two Local Nature Reserves (Burlish Top, and Hartlebury Common & Hillditch Coppice), Leapgate Old Railway Line Local Geological Site, and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to a Grade II listed building (47, Manor Road) the Staffordshire and Worcestershire Canal conservation area. As such, there is potential for minerals development to significantly compromise these historic environment assets. Whilst there is sufficient urban development between the area of search and Grade II listed buildings located 800m to the south to reduce the possibility of inter-visibility, there is still potential for noise and dust disturbance to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		The area of search is made up of Grades 2 and 3 agricultural land. It also lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies entirely with Source Protection Zone 3 and is adjacent to the Staffordshire and Worcestershire canal. In addition, this area of search is adjacent to a number of sensitive receptors and could lead to increased traffic in the Kidderminster AQMA. Therefore, a significant negative effect with uncertainty is likely, as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Kidderminster and Stourport-on-Severn, both could be potential markets. The presence of a canal suggests that potentially suitable water links are available next to the area for transporting minerals. While the canal is not directly adjacent to the area it is within 70m and depending on where mineral extraction takes places in the area will likely provide a suitable alternative, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search contains the whole of a Public Right of Way and part of a cycle route. Depending on where minerals are extracted from, people's ability to access health, educational and other key local services in the settlement of Stourport-on-Seven may be significantly compromised by a physical barrier. Whilst the area of search contains part of the A451, it is assumed that this would not be compromised by any minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The sports facilities, PROW and NCN contained in the area of search and adjacent residential area of Stourport-on-Severn to the area of search could be impacted by a potential mineral development. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste	-	This area of search contains Bonemill household recycling centre. A minor negative effect is therefore likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?	This area of search is located adjacent to an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. As such, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education)	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on

Sustainability Appraisal Objectives	SA Score	Potential effects
Raise the skills levels of qualifications of the workforce.		the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS5/SSSG4: North of Stourport

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search is not within 1.5km of an AONB. There is a PROW that passes the area of search along the eastern boundary, which could be sensitive to modifications to the landscape.
and quality and minimise negative visual impact.	-?	The area of search is situated within a Riverside Meadows land cover parcel. The area of search is characterised as a large pond on the River Stour flood plain, surrounded by a dense vegetated boundary. Key landscape characteristics that could be affected by mineral extraction include pastoral land use and individual tree cover character opposed to woodland. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is surrounded by River Stour Flood Plain SSSI. It is also located within close
Conserve and enhance Worcestershire's biodiversity and geodiversity.		proximity to Wilden Marsh and Meadows SSSI. The area is located within 1.5km of Hatlebury Common & Hillditch Coppice SSSI, two Local Nature Reserves (Burlish Top, and Hartlebury Common & Hillditch Coppice), Leapgate Old Railway Line Geological Site, and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient urban
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	development and tree coverage between the area of search and three Grade II listed buildings located around 700m to the south to suggest that these historic environment sites are unlikely to be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is situated within Source Protection Zone 3 and is comprised of predominately Wilden Pool and the River Stour passes the parcel adjacent to the southern boundary. In addition, the area is adjacent to a number of sensitive receptors. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Kidderminster and Stourport-on-Severn, both could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access health, educational or other key local services to the south west in Stourport-on Severn. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	Receptors that could be sensitive to dust, noise and emissions from a potential mineral development are the PROW and employment site, within 100m of the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score		Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-		This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.		+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	+	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective for WFSS5. Minor positive effects are likely for SSSG4, as sand and gravel is used in housing construction.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.		0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0		Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS6/SSSG5: North of Stourport

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character	?	This area of search is not within 1.5km of an AONB. Route 54 of the National Cycling Network passes the area of search along the eastern boundary and a PROW is adjacent to the southern boundary.
and quality and minimise negative visual impact.		The area of search is situated within a Riverside Meadows land cover parcel. It is characterised by the meandering River Stour flood plain that follows a pattern of low topography and limited tree cover. Key landscape characteristics that could be affected by mineral extraction include pastoral land use and individual tree cover character. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to two SSSIs (Wilden Marsh & Meadows, and River Stour Flood Plain). It is also located adjacent to three Local Wildlife Sites (Wilden Marsh & Meadows, River Stour, and Staffordshire & Worcestershire Canal), and within 1.5km of Burlish Top Local Nature Reserve, two other Local Wildlife Sites (Burlish Camp and Vicarage Farm Heath) and Leapgate Old Railway Line Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search is located adjacent to the Staffordshire and Worcestershire Canal conservation area. As such, there is potential for minerals development to compromise this historic environment
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	asset. Overall, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is situated within Source Protection Zone 3 and is adjacent to several sensitive receptors. In addition, the River Stour and a canal both pass through the area of search. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Kidderminster and in close proximity to Stourport-on-Severn, both of which could be potential markets. The presence of rivers suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is located adjacent to a public right of way. Minerals development could lead to diversion of this which may compromise the ability of people to access health, educational or other key local services to the south west in Stourport-on-Severn. Therefore, minor negative effects with uncertainty are likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The NCN, PROW and employment site are all within 100m of the area of search, where they could be sensitive to dust, noise and emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search is located within 250m of ICL Environmental Services Ltd waste transfer station and Lawrence Skip Hire waste transfer station. A minor negative effect is therefore likely.

Sustainability Appraisal Objectives	SA Sc	ore	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	4	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.		+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	+	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for WFSS6. Minor positive effects are likely for SSSG5, as sand and gravel is used in housing construction
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.		0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development.
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.		0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS7

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual	?	The area of search contains a number of PROWS, community garden/allotments, Hillary Road Common and outdoor recreational site Wilden Top. In addition, the area of search is adjacent to the residential area of Kidderminster which could be sensitive to landscape/visual modifications.
impact.		This area of search is made up of two land cover types; Riverside Meadows and Sandstone Estatelands. Key landscape characteristics that could be affected by mineral extraction include low lying flood plain, pastoral land uses and individual tree cover character opposed to woodland. Sandstone Estatelands' key characteristics that could be affected by mineral extraction are arable land use and hedgerow field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to five SSSIs (Hurcott Pasture, Hurcott & Podmore Pools, River Stour Flood Plain, Hartlebury Common & Hillditch Coppice, and Wilden Marsh & Meadows). It contains a number of Local Wildlife Sites, and is adjacent to two Local Nature Reserves (Hurcott Wood and Spennells Valley). The area is also within 1.5km of a number of other Local Wildlife Sites and two Local Geological Sites (Worcester Road Cutting and Hartlebury Common). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains multiple Grade II listed buildings (Wilden Viaduct, Church of All Saints, The Glebe House and Park Hall) and is also located adjacent to the Staffordshire and Worcestershire Canal Conservation Area and multiple Grade II listed buildings. Additionally, the area of search is within 1.5km of Grade II listed Hartlebury Castle garden and locally important parks, Sion House and Monks. As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search consists of Grades 2 and 3 agricultural land. In addition, the entirety of the area lies within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies entirely within Source Protection Zone 3. In addition, there are five lakes and six rivers that are contained within the area of search and it is adjacent to a number of sensitive receptors. Therefore, a significant negative effect is likely as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Kidderminster and Stourport-on-Severn, both of which could be potential markets. This area of search is located in close proximity to rivers which could potentially be used for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little to zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way and cycle routes cross the area. The ability of people to access educational services could be significantly compromised by a physical barrier to a school within the area of search. Whilst the site contains parts of the A448 and A456 roads, it is assumed that they would not be compromised by any minerals development. Therefore, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	This area of search is within 100m of residential properties in Kidderminster, two primary schools, multiple PROWS and recreational facilities. In addition, two overhead electricity lines cross this area of search. Overall, a significant negative effect with uncertainty is likely as it depends on the specific location of mineral extraction within the area of search.
SA10: Waste	-	This area of search contains Summerway landfill and waste transfer station, and is located within 250m of Bonemill household recycling centre and ICL Environmental Services Ltd waste transfer

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		station. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	?/+	This area of search contains proposed allocations for mixed use development and employment development. Depending on where mineral extraction takes place, this development could be compromised. However, any new minerals extraction in the area will likely provide new employment opportunities. Overall, an uncertain significant negative and a minor positive effect are likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?	This area of search contains a proposed allocation for housing development, is located within 250m of two areas allocated for the provision of housing and also contains a proposed allocation for mixed use development. Therefore minerals development could compromise these developments. As such, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development.
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS8/SSSG13: North east of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search is adjacent to the residential area of Kidderminster and a PROW passes the area of search on the western boundary. Both of which could be sensitive to visual/landscape modifications.
and quality and minimise negative visual impact.	?	This area of search lies within Riverside Meadows land cover type. The landscape is characterised by woodland within the suburbs of Kidderminster. There is a dense tree cover with an opening for a footpath to cut across the parcel. Key landscape characteristics that could be affected by mineral extraction include pastoral land use and individual tree cover character. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located directly adjacent to Puxton Marshes SSSI. It is also located within 1.5km of Stourvale Marsh SSSI, Blakemarsh Local Nature Reserve, and four Local Wildlife Sites
Conserve and enhance Worcestershire's biodiversity and geodiversity.		(Wolverley Court Lock Carr, River Stour, Puxton Mash, and Staffordshire & Worcestershire Canal). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. Whilst there is tree coverage and urban development between the area of search and a Grade II listed building 200m to the south to reduce the possibility of inter-visibility, there is still potential for noise and dust disturbance to significantly compromise this historic environment asset. In addition, locally important Sionhill House park/garden is situated within 1.5km of the area of search. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search does not lie within the Green Belt and consists of Grade 4 agricultural land.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	0	Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3, a flood storage area and is adjacent to a number of sensitive receptors. In addition, mineral development could increase traffic in the Horsefair/Coventry Street AQMA, which is situated 800m from the parcel. Overall, a significant negative effect with some uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area lies within Kidderminster, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be some to very little net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to part of a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access health, educational or other key local services to the south in Kidderminster. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is within 100m of Kidderminster, a PROW and an industrial area. Due to the scale of this area of search it is assumed that a sensitive receptor could be impacted by a mineral development anywhere within the whole parcel. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Sc	ore	Potential effects
and composting, 4) recovery, 5) disposal.			
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.			This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	-	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	-?	-?/+	This area of search is located within 250m of an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development As such, minor negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development. For SSSG13, these effects are likely to be mixed with minor positive effects, as sand and gravel is used in housing construction.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	()	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	()	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the	()	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not

Sustainability Appraisal Objectives	SA Score	Potential effects
workforce.		affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS9/SSSG14: North east of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search is adjacent to residential properties in Kidderminster and Route 54 of the NCN passes through the area of search along the eastern boundary. All of which could be sensitive to visual/landscape changes from a potential mineral development.
impact.		The area of search comprises Riverside Meadows land cover type. Key landscape characteristics that could be affected by mineral extraction include pastoral land use and tree cover character of individual trees rather than woodland. The eastern boundary of the area of search slopes downwards into the parcel with a low wooden fence that separates the area of search and the adjacent housing. This could be incompatible with mineral development as adjacent houses have clear views into the entire parcel. Therefore, a significant negative effect is likely.
SA2: Biodiversity and geodiversity		This area of search is located directly adjacent to Puxton Marshes SSSI and Stourvale Marsh SSSI. It
Conserve and enhance Worcestershire's biodiversity and geodiversity.		is also located within 1.5km of three SSSIs (Stourvale Marsh, Hurcott Pasture, and Hurcott & Podmore Pools), Blakemarsh Local Nature Reserve, and four Local Wildlife Sites (Wolverley Court Lock Carr, River Stour, Puxton Marsh, and Staffordshire & Worcestershire Canal). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search is located adjacent to Staffordshire and Worcestershire Canal Conservation Area. As such, there is potential for minerals development to compromise this historic environment asset.
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	In addition, locally important Sionhill House park/garden is within 1.5km of the area of search. There is sufficient tree coverage and urban development between the area of search and a Grade I listed building (The Parish Church of St Mary and All Saints) and multiple Grade II listed buildings 500m to the south to suggest that these historic environment assets will not be significantly compromised by inter-visibility with minerals development. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search lies outside of the Green Belt and consists of Grade 4 agricultural land. Therefore, no effect is likely.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	0	no circle is incly.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is situated within Source Protection Zone 3, a flood storage area and the River Stour passes along the western boundary of the area of search. There are also a number of sensitive receptors adjacent to the area of search. In addition, a mineral development could increase traffic in the Horsefair/Coventry Street AQMA, which is situated 800m from the parcel. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area lies within Kidderminster, which could be a potential market. The presence of rivers suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services within the settlement of Kidderminster. Therefore, no effects are likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is within 100m of Kidderminster and Route 54 of the NCN. Due to the scale of this area of search it is assumed that a sensitive receptor could be impacted by mineral development within the whole parcel. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	??/+	This area of search is located adjacent to an area allocated for the provision of housing and is within 250m of another, therefore mineral development could compromise residential amenity of this development. As such, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development. For SSSG14 this is mixed with a minor positive effect, as sand and gravel is used in housing construction.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education)	0	Although exposure of geological features through minerals extraction can provide research and

Sustainability Appraisal Objectives	SA Score	Potential effects
Raise the skills levels of qualifications of the workforce.		education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS10/SSSG15: North east of Kidderminster

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search is adjacent to residential properties in Kidderminster and St Marys C of E Primary School. Both of which could be sensitive to visual/landscape changes from a potential mineral development.
impact.		The area of search comprises Riverside Meadows land cover type. Key landscape characteristics that could be affected by mineral extraction include pastoral land use and tree cover character of individual trees rather than woodland. The western side of the area of search is characterised as a green space with a play park separated from adjacent housing by flowerbed boundaries. This could be incompatible with mineral development as adjacent houses have clear views into the entire parcel. Therefore, a significant negative effect is likely.
SA2: Biodiversity and geodiversity		This area of search is located within close proximity to two SSSIs (Stourvale Marsh and Puxton
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Marshes). It is located within 1.5km of two other SSSIs (Hurcott Pasture and Hurcott & Podmore Pools), Blakemarsh Local Nature Reserve, and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This area of search is located adjacent to Staffordshire and Worcestershire Canal conservation area. As such, there is potential for minerals development to compromise this historic environment asset. In addition, locally important Sionhill House park/garden is within 1.5km of the area of search. There is sufficient tree coverage and urban development between the area of search and a Grade I listed building (The Parish Church of St Mary and All Saints) and multiple Grade II listed buildings 690m to the south to suggest that these historic environment assets will not be significantly compromised by inter-visibility with minerals development. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-?	The area of search is located outside of the Green Belt. In addition, it consists of urban and Grade 3 agricultural land. Therefore, a minor negative effect with some uncertainty is likely, as the effect depends on whether the land is Grade 3a, Grade3b or urban.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.		The area of search lies entirely within Source Protection Zone 3 and is adjacent to a number of sensitive receptors. In addition, the River Stour passes through the centre of the area of search. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area lies within Kidderminster, which could be a potential market. The presence of rivers suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little or zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services within the settlement of Kidderminster. Therefore, no effects are likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is within 100m of the residential area of Kidderminster and St Marys C of E Primary School. Due to the scale of this area of search it is assumed that a sensitive receptor could be impacted by a mineral development within the whole parcel. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Sc	ore	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?		This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.		+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	+	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for WFSS10. Minor positive effects are likely for SSSG15, as sand and gravel is used in housing construction.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0		The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0		Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS11

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search contains Springfield Park, a Sports England site and is adjacent to residential properties in Broadwaters and a PROW. All of which could be sensitive to visual/landscape changes from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely, as it depends on exact locations of mineral extraction.
	?	This area of search is made up of two land cover types; Riverside Meadows and Sandstone Estatelands. The area of search is characterised by a large green open space bounded by thick hedgerow and tall trees. Key landscape characteristics that could be affected by mineral extraction include low lying flood plain, pastoral land uses and individual tree cover character opposed to woodland. Sandstone Estatelands' key characteristics that could be affected by mineral extraction are arable land use and hedgerow field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity of two SSSIs (Stourvale Marsh and Puxton Marshes). It is located within 1.5km of two other SSSIs (Hurcott Pasture and Hurcott & Podmore Pools), Hurcott Wood Local Nature Reserve, and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This area of search is located adjacent to Staffordshire and Worcestershire Canal conservation area. As such, there is potential for minerals development to compromise this historic environment asset. In addition, locally important Sionhill House park/garden is within 1.5km of the area of search. There is sufficient tree coverage between the area of search and a Grade II listed building (Sion Hill House) 520m to the north and multiple Grade II listed buildings 750m to the south to suggest that these historic environment assets will not be significantly compromised by inter-visibility with minerals development. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-	-?	The area of search is situated outside of the Green Belt and is comprised of urban and grade 3 agricultural land. Therefore, a minor negative effect with uncertainty is likely, as the effect depends on whether the land is Grade 3a, Grade3b or urban.

Sustainability Appraisal Objectives	SA Score	Potential effects
developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.		The area of search lie within a Source Protection Zone 3 and the Staffordshire and Worcestershire Canal passes through the centre of the area of search. In addition, the area is adjacent to a number of sensitive receptors. Therefore, a significant negative effect is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Kidderminster, which could be a potential market. The presence of a canal suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little or zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access health, educational or other key local services to the south in Kidderminster Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		This area of search is within 100m of a residential area (Broadwaters), Springfield Park and a PROW. Due to the scale of this area of search it is assumed that a sensitive receptor could be impacted by development within the whole parcel. Therefore, a significant negative effect is likely.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The entirety of the area of search is within Broadwaters Mill Park and is adjacent to the residential area of Broadwaters. All of which could be sensitive to landscape/visual modifications.
and quality and minimise negative visual impact.		The area of search is situated within Sandstone Estatelands land cover type. Key characteristics that could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. This area of search is characterised by an urban park with regularly planted trees and flowerbeds that separates housing in Broadwaters and Kidderminster. There is no boundary between the area of search and the adjacent housing, which may make this area of search incompatible with mineral development as it would be clearly visible from the residential area. Therefore, a significant negative effect is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to Hurcott & Podmore Pools SSSI. It is also within close proximity to three other SSSIs (Hurcott Pasture, Stourvale Marsh and Puxton Marshes) and partially contains Hurcott & Podmore Pools Local Wildlife Site. This area of search is also within 1.5km of a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This area of search does not contain or is adjacent to any national historic environment sites or conservation areas. There is sufficient urban development between the area of search and a Grade II listed building (Sion Hill House) 700m to the north west to suggest this historic environment asset will not be significantly compromised by inter-visibility with minerals development. However, the area of search is within 1.5km of locally important Sionhill House park/garden. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	0	The area of search is outside of the Green Belt and is classified as urban land with regards to agricultural land classification, although it appears to be greenfield (from aerial photography). Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and is adjacent to Podmore Pool and a number of sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as it depends on where mineral extraction occurs within the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area lies within Kidderminster, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services within the settlement of Kidderminster. This area of search is located adjacent to the A451 but it is assumed that this road will be retained during minerals development. Therefore, no effects are likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The area of search is contained within Broadwaters Mill Park and is within 100m of the adjacent residential area. Due to the scale of this area of search it is assumed that a sensitive receptor could be impacted by noise, dust and emissions from development within the whole parcel. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The entirety of the area of search is within Broadwaters Mill Park and is adjacent to the residential area of Broadwaters. All of which could be sensitive to landscape/visual modifications.
and quality and minimise negative visual impact.		The area of search is situated within Sandstone Estatelands land cover type. Key landscape characteristics that could be affected by mineral extraction, such as, arable land use and hedgerow boundaries to fields. This area of search is characterised as an urban park with regularly planted trees and flowerbeds. The southern section of the area of search is a wooded area on the edge of Podmore Pool. There is no boundary between the area of search and the adjacent housing, which could mean this area of search, is incompatible with mineral development as it would be clearly visible from the housing. Therefore, a significant negative effect is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to Hurcott & Podmore Pools SSSI. It is also within close proximity to three other SSSIs (Hurcott Pasture, Stourvale Marsh and Puxton Marshes) and partially contains Hurcott & Podmore Pools Local Wildlife Site. This area of search is also within 1.5km of Hurcott Wood Local Nature Reserve and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient urban development between the area of search and a Grade II listed building (Sion Hill House) 660m to the north west to suggest this historic environment asset will not be significantly compromised by intervisibility with minerals development. In addition, the area of search is within 1.5km of locally important Sionhill House park/garden. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-?	The area of search is classified as urban land. However, the southern section of the area of search is in the Green Belt. Therefore, a minor negative effect with some uncertainty is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and part of Podmore Pool is contained in the parcel. In addition, it is adjacent to a number of sensitive receptors in Broadwaters. Therefore, a significant negative effect with uncertainty is likely as it depends on where mineral extraction occurs within the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area lies within Kidderminster, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be a significant net loss of tree cover due to mineral extraction. Overall, a significant negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services within the settlement of Kidderminster This area of search is located adjacent to the A449 but it is assumed that this road will be retained during minerals development. Therefore, a no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The area of search is contained within Broadwaters Mill Park and is within 100m of adjacent Broadwaters. Due to the scale of this area of search it is assumed that a sensitive receptor could be impacted by noise, dust and emissions from development within the whole parcel. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all		This area of search is not located within 250m of an area allocated for employment development or
Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing		This area of search is not located with 250m of an area allocated for housing provision. Therefore, no
Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	effects are likely for this objective.
SA14: Participation by all		The locations of strategic corridors and areas of search will not affect the ability of communities to
Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not

Sustainability Appraisal Objectives	SA Score	Potential effects
workforce.		affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS14

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search contains multiple PROWS. In addition, the parcel is adjacent to housing in Broadwaters and Cookley and outdoor recreational sites, Lea Castle Sports Ground and St Oswald C.E Primary School. All of which could be impacted by visual and landscape modifications from a potential mineral development.
	?	The area of search is comprised of Sandstone Estatelands land cover type. Key landscape characteristics that could be affected by mineral extraction, are, arable farming land use and hedgerow boundaries to fields. There are wooded areas in the centre and south of the area of search, which could be incompatible with landscape alterations from a potential mineral development. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located adjacent to three SSSIs (Hurcott Pasture, Stourvale Marsh and Hurcott & Podmore Pools). It contains Hurcott Wood Local Nature Reserve, four Local Wildlife Sites (Counsall Marsh, The Island Pool, Wolverley Court Lock Carr and Hurcott & Podmore Pools), and lies within 1.5km of a number of other Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains multiple Grade II listed buildings (Sion Hill House, North Lodges and Gateway of Lea Castle, Ismre House), a locally important park and garden (Sion Hill House) and is adjacent to Staffordshire and Worcestershire Canal Conservation Area. As such, there is potential for minerals development to significantly compromise these historic environment assets. There is potential for inter-visibility between the area of search and two Grade II listed buildings (Parr's Farmhouse and barn) located 170m north east of the site which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	This area of search is consists of Grade 2 and 3 agricultural land. In addition, the area lies entirely within the Green belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated entirely within Source Protection Zone 3 and is adjacent to a number of sensitive receptors in Broadwaters and Cookley. In addition, the A449 which crosses the area of search leads into the Horsefair/Coventry Street AQMA. Development within this area of search could result in more traffic in the AQMA. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	+?	The area is adjacent to Kidderminster, which could be a potential market. The presence of a canal suggests that potentially suitable water links are available within the area for transporting minerals, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. There will be very little or zero net loss of tree cover. Overall, a minor positive effect with uncertainty is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number on Public Rights of Way cross the area and could significantly compromise the ability of people to access health, educational or other key local services within the settlement of Kidderminster through a physical barrier. Whilst the area does contain parts of the A449, A451 and B4189 roads it is assumed that they would not be compromised by any minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search is within 100m of St Oswalds Primary School, Heathfield Knoll Secondary School, residential areas of Broadwaters and Cookley and multiple PROWs. All of which could be sensitive to noise, dust and emissions from a potential mineral development. In addition, there is an overhead electricity line the crosses the north eastern corner of the area. Therefore, a significant negative effect with some uncertainty is likely as it depends on where mineral extraction occurs in the area.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	+?	This area of search may require road-based movement by HGVs, however there is potential for more sustainable means of transport since there may be suitable water links available, although this is uncertain, as it will depend on loading/unloading facilities and route availability between source and destination. Overall, a minor positive effect with uncertainty is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	?/+	This area of search contains a proposed allocation for mixed use development. Depending on where mineral extraction takes place, this development could be significantly compromised. However, any new minerals extraction in the area will likely provide new employment opportunities. Overall, an uncertain significant negative and a minor positive effect are likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?	This area of search is located adjacent an area allocated for the provision of housing and contains a proposed allocation for mixed use development. Therefore, minerals development could compromise of these developments. As such, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search is adjacent to the residential areas of Broadwaters and Green Hill which could be sensitive to landscape/visual modifications.
and quality and minimise negative visual impact.		The area of search is situated within Sandstone Estatelands land cover type. Sandstone Estatelands' key characteristics that could be affected by mineral extraction are arable land use and hedgerow field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; due to the size of this area of search and proximity to the residential area. Overall, a significant negative effect is likely.
SA2: Biodiversity and geodiversity		This area of search is located directly adjacent to two SSSIs (Hurcott Pasture and Hurcott & Podmore
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Pools). It comprises Hurcott & Podmore Pools Local Wildlife Site, and is located within 1.5km of two other SSSIs (Stourvale Marsh and Puxton Marshes), Hurcott Wood Local Nature Reserve, and four other Local Wildlife Sites (Wolverley Court Lock Carr, River Stour, Puxton Marsh, and Staffordshire & Worcestershire Canal). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient urban
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	-?	development between the area of search and a Grade II listed building (Sion Hill House) 900m to the north east to suggest that this historic environment asset will not be significantly compromised by inter-visibility with minerals development. However, the area of search is within 1.5km of locally important Sionhill House park/garden. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is classified as urban land. However, it lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and is adjacent to Podmore Pool and a number of sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area lies within Kidderminster, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be some to very little net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services within the settlement of Kidderminster. Therefore, no effects are likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The area of search is within 100m of the adjacent residential area of Broadwaters and Green Hill. Due to the scale of this area of search it is assumed that a sensitive receptor could be impacted by development across the whole parcel. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	The area of search is situated within Sandstone Estatelands land cover type. Sandstone Estatelands' key characteristics that could be affected by mineral extraction are arable land use and hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to two SSSIs (Hurcott Pasture and Hurcott & Podmore Pools). It is located within Hurcott Wood Local Nature Reserve and within 1.5km of four Local Wildlife Sites (Wolverley Court Lock Carr, Churchill & Blakedown Valleys, Hurcott & Podmore Pools and Staffordshire & Worcestershire Canal). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient tree coverage between the area of search and a Grade II listed building (Park Hall) 680m to the east to suggest that this historic environment asset will not be significantly compromised by inter-visibility with minerals development. The area of search is located within 1.5km of locally important Sionhill House park/garden, although impacts are considered unlikely as it is on the opposite side of the settlement of Broadwaters. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.
SA5: Natural Resources	?	The area of search is situated with Source Protection Zone 3 and Hurcott Pool is adjacent to the southern boundary of the parcel. Therefore, a significant negative effect with uncertainty is likely as it

Sustainability Appraisal Objectives	SA Score	Potential effects
Protect and enhance water and air quality.		depends on the exact location of mineral extraction in the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area is in close proximity to Kidderminster, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be a significant net loss of tree cover due to mineral extraction. Overall, a significant negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services within the settlement of Kidderminster. Therefore, no effects are likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There are no sensitive receptors within 100m of the area of search. Therefore, a no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.

Sustainability Appraisal Objectives	SA Score	Potential effects
more sustainable travel patterns.		
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce crime, fear of crime and antisocial behaviour.		

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape		The area of search is not adjacent to any sensitive receptors, nor is it within 1.5km of an AONB.
Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	This area is part of Sandstone Estatelands land cover parcel. Key landscape characteristics that could be affected by mineral extraction are arable land use and hedgerow field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located directly adjacent to Hurcott & Podmore Pools SSSI. It falls within
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Hurcott Wood Local Nature Reserve, and is located within 1.5km of two Local Wildlife Sites (Churchill & Blakedown Valleys and Hurcott & Podmore Pools). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology		This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient tree coverage
Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	between the area of search and a Grade II listed building (Park Hall) 530m to the east to suggest that this historic environment asset will not be significantly compromised by inter-visibility with minerals development. However, there is potential for noise and dust disturbance to disrupt the setting of this listed building. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is comprised of Grade 3 agricultural land and lies entirely within the Green Belt.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	Therefore, a minor negative effect is likely.
SA5: Natural Resources		The area of search lies within Source Protection Zone 3. In addition, a minor river is adjacent to the
Protect and enhance water and air quality.	?	southern boundary of the area of search. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area is in close proximity to Kidderminster, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. The area is entirely within woodland, therefore there will be a significant net loss of tree cover due to mineral extraction. Overall, a significant negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services within the settlement of Kidderminster. Therefore, no effects are likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There are no sensitive receptors within 100m of the area of search. Therefore, a no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
behaviour.		

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Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search contains multiple PROWS and several outdoor sports/recreation sites, Churchill and Blakedown golf and recreational ground. In addition, the parcel is adjacent to housing in Blakedown. All of which could be impacted by visual and landscape modifications from a potential mineral development.
impact.	?	This area is part of Sandstone Estatelands land cover parcel. Key landscape characteristics that could be affected by mineral extraction, include, arable agricultural land use and hedgerow field boundaries. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located directly adjacent to Hurcott & Podmore Pools SSSI. It partially contains Hurcott Wood Local Nature Reserve, as well as Churchill & Blakedown Valleys Local Wildlife Site. It is within 1.5km of two Local Wildlife Sites (Hurcott & Podmore Pools and Broome Tower Mustard Verge). Overall, a significant negative but uncertain effect is likely, as the effect depends on where the minerals are extracted from. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains three Grade II listed buildings (Milestone, Springbrook Forge and Harborough Hall) and is adjacent to multiple Grade II listed buildings, Churchill conservation area and a scheduled monument (Churchill Forge). As such there is potential for minerals development to significantly compromise these historic environment assets. There is potential for inter-visibility between the area of search and two Grade II listed buildings (Parr's Farmhouse and barn) 700m to the west and a Grade II listed building (Park Hall) 200m to the south which may significantly compromise these historic environment assets. In addition. The area of search is within 1.5km of locally important Broome Hill park/garden. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search consists of Grade 2 and 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated with Source Protection Zone 3 and contains or is adjacent to a number of sensitive receptors in Blakedown and Hagley. However, a minor river passes through the centre of the area of search. Therefore, a significant negative with uncertainty is likely, as it depends on the specific location of mineral extraction in the area of search and its proximity to the water body.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to West Hagley and in close proximity to Kidderminster, both of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be required to transport minerals. There will be very little to zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Depending on where minerals are extracted from, people's ability to access health, educational and other key local services in the settlement of Kidderminster may be significantly compromised by physical barrier. Whilst the area of search includes part of the A456, it is assumed that this would not be compromised by any minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains multiple PROWs, two outdoor recreation sites and an overhead electricity line that passes the south western corner of the area of search. In addition, the residential areas of Blakedown and Hagley are within 100m of the area of search. Therefore, a significant negative effect with some uncertainty is likely as the effects depend where mineral extraction occurs.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs to transport minerals. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?	This area of search is located adjacent to two areas allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. As such, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education)	0	Although exposure of geological features through minerals extraction can provide research and

Sustainability Appraisal Objectives	SA Score	Potential effects
Raise the skills levels of qualifications of the workforce.		education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

WFSS19

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search contains multiple PROWS and is adjacent to residential properties in Lower Clent and Clent Hills country Park. All of which could be impacted by visual and landscape modifications from a potential mineral development.
impact.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within 1.5km of two Local Wildlife Sites (Hagley Wood and Clent Hills)
Conserve and enhance Worcestershire's biodiversity and geodiversity.	-	and Hagley Hall Quarry Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a minor negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to a Grade II listed building (Clent House Farmhouse) and is also adjacent to Clent conservation area. As such there is potential for minerals development to significantly compromise these historic environment assets. There is sufficient tree cover between the area of search and a Grade I, a Grade II* and multiple Grade II listed buildings 480m to the north to suggest that these historic environment assets will not be significantly compromised by inter-visibility with minerals development. However, there is potential for them to be significantly compromised by noise and dust disturbance. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The majority of the area of search is located within Grade 3 agricultural land and the western boundary is within Grade 2 agricultural land. In addition, the area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-?	The area of search is situated within Source Protection Zone 3 and is adjacent to a number of sensitive receptors in Lower Clent. In addition, a mineral development could increase traffic in the Hagley AQMA, 600m from the area of search. Therefore, a minor negative effect with some uncertainty is likely as it depends on exactly where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to West Hagley and Stourbridge, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the north west in Hagley. Therefore, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains multiple PROWs and the residential area of Lower Clent is within 100m of the area of search. Where sensitive receptors could be impacted by noise, dust and other emissions, Therefore, a significant negative effect with some uncertainty is likely as effects depend where mineral extraction occurs in the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search is not adjacent or within 1.5km of an AONB. However, there is a PROW adjacent to the northern boundary of the area of search, which could be visually impacted by a potential mineral development.
impact.	-?	The area of search is within a Principal Settled Farmland land cover type. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. The area of search is characterised by large fields for arable farming purposes with limited vegetation boundaries. The openness of the landscape could be incompatible with mineral development as negative visual impact could be maximised. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to Sling Gravel Pits SSSI. It is also located within 1.5km of two Local Wildlife Sites (Clent Hills, and Sling Pool and Marsh). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. However, there is potential for inter-visibility between the area of search and Grade II listed buildings 190m to the north east (Moor Hall and surrounding buildings) and 300m to the north (Walton House and surrounding buildings) which may significantly compromise these historic environment assets. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search lies entirely within Source Protection Zone 3. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to West Hagley, which could be a potential market. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to severance of this which may compromise the ability of people to access schools to the north west in Holy Cross and south west in Belbroughton. Therefore, a minor negative effect with uncertainty is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	The area of search is within 100m of a PROW, which could be sensitive to noise, dust and emissions from a potential mineral development. Therefore, a minor negative effect with some uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport	-	This area of search will require road-based movement by HGVs because there are no sustainable

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce the need to travel and move towards more sustainable travel patterns.		means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search contains two PROWs and is adjacent to Hollies Hill Common. Both of which could be visually impacted by a potential mineral development.
and quality and minimise negative visual impact.	-?	The area of search is comprised of Principal Settled Farmland and Enclosed Commons land cover types. The landscape characteristics, to principal settled farmland, that could be affected by mineral extraction are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Enclosed commons key characteristics that could be affected by mineral extraction are thick vegetated hedgerow boundaries to fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to Sling Gravel Pits SSSI. It is also located within 1.5km of three Local Wildlife Sites (Clent Hills, Great Farley & Dale Woods, and Sling Pool and Marsh). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. However, there is potential for inter-visibility between the area of search and a Grade II listed building (Bell End Farmhouse) 140m to the south, three Grade II listed buildings 200m to the north (Moor Hall and surrounding buildings) and a Grade II listed building 150m to the west which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search lies within Source Protection Zone 3. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to West Hagley and Upper Marlbrook, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where two Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access a school to the west in Belbroughton and a school to the north west in Holy Cross. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	This area of search contains two PROWs that could be sensitive to dust, noise and emissions from a potential mineral development. Therefore, a minor negative effect with some uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport	-	This area of search will require road-based movement by HGVs because there are no sustainable

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce the need to travel and move towards more sustainable travel patterns.		means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search does not contain or lie within 1.5km of an AONB. This area of search contains or is adjacent to multiple PROWs, small residential areas and industrial sites. All of which could be visually impacted by a potential mineral development.
impact.	?	The area of search is comprised of Principal Settled Farmland and Enclosed Commons land cover types. The landscape characteristics, to principal settled farmland, that could be affected by mineral extraction are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Enclosed commons key characteristics that could be affected by mineral extraction are thick vegetated hedgerow boundaries to fields. The area of search is characterised by a low topography where views of a potential mineral development could be obtained from afar. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is in close proximity to four SSSIs (Sling Gravel Pits, Feckenham Forest, Hurst Farm Pasture, and Madeley Heath Pit). It is also located within 1.5km of Waseley Hills Country Park Local Nature Reserve, Madeley Heath Geological Site, and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains three Grade II listed buildings (Lower Madley Farmhouse, Castle Bourne and The Old Toll House) and is adjacent to a scheduled monument (Moated site at Fairfield Court. As such, there is potential for minerals development to significantly compromise these historic environment assets. There is potential for inter-visibility between the area of search and multiple Grade II listed buildings 300m to the west which may significantly compromise these historic environment assets. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search is comprised of Grades 2 and 3 agricultural land. In addition, the area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies within Source Protection Zone 3 and contains a number of sensitive receptors. In addition, a minor river passes through the northern corner of the area of search. Therefore, a significant negative effect with uncertainty is likely as it depends on the exact location of the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Upper Marlbrook and Bromsgrove, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little or zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Depending on where minerals are extracted from, people's ability to access health, educational and other key local services in the settlement of Bromsgrove may be significantly compromised by a physical barrier. Whilst the area of search contains a part of the A491, it is assumed that this will not be compromised by any minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	There are PROWs and residential hamlets contained within this area of search. In addition, an overhead electricity line crosses the centre of the parcel. Therefore, a significant negative effect with some uncertainty is likely as it depends on the exact location of mineral extraction in the area of search.
SA10: Waste	-	This area of search contains Sandy Lane landfill site, Sandy Lane biological treatment works, Chadwich Lane Quarry landfill site, and Westside Forestry Ltd waste transfer station. It also lies

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		within 250m of Wildmoor Quarry transfer station. Overall, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	-?	This area of search is located within 250m of an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. As such, minor negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education)	0	Although exposure of geological features through minerals extraction can provide research and

Sustainability Appraisal Objectives	SA Score	Potential effects
Raise the skills levels of qualifications of the workforce.		education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search does not contain or lie within 1.5km of an AONB. This area of search contains multiple PROWs, the residential area of Wildmoor, several industrial sites and the adjacent M5 motorway. All of which could be visually impacted by a potential mineral development.
impact.	?	The area of search is comprised of Principal Settled Farmland and Enclosed Commons land cover types. The landscape characteristics, to principal settled farmland, that could be affected by mineral extraction are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Enclosed commons key characteristics that could be affected by mineral extraction are thick vegetated hedgerow boundaries to fields. The area of search is characterised by a low topography where views of a potential mineral development could be obtained from afar. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is within close proximity to two SSSIs (Madeley Heath Pit and Feckenham Forest). It is also located within 1.5km of Waseley Hills Country Park Local Nature Reserve, Madeley Heath Local Geological Site, and a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient tree coverage and the presence of major road between the area of search and two Grade II listed buildings (Lydiate Ash House and Gate Piers East) 310m east of the site to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,		The area of search is comprised of Grades 2 and 3 agricultural land. In addition, the area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search lies within Source Protection Zone 3 and contains a number of sensitive receptors. In addition, a minor river passes through the centre of the area of search. Therefore, a significant negative effect with uncertainty is likely as it depends on the exact location of the area of search.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Upper Marlbrook and Bromsgrove, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be very little or zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where multiple Public Rights of Way cross the area. Depending on where minerals are extracted from, people's ability to access health, educational and other key local services in the settlement of Bromsgrove may be significantly compromised by a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains several PROWs, residential hamlets and industrial sites, which could be sensitive to dust, noise and emissions from a potential mineral development. Therefore, a significant negative effect with some uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	-	This area of search lies directly adjacent to Chadwich Lane Quarry landfill site and Pitches 3 Quarry landfill and waste transfer station. A minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all		This area of search is not located within 250m of an area allocated for employment development or
Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing		This area of search is located within 250m of an area allocated for the provision of housing, therefore
Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	-?	mineral development could compromise residential amenity, of this development. As such, minor negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all		The locations of strategic corridors and areas of search will not affect the ability of communities to
Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not

Sustainability Appraisal Objectives	SA Score	Potential effects
workforce.		affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search is adjacent to the M5 motorway, where views of the parcel can be obtained and could cause a negative visual impact.
and quality and minimise negative visual impact.	-?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within 1.5km of Waseley Hills Country Park Local Nature Reserve, and
Conserve and enhance Worcestershire's biodiversity and geodiversity.	-	three Local Wildlife Sites (The Roughlands, Broadmoor Wood & Chadwich Manor Ponds, and Beacon Wood & Chadwich Wood). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a minor negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient tree coverage and the presence of the M5 between the area of search and two Grade II listed buildings (Lydiate Ash House and Gate Piers East) 160m to the east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Therefore, negligible effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets		The area of search is comprised of Grade 3 agricultural land. In addition, the area of search lies
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	entirely within the Green Belt. Therefore, a minor negative effect is likely.
SA5: Natural Resources	-	The area of search is situated within Source Protection Zone 3. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
Protect and enhance water and air quality.		
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Upper Marlbrook and Bromsgrove, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services in the settlement of Bromsgrove. This area of search is located adjacent to the M5 but it is assumed that minerals development will not disrupt this major road. Therefore, a no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	There are no sensitive receptors within 100m of the area of search. Therefore, a no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	-	This area of search lies directly adjacent to Pinches 3 Quarry landfill and waste transfer station. Therefore, a minor negative effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.

Sustainability Appraisal Objectives	SA Score	Potential effects
more sustainable travel patterns.		
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce crime, fear of crime and antisocial behaviour.		

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		The area of search is adjacent to residential properties in Catshill and PROW is situated on the eastern boundary of the area of search. In addition, the M5 motorway is adjacent to the northern boundary of the area of search. All of which obtain views of the area of search, that could potentially be impacted by a mineral development.
		The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area. Due, to the scale of this area of search, it is assumed that sensitive receptors will be close enough to a mineral development anywhere in the parcel and therefore could be impacted. As such, a significant negative effect is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	-	This area of search is located within 1.5km of Round Hill Local Wildlife Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a minor negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient tree coverage and urban development between the area of search and a Grade II listed building (Christ Church) 320m to the south to suggest that this historic environment asset will not be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grades 2 and 3 agricultural land. In addition, the area lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and it lies adjacent to a number of sensitive receptors in Catshill. Battlefield Brook passes through the centre of the area of search. Therefore, a significant negative effect with uncertainty is likely as it depends on exactly where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Upper Marlbrook and in close proximity to Bromsgrove, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be some or very little net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools to the south in Catshill. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The area of search is within 100m of the residential area Catshill and a PROW, which could be impacted by noise, dust and emissions from a potential mineral development. Therefore, a significant negative effect is assumed as due to the scale of the parcel, sensitive receptors will be adjacent to mineral development across the whole area of search.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	?	This area of search is located adjacent an area allocated for the provision of housing, therefore mineral development could compromise residential amenity of this development. As such, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

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Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search contains multiple PROWs, Route 5 of the NCN and a number of residential and industrial buildings on Woodrow Lane. In addition, the area of search is adjacent to the residential area of Catshill and the M5 borders the area of search. All of which could be sensitive to negative visual impacts from a potential mineral development.
	?	The area of search is comprised of Principal Settled Farmland and Enclosed Commons land cover types. The landscape characteristics, to principal settled farmland, that could be affected by mineral extraction are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Enclosed commons key characteristics that could be affected by mineral extraction are thick vegetated hedgerow boundaries to fields. The openness and topography of this area could mean that particular views a mineral development could be clearly visible. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	-	This area of search is located within 1.5km of a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a minor negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains one Grade II listed building (Lydiate Ash House) and is adjacent to a Grade II listed building (Gate Piers East). As such, there is potential for minerals development to significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search consists of predominately Grade 2 agricultural land and the eastern area is comprised of Grades 3 and 4. In addition, the entirety of the area of search lies within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated entirely within Source Protection Zone 3 and lies adjacent to a number of sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Lower and Upper Marlbrook and in close proximity to Bromsgrove and Barnt Green, all of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way and a cycle route cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the south west in Catshill. A significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search is within 100m of the residential area of Catshill as well as PROWS, NCN and an outdoor recreational ground. All of these could be impacted by noise, dust and emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely, as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	-	This area of search lies within 250m of Pitches 3 Quarry landfill and waste transfer station. A minor negative effect is therefore likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not

Sustainability Appraisal Objectives	SA Score	Potential effects
workforce.		affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime)		The locations of strategic corridors and areas of search will not affect crime and the fear of crime.
Reduce crime, fear of crime and antisocial behaviour.	0	

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search contains a PROW and Braces Lane outdoor recreation ground. In addition, the area of search is adjacent to the residential area of Catshill. All of which could be sensitive to negative visual impacts from a potential mineral development.
impact.	?	This area of search is comprised of Enclosed Commons land cover type. Enclosed commons have a number of key characteristics that could be affected by mineral extraction, such as, hedgerow boundaries to fields. This area is characterised by a full size outdoor football pitch with associated infrastructure such as changing rooms/club house and open green space in the northern corner of the area of search, bounded with thick hedgerow and trees. The parcel is backed onto by many residential properties which can obtain clear views of the area of search, which could be potentially impacted. As such, there is potential for minerals development to compromise the landscape of the area. Overall, a significant negative effect is likely.
SA2: Biodiversity and geodiversity		This area of search is located within 1.5km of a number of Local Wildlife Sites. As such, there is
Conserve and enhance Worcestershire's biodiversity and geodiversity.	-	potential for minerals development to compromise the biodiversity of the area. Overall, a minor negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. Therefore, a no effect is likely for this objective.
SA4: Material assets		The area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and contains or lies adjacent to a number of sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Lower and Upper Marlbrook and in close proximity to Bromsgrove and Barnt Green, all of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access schools to the south west in Catshill. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		The area of search contains Braces Lane recreational ground and a PROW. In addition, Catshill residential area is within 100m of the area of search. The above could be impacted by noise, dust and emissions from a potential mineral development. Because of the scale of the area of search, a significant negative effect is likely, as sensitive receptors will be within 100m of any potential mineral development.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		This area of search contains several PROWs that cross the parcel, North Bromsgrove Cemetery and an industrial site. In addition, the area of search is adjacent to the residential area of Catshill. All of which could be sensitive to negative visual impacts from a potential mineral development.
impact.	?	This area of search is comprised of Principal Settled Farmland land cover type. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. The openness of the area of search will play a weak role in minimising any potential negative visual impacts. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It is also located within 1.5km of four Local Wildlife Sites (Burcot Lane Meadow, Shepley Marsh, Round Hill and Spadesbourne). As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient urban development between the area of search and Grade II listed buildings (Christ Church and Catshill and North Marlbrook war memorial) 620m to the north west to suggest that these historic environment sites will not be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		The area of search consists of Grade 3 agricultural land. In addition, the area lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated entirely within Source Protection Zone 3 and contains or lies adjacent to a number of sensitive receptors. In addition, the south eastern corner of area of search is adjacent to the M42 and contains a small segment of the Lickey End/Bromsgrove AQMA. A mineral development could increase traffic into the AQMA. Therefore, a significant negative effect with uncertainty is likely, as it depends where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Upper Marlbrook and in close proximity to Bromsgrove, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the north west in Catshill. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains North Bromsgrove cemetery, an industrial site and several PROWs. In addition, Catshill residential area is within 100m of the area of search. All of these could be sensitive to noise, dust and emissions from a potential mineral development. Therefore, a significant negative effect with some uncertainty is likely, as the effects depend where mineral extraction occurs.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not

Sustainability Appraisal Objectives	SA Score	Potential effects
workforce.		affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search does not contain or lie within 1.5km of an AONB. The area contains a community allotment and is adjacent to the residential area of Marlbrook. The southern boundary of the area of search is parallel to the M42 motorway, where views of the parcel are obstructed by thick vegetation. All of which could be sensitive to negative visual impacts from a potential mineral development.
impuet.	?	The area of search is comprised of Principal Settled Farmland and Enclosed Commons land cover types. The landscape characteristics, to principal settled farmland, that could be affected by mineral extraction are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Enclosed commons key characteristics that could be affected by mineral extraction are thick vegetated hedgerow boundaries to fields, which could restrict views of mineral development. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It contains Round Hill Local Wildlife Site and is located adjacent to Shepley Marsh Local Wildlife Site. It is also located within 1.5km of a number of Local Wildlife Sites and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient residential development and the presence of the M42 between the area of search and three Grade II listed buildings 800m to the south to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search consists of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated entirely within Source Protection Zone 3 and a minor river is situated in the south eastern corner of the parcel. There are also a number of adjacent sensitive receptors. In addition, the area of search is adjacent to the M42 and the Lickey End/Bromsgrove AQMA. A mineral development could increase traffic into the AQMA. Therefore, a significant negative effect with uncertainty is likely, as it depends where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Upper Marlbrook and in close proximity to Bromsgrove and Barnt Green, all of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be some or very little net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is located adjacent to part of a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools to the west in Catshill or other key local services to the south west in Bromsgrove. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The area of search contains a community allotment and is within 100m of Marlbrook residential area, which could both be impacted by noise, dust and emissions from a potential mineral development. Therefore, a significant negative effect with some uncertainty is likely, as it depends where mineral extraction occurs within the area.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education)	0	Although exposure of geological features through minerals extraction can provide research and

Sustainability Appraisal Objectives	SA Score	Potential effects
Raise the skills levels of qualifications of the workforce.		education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search does not contain or lie within 1.5km of an AONB. This area of search contains one PROW that crosses the parcel and the M42 motorway is adjacent to the southern boundary of the area of search, where views of the area of search can be obtained. All of which could be sensitive to negative visual impacts from a potential mineral development.
	-?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. The openness of the area of search will play a weak role in minimising any potential negative visual impacts. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.	-	This area of search is located within 1.5km of a number of Local Wildlife Sites and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a minor negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient urban development between the area of search and Grade II listed buildings (Christ Church and Catshill and North Marlbrook war memorial) 700m to the north west to suggest that these historic environment assets will not be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grade 3 agricultural land. In addition, the area lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated entirely within Source Protection Zone 3 and contains a PROW. In addition, the area of search is adjacent to the M42 and the Lickey End/Bromsgrove AQMA. A mineral development could increase traffic into the AQMA. Therefore, a significant negative effect with uncertainty is likely, as it depends where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Upper Marlbrook, Lickey End and Bromsgrove, all of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search contains part of a Public Right of Way and is also adjacent to one. Minerals development could lead to severance of these which may compromise the ability of people to access schools to the north west in Catshill or other key local services to the south in Bromsgrove. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The PROW is a sensitive receptor contained within the area of search, which could be impacted by dust, noise and emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely, as it depends on the exact position of mineral extraction within the parcel.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search does not contain or lie within 1.5km of an AONB. The area contains Barnsley Hall outdoor playing fields and a PROW which crosses the area of search. In addition, the residential area of Bromsgrove is adjacent to the southern boundary of the area of search. All of which could be sensitive to negative visual impacts from a potential mineral development. The northern boundary of the area of search is parallel to the M42 motorway, where views of the parcel are obstructed by a thick vegetated verge which separates the two.
	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It contains Battlefield Brook Local Wildlife Site and is located within 1.5km of a number of Local Wildlife Sites and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient urban development between the area of search and a Grade II listed building 800m to the south and 700m to the south east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search consists of Grades 2 and 3 agricultural land. In addition, the area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated entirely within Source Protection Zone 3 and a minor river passes through the area of search. There is also a number of sensitive receptors adjacent to the area situated in Bromsgrove. In addition, the area of search is adjacent to the M42 and the Lickey End/Bromsgrove AQMA. A mineral development could increase traffic into the AQMA. Therefore, a significant negative effect with uncertainty is likely, as it depends where mineral extraction occurs in the area.
SA6: Climate Change and energy		The area is adjacent to Lickey End and in close proximity to Bromsgrove and Upper Marlbrook, all of
Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be some or very little net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding		Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely
Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	for this objective.
SA8: Access to Services		This area of search is located where a Public Right of Way and a cycle route cross the area. Minerals
Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	development could lead to severance of these which may compromise the ability of people to access schools to the north east in Catshill or other key local services to the south in Bromsgrove. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity		The PROW is contained within the area of search and residential properties in Bromsgrove are within
Improve the health and well-being of the population and reduce inequalities in health.	?	100m of the parcel's southern boundary. Therefore, a significant negative effect with uncertainty is likely, as it depends on the exact position of mineral extraction within the area.
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education)	0	Although exposure of geological features through minerals extraction can provide research and

Sustainability Appraisal Objectives	SA Score	Potential effects
Raise the skills levels of qualifications of the workforce.		education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search does not contain or lie adjacent to an AONB. This area of search contains a PROW and is adjacent to residential properties on Birmingham Road along the south eastern boundary of the area of search.
impact.	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. The northern boundary of the area of search is parallel to the M42 motorway, where views of the parcel are obstructed by a thick vegetated verge which separates the two. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It is located within 1.5km of a number of Local Wildlife Sites and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient tree coverage and urban development between the area of search and Grade II listed buildings (Crows Mill, Crows Mill House and barn) 710m to the south to suggest that these historic environment assets will not be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search is comprised of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated entirely within Source Protection Zone 3. In addition, the area of search is adjacent to the M42 and the Lickey End/Bromsgrove AQMA. A mineral development could increase traffic into the AQMA. Therefore, a significant negative effect with uncertainty is likely, as it depends where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Lickey End and in close proximity to Upper Marlbrook and Bromsgrove, all of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access a school to the South East in Lickey End. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The PROW is contained within the area of search and residential properties on Birmingham Road are within 100m of the parcel's southern boundary. Therefore, a significant negative effect with uncertainty is likely, as it depends on the exact position of mineral extraction within the parcel.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search contains Lickey End outdoor recreational ground and multiple PROWs which cross the area of search. In addition, residential properties on Birmingham Road are adjacent to the south eastern boundary of the area of search. All of which could be sensitive to negative visual impacts from a potential mineral development.
	?	This area of search is comprised of Principal Settled Farmlands and Settled Farmland with Pastoral Land Use land cover types. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. Settled farmlands with pastoral land use also have key characteristics that could be affected by mineral extraction, such as, pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. The northern boundary of the area of search is parallel to the M42 motorway, where views of the parcel are obstructed by a thick vegetated verge which separates the two. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It partially contains two Local Wildlife Sites (Burcot Lane Meadow and Spadesbourne Brook) and is located within 1.5km of a number of other Local Wildlife Sites and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient tree coverage between the area of search and Grade II listed buildings 600m to the east to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. However, there is potential for Grade II listed buildings (Rowan Cottage and Hillside, Burcot Farmhouse, Burcot House and No. 352, Alcester Road) 440m to the south and 400m to the west (Crows Mill House and surrounding buildings) of the area of the search to be significantly compromised by inter-visibility with minerals development. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets	-	The area of search consists of Grades 2 and 3 agricultural land. In addition, the entirety of the area of

Sustainability Appraisal Objectives	SA Score	Potential effects
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		search lies within the Green Belt. Therefore, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated entirely within Source Protection Zone 3 and a minor river passes through the area of search. There are also a number of sensitive receptors contained within or adjacent to the area of search. In addition, the area of search is adjacent to the M42 and the Lickey End/Bromsgrove AQMA. A mineral development could increase traffic into the AQMA. Therefore, a significant negative effect with uncertainty is likely, as it depends where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Lickey End and in close proximity to Bromsgrove and Upper Marlbrook, all of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will be some or very little net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Depending on where minerals are extracted from, the ability of people to access health, educational or other key local services in the settlement of Bromsgrove may be significantly compromised by a physical barrier. Whilst the area of search contains part of the B4096 road, it is assumed that this would not be compromised by any minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral

Sustainability Appraisal Objectives	SA Score	Potential effects
		development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	Lickey End outdoor recreational ground and the multiples PROWs are contained within the area of search. In addition, the residential area of Lickey End is within 100m of the parcel's north eastern boundary. Therefore, a significant negative effect with uncertainty is likely, as the impact on sensitive receptors depends on the exact position of mineral extraction within the parcel.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development

Sustainability Appraisal Objectives	SA Score	Potential effects
SA15: Technology, innovation and inward investment		The locations of strategic corridors and areas of search will not affect new technologies and innovation.
Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	0?	This area of search is not within 1.5km of an AONB nor does it contain or lie adjacent to any sensitive receptors. Settled farmlands with pastoral land use also have key characteristics that could be affected by mineral extraction, such as, pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, it will likely have a negligible impact with uncertainty.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It is located within 1.5km of a number of Local Wildlife Sites and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	0?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is sufficient tree coverage and residential development between the area of search and Grade II listed buildings 550m to the south west and 570m east of the site to suggest that these historic environment assets are unlikely to be significantly compromised by inter-visibility with minerals development. Therefore, a negligible effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	-	The area of search is situated within Source Protection Zone 3. Therefore, a minor negative effect is likely.
SA6: Climate Change and energy	-	The area is in close proximity to Lickey End and Blackwell, both of which could be potential markets.

Sustainability Appraisal Objectives	SA Score	Potential effects
Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services in the settlement of Bromsgrove. Therefore, a no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	0	The area of search is not located within 100m of any sensitive receptors. Therefore, a no effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure and skills base whilst ensuring all share the benefits, urban and rural.		employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search is does not contain or lie within 1.5km of an AONB. This area of search contains the B4096 which passes through the centre of the area of search where residential and industrial buildings are situated along it. All of which have clear views into the area of search and could be sensitive to a negative visual impact.
	?	The area is within the principal settled farmlands land cover parcel. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It partially contains Burcot Lane Meadow Local Wildlife Site and is located within 1.5km of a number of other Local Wildlife Sites and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. However, there is potential for a Grade II listed building (Rowan Cottage) 200m to the east to be significantly compromised by intervisibility with minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grade 3 agricultural land. In addition, the area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.		The area of search is situated within Source Protection Zone 3 and contains several sensitive receptors along the B4096. Therefore, a significant negative effect is likely.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Lickey End, Bromsgrove and Blackwell, all of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	-?	This area of search is adjacent to a Public Right of Way. Minerals development could lead to diversion of this which may compromise the ability of people to access schools to the north west in Lickey End and north east in Blackwell or other key local services to the south west in Bromsgrove. Therefore, a minor negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.		Residential and commercial properties on the B4096 are located within the area of search, which could be impacted by mineral development within the area. Due to the scale of the area of search it is assumed that sensitive receptors will be within 100m of mineral development anywhere in the parcel. Therefore, a significant negative effect is likely.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search contains Greenhill and the residential and industrial buildings on it. Greenhill is tree lined which could minimise the visual impact of a potential mineral development. In addition, the area of search is adjacent to the residential area of Blackwell. All of which have clear views into the area of search and could be impacted by negative visual impact.
	?	The area of search is comprised of Settled Farmlands with Pastoral Land Use land cover type. Key landscape characteristics that could be affected by mineral extraction are pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, it will likely have a significant negative effect with uncertainty.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It is located within 1.5km of two Local Wildlife Sites (Shepley Marsh and Linthurst Wood) and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to two Grade II listed buildings (Trinity Methodist Memorial Church and Church of St Catherine). As such, there is potential for minerals development to compromise these historic environment assets. There is likely to be sufficient tree coverage and residential development between the area of search and Grade II listed buildings 530m to the west to suggest that these historic environment assets are unlikely to be significantly compromised by intervisibility with minerals development. However, there is potential for inter-visibility between the area of search and a Grade II listed building (Blackell Road Railway) 180m to the south west. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green	-	The area of search consists of Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and is adjacent to a number of sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.		The area is adjacent to Blackwell and in close proximity to Bromsgrove and Lickey End, all of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will likely be very little or zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services in the settlement of Bromsgrove. Therefore, a no effect is likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	Residential properties and Burcot Grange Residential Care Home are located within the area of search. In addition, the residential area of Blackwell is within 100m of the area of search, which could be impacted by noise, dust and emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as it depends on where mineral extraction occurs in the area.
SA10: Waste Manage waste in accordance with the waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs to transport minerals. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on

Sustainability Appraisal Objectives	SA Score	Potential effects
workforce.		the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		This area of search contains a PROW, which crosses through the centre of the parcel. The PROW has a clear view within the parcel which could be sensitive to a negative visual impact.
and quality and minimise negative visual impact.	-?	The area of search is comprised of Settled Farmlands with Pastoral Land Use and Principal Settled Farmlands land cover types. The area of search is characterised as a thick vegetated verge adjacent to the railway line. Settled farmlands with pastoral land use also have key characteristics that could be affected by mineral extraction, such as, pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It is located within 1.5km of Burcot Lane Meadow Local Wildlife Site and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to a Grade II listed building (Blackwell Road Railway Under Bridge). As such, there is potential for minerals development to compromise this historic environment asset. There is likely to be sufficient tree coverage and residential development between the area of search and four Grade II listed buildings 500m to the west to suggest that these historic environment assets will not be significantly compromised by inter-visibility with minerals development. Overall, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grades 2 and 3 agricultural land. In addition, the area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-?	The area of search is situated within Source Protection Zone 3 and contains a PROW. Therefore, a minor negative effect with uncertainty is likely, as the effects depend where mineral extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Blackwell, Bromsgrove and Lickey End, all of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will be some or very little net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development may lead to severance of this which may compromise the ability of people to access a school in Blackwell to the north east or other key local services to the south west in Bromsgrove. Therefore, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The PROW is a sensitive receptor contained within the area of search, which could be sensitive to dust, noise and emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely, as it depends on the exact position of mineral extraction within the parcel.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs to transport minerals. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

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Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.	-?	This area of search contains a PROW, which crosses through the centre of the parcel. The PROW has a clear view within the parcel which could be sensitive to a negative visual impact. The area of search is comprised of Settled Farmlands with Pastoral Land Use and Principal Settled Farmlands land cover types. The area of search is characterised as a thick vegetated/wooded verge adjacent to the railway line. Settled farmlands with pastoral land use also have key characteristics that could be affected by mineral extraction, such as, pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It is located within 1.5km of Burcot Lane Meadow Local Wildlife Site and Shepley Sandpit and Knoll Local Geological Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search is located adjacent to a Grade II listed building (Blackwell Road Railway Under Bridge). As such, there is potential for minerals development to compromise this historic environment asset. There is likely to be sufficient tree coverage and residential development between the area of search and four Grade II listed buildings 530m to the north west and one 500m to the south to suggest that these historic environment assets are unlikely to be significantly compromised by intervisibility with minerals development. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green		The area of search consists of Grades 2 and 3 agricultural land. In addition, the area of search lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	-?	The area of search is situated within Source Protection Zone 3 and it contains a PROW. Therefore, a minor negative effect with uncertainty is likely, as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove, Blackwell and Lickey End, all of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will likely be very little or zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This are of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access a school to the north east in Blackwell or other key local services to the south west in Bromsgrove. Therefore, significant negative effects with uncertainty are likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	The PROW is a sensitive receptor contained within the area of search, which could be impacted by noise, dust and other emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely, as it depends on the exact position of mineral extraction within the parcel.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
and composting, 4) recovery, 5) disposal.		
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs to transport minerals. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not

Sustainability Appraisal Objectives	SA Score	Potential effects
workforce.		affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

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Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual impact.		This area of search contains a PROW, which crosses through the centre of the parcel. In addition, Pikes Pool outdoor activity centre is situated within the north western corner of the area of search. Both if which have a clear view of the area of search which could be sensitive to a negative visual impact.
	?	The area of search is comprised of Settled Farmlands with Pastoral Land Use and Principal Settled Farmlands land cover types. The area of search is characterised as pastoral fields with thick tall hedgerow boundaries. The closed landscape character of the area of search could play a role in minimising negative impact visual impact. Settled farmlands with pastoral land use also have key characteristics that could be affected by mineral extraction, such as, pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Burcot Lane Cutting SSSI. It is located within 1.5km of Burcot Lane Meadow Local Wildlife Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. There is likely to be sufficient tree coverage and residential development between the area of search and four Grade II listed buildings 550m to the north west to suggest that these historic environmental assets will not be significantly compromised by inter-visibility with minerals development. However, there is potential for inter-visibility between the area of search and a Grade II listed building (Hollow Tree Farmhouse) 350m to the south east and another Grade II listed building 100m to the north (Blackwell Road Railway) which may significantly compromise these historic environment assets. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets	-	The area of search consists of predominantly Grade 2 agricultural land and lies entirely within the

Sustainability Appraisal Objectives	SA Score	Potential effects
Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.		Green Belt. Therefore, a minor negative effect is likely.
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within Source Protection Zone 3 and contains a number of sensitive receptors. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove, Blackwell and Lickey End, all of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely that heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will likely be very little or zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a Public Right of Way crosses the area. Minerals development could lead to severance of this which may compromise the ability of people to access key local services to the south west in Bromsgrove. Therefore, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the	?	The PROW and outdoor activity centre are sensitive receptors situated within the area of search, which could be impacted by noise, dust and emissions from a potential mineral development. As such a significant negative effect with uncertainty is likely as the effects depend on where mineral

Sustainability Appraisal Objectives	SA Score	Potential effects
population and reduce inequalities in health.		extraction occurs in the area.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs to transport minerals. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.

Sustainability Appraisal Objectives	SA Score	Potential effects
environmental technology initiatives.		
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

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Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character		The area of search contains Robin Hill Farm, which is likely to be sensitive to any landscape modifications from a mineral development.
and quality and minimise negative visual impact.	?	The area of search lies within a Principal Settled Farmlands land cover type and is characterised as several fields for agricultural purposes with a hilly topography. The rolling hills could play a role in minimising negative visual impact as potential developments could be hidden. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a minor negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity		This area of search is located within close proximity to Worcester & Birmingham Canal Local Wildlife
Conserve and enhance Worcestershire's biodiversity and geodiversity.		Site. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search does not contain or is adjacent to any national historic environment sites, conservation areas or locally important historic parks and gardens. However, there is potential for inter-visibility between the area of search and Grade II listed buildings 100m to the north west (Hollow Tree Farmhouse), 370m to the south west (Forge Cottage) and 380m to the south (Lower House Farm Barn) to significantly compromise these historic environment assets. In addition, national Grade II* listed Hewell Grange is within 1.5 km of the area of search. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings, whilst safeguarding open space/green infrastructure.	-	The area of search consists of Grade 2 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA5: Natural Resources Protect and enhance water and air quality.	-?	The area of search is situated within Source Protection Zone 3 and contains a less sensitive receptor of the commercial farm buildings. Therefore, a minor negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the parcel.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is in close proximity to Bromsgrove and Blackwell, both of which could be potential markets. There is not a water link located within or adjacent to this area of search, as such, it is likely to require the use of heavy fossil-fuelled vehicle haulage. There will likely be very little to zero net loss of tree cover due to mineral extraction. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	0	This area of search does not contain any Public Rights of Way and is unlikely to significantly compromise the ability of people to access health, educational or other key local services in the settlement of Bromsgrove. Therefore, no effects are likely for this objective.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	-?	Robin Hill Farm is a less sensitive receptor that is contained within the area of search, which could be sensitive to dust, noise and emission from a potential mineral development. Therefore, a minor negative effect with uncertainty is likely as the effects depend where of mineral development occurs in the area of search.
SA10: Waste Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will require road-based movement by HGVs because there are no sustainable means of transport within or adjacent to the area. Overall, it will likely have a minor negative effect on traffic and transport.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education) Raise the skills levels of qualifications of the workforce.	0	Although exposure of geological features through minerals extraction can provide research and education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are

Sustainability Appraisal Objectives	SA Score	Potential effects
		assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

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Sustainability Appraisal Objectives	SA Score	Potential effects
SA1: Landscape Safeguard and strengthen landscape character and quality and minimise negative visual		The area of search contains Blackwell Golf Club, Blackwell outdoor adventure park and multiple PROWs. In addition, the area of search is adjacent to the residential area of Blackwell. All of which could be sensitive to a negative visual impact from a potential mineral development.
impact.	?	The area of search is comprised of Settled Farmlands with Pastoral Land Use and Principal Settled Farmlands land cover types. The hilly landscape character of this area of search could play a role in minimising negative impact visual impact. Settled farmlands with pastoral land use also have key characteristics that could be affected by mineral extraction, such as, pastoral land use and small-scale landscape defined by prominent pattern of hedged fields. The landscape characteristics that could be affected by mineral extraction, are, hedgerow boundaries to fields, and moderate to high density settlement pattern of farmsteads and rural dwellings dispersed throughout the area. As such, there is potential for minerals development to compromise the landscape of the area; however it depends on where development occurs within the area of search. Overall, a significant negative effect with uncertainty is likely.
SA2: Biodiversity and geodiversity Conserve and enhance Worcestershire's biodiversity and geodiversity.		This area of search is located within close proximity to Hewell Park Lake SSSI. It is also located within 1.5km of a number of Local Wildlife Sites. As such, there is potential for minerals development to compromise the biodiversity of the area. Overall, a significant negative effect is likely.
SA3: Cultural heritage, architecture and archaeology Preserve and enhance the historic environment and deliver well-designed and resource-efficient development which respects local character and distinctiveness.	?	This area of search contains a Grade II listed building (Stoney Lane Farmhouse). As such, there is potential for minerals development to compromise this historic environment asset. There is potential for inter-visibility between the area of search and Grade II listed buildings 60m to the west and 72m to the south and a Grade II* and two Grade II listed buildings and a Grade II* 100m to the east to significantly compromise these historic environment assets. In addition, national Grade II* listed Hewell Grange is within 1.5 km of the area of search. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA4: Material assets Ensure efficient use of land through safeguarding of mineral reserves, the best and most versatile agricultural lands, land of green belt value, maximising use of previously-developed land and reuse of vacant buildings,	-	The area of search consists of predominantly Grade 3 agricultural land and lies entirely within the Green Belt. Therefore, a minor negative effect is likely.

Sustainability Appraisal Objectives	SA Score	Potential effects
whilst safeguarding open space/green infrastructure.		
SA5: Natural Resources Protect and enhance water and air quality.	?	The area of search is situated within zone 3 of a Source Protection Zone and contains or lies adjacent to a number sensitive receptors in the settlement of Blackwell. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs.
SA6: Climate Change and energy Reduce causes of and adapt to the impacts of climate change. Promote energy efficiency and energy generated from renewable energy and low-carbon sources.	-	The area is adjacent to Blackwell and in close proximity to Bromsgrove and Barnt Green, all of which could be potential markets. There is a railway line in close proximity to the area of search but it is unlikely that the necessary infrastructure to transport minerals via this route could be supported. Therefore, it is likely heavy fossil-fuelled vehicle haulage will be necessary to transport minerals. There will likely be very little or zero net loss of tree cover. Overall, a minor negative effect is likely on climate change and energy.
SA7: Flooding Ensure inappropriate development does not occur in high-risk flood-prone areas and does not adversely contribute to fluvial flood risks or contribute to surface water flooding in all other areas.	0	Silica sand extraction is considered compatible in any flood zone, therefore a negligible effect is likely for this objective.
SA8: Access to Services Improve the quality of, and equitable access to, local services and facilities, regardless of age, gender, ethnicity, disability, socioeconomic status or educational attainment.	?	This area of search is located where a number of Public Rights of Way cross the area. Depending on where minerals are extracted from, the ability of people to access health, educational or other key local services in the settlement of Bromsgrove may be significantly compromised by a physical barrier. Overall, a significant negative effect with uncertainty is likely for this objective, as effects depend on the exact scale and location of a mineral development.
SA9: Health and amenity Improve the health and well-being of the population and reduce inequalities in health.	?	Blackwell Golf Club, Blackwell outdoor adventure centre and multiple PROWs are located within the area of search. In addition, Birmingham Clinic and the residential area of Blackwell are within 100m of the area of search. All of these could be impacted by noise, dust and emissions from a potential mineral development. Therefore, a significant negative effect with uncertainty is likely as the effects depend where mineral extraction occurs in the area.7
SA10: Waste	0	This area of search is not located within 250m of existing waste infrastructure. Therefore, no effect is

Sustainability Appraisal Objectives	SA Score	Potential effects
Manage waste in accordance with the waste hierarchy: 1) reduce, 2) reuse, 3) recycling and composting, 4) recovery, 5) disposal.		likely.
SA11: Traffic and transport Reduce the need to travel and move towards more sustainable travel patterns.	-	This area of search will likely require road-based movement by HGVs to transport minerals. Overall, a minor negative effect is likely.
SA12: Growth with prosperity for all Develop a knowledge-driven economy, the infrastructure and skills base whilst ensuring all share the benefits, urban and rural.	+	This area of search is not located within 250m of an area allocated for employment development or proposed infrastructure delivery and any new minerals extraction in the area will likely provide new employment opportunities. Overall, a minor positive effect is likely for this objective.
SA13: Provision of housing Provide decent affordable housing for all, of the right quality and tenure and for local needs, in clean, safe and pleasant local environments.	0	This area of search is not located with 250m of an area allocated for housing provision. Therefore, no effects are likely for this objective.
SA14: Participation by all Provide opportunities for communities to participate in and contribute to decisions that affect their neighbourhood and quality of life, encouraging pride and social responsibility in the local community.	0	The locations of strategic corridors and areas of search will not affect the ability of communities to participate in decisions regarding minerals development
SA15: Technology, innovation and inward investment Promote and support the development of new technologies, of high value and low impact, especially resource efficient technologies and environmental technology initiatives.	0	The locations of strategic corridors and areas of search will not affect new technologies and innovation.
SA16: Population (skills and education)	0	Although exposure of geological features through minerals extraction can provide research and

Sustainability Appraisal Objectives	SA Score	Potential effects
Raise the skills levels of qualifications of the workforce.		education opportunities, the potential to provide such educational opportunities is not dependent on the location of mineral workings. The locations of strategic corridors and areas of search will not affect skills and education. Effects on facilities such as schools via noise and visual disturbance are assessed via other objectives.
SA17: Population (crime & fear of crime) Reduce crime, fear of crime and antisocial behaviour.	0	The locations of strategic corridors and areas of search will not affect crime and the fear of crime.

Appendix 12 Summary findings from previous stages of Sustainability Appraisal

Please note that the colour coding used for mixed effects (i.e. +/-, -/+) was different in the 2013 and 2016 SA Reports, compared to this current SA Report, which colours all mixed positive and negative effects yellow.

Summary of SA findings presented in the Initial SA Report (November 2013)

Table A12.1: Summary of SA findings for alternatives in the Second Stage Consultation MLP that were assessed in the Initial SA Report

(November 2013)

SA Objectives	Vision Objectives		Provision of Aggregate s (Option A)	Provision of Aggregate s (Option B)	Provision of Aggregate s (Option C)	How Will Minerals be Worked?	Issues to be Addressed by the Site- Specific Location	Alterna to Driving the Rest for Eac and the	Cross- cutting Site- specific Restorati on		
							Policies	A	В	С	Policies
1 Landscape	+	+	-/?	+/?	+/?	+	+	+	++	++/?	+
2 Biodiversity and geodiversity	++	+	-/?	+/?	+/?	+/?	+	+	+/-	+/-	+
3 Cultural heritage, architecture and archaeology	++	+	-/?	+/?	+/?	+	+	+	+/-	+/-	+
4 Material assets	++	-	-/?	+/?	+/?	+	+	+	++	++	+
5 Natural resources	+/?	+	-/?	+/?	+/?	+	+	+	+/-	+/-	+
6 Climate change and energy	0/?	++/+	-/?	+?/?	+?/?	+	+/0	+/0	+/0	+/0	+
7 Flooding	0	0/+	-/?	+	+	+	+	+	++	++	+
8 Access to services	0	0	0	0	0	0	+/0	+/0	+/0	+/0	+
9 Health and amenity	+	0	0	0	+	+/0	+/0	0	0	0	+
10 Waste	++	0	-/0	+/0	+/0	+	0	0	0	0	+

SA Objectives	Vision	Objectives	Provision of Aggregate s (Option A)	Provision of Aggregate s (Option B)	Provision of Aggregate s (Option C)	How Will Minerals be Worked?	Issues to be Addressed by the Site- Specific	Alterna to Drivion the Rest for Eac and the	Site- specific		
							Location Policies	A	В	С	Policies
11 Traffic and transport	?	?	-/?	+/?	+/?	+	+	0	0	0	+
12 Growth with prosperity for all	+	+	+	0	-/?	0	+/0	+	+	+	0
13 Provision of housing	+	+	+	-	-/?	0	+/0	0	0	0	0
14 Participation by all	+	++	0	0	0	+/?	0	0	0	0	+
15 Technology, innovation and inward investment	+	+	0	0	0	+	+/0	0	0	0	0
16 Population (skills and education)	0	0	0	0	0	0	0	0	0	0	0
17 Population (crime & fear of crime)	0	0	0	0	0	0	0	0	0	0	0

Summary of SA findings presented in the SA Environmental Report (December 2016)

Table A12.2: Summary of SA findings for Vision, Objectives and MLP policies

SA Objective		Objectives	Policy MLP 1	Reasonable alternative to policy MLP 1: a larger number of smaller corridors		Policy MLP 2	Policy MLP 3	Policy MLP 4	Policy MLP 5	Policy MLP 6
1 Landscape	++	++	+	+/-	+	+/-	+/-	+/?	+/-	+/-
2 Biodiversity and geodiversity	++	++	+	+/-	+/++	+/?	+/-	+/?	+/?	+/?
3 Cultural heritage, architecture and archaeology	++	++	0	+	+	0	-/?	0	-/?	0
4 Material assets	++	++	0	0	0	+/?	+/-	-/+	-/+	-/+
5 Natural resources	+	+	-/+	+/?	-/+	+/?	+/-		-/+	-/?
6 Climate change and energy	++	++	+/?	?/-	?/+	+/?	+/?	+/?	+/?	+/?
7 Flooding	0	0	0	0/-	0	+/?	+/?	?	+/?	?
8 Access to services	0	++	0	0/-	0	+/-	+/-	+/-	+/-	+/-
9 Health and amenity	0	++	0	0	0	0	0	0	0	0
10 Waste	+	+	0	0	0	0	0	0	0	0
11 Traffic and transport	-	?	?	?/+	?/+	?	?	?	?	?
12 Growth with prosperity for all	+	++	-/+	+/-	+/-	+	++	+	+	+

SA Objective	Vision	Objectives	Policy MLP 1	Reasonable alternative to policy MLP 1: a larger number of smaller corridors	Reasonable alternative to policy MLP 1: corridors based on Environmental Character Areas	Policy MLP 2	Policy MLP 3	Policy MLP 4	Policy MLP 5	Policy MLP 6
13 Provision of housing	+	++	-/+	+/-	+/-	+	++	+	+	+
14 Participation by all	+	++	0	0	0	0	0	0	0	0
15 Technology, innovation and inward investment	0	0	0	0	0	0	0/+	0	0	0
16 Population (skills and education)	0	0	0	0	0	0	0	0	0	0
17 Population (crime & fear of crime)	0	0	0	0	0	0	0	0	0	0

Table A12.3: Summary of SA findings for the Strategic Corridors

								S	A Objed	ctives							
Strategic corridor	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14	SA15	SA16	SA17
Avon and Carrant Brook	+/-	+/?	0	+/?	+/?	+/?	+/?	+/-	0	0	?	+	+	0	0	0	0
Lower Severn	+/-	+/-	-/?	+/-	+/-	+/?	+/?	+/-	0	0	?	+	+	0	0/+	0	0
North East Worcestershire	+/?	+/?	0	-/+		+/?	?	+/-	0	0	?	+	+	0	0	0	0
North West Worcestershire	+/-	+/?	-/?	-/+	-/+	+/?	+/?	+/-	0	0	?	+	+	0	0	0	0
Salwarpe Tributaries	+/-	+/?	0	-/+	-/?	+/?	?	+/-	0	0	?	+	+	0	0	0	0

Table A12.4: Summary of SA findings for Supply Policies

SA Objective	Policy MLP 7	Policy MLP 8	Policy MLP 9	Policy MLP 10	Policy MLP 11	Policy MLP 12	Policy MLP 13	Policy MLP 14
1 Landscape	?/+	0	+/?	0	0	0	?	+
2 Biodiversity and geodiversity	?/+	0	0	0	0	0	?	+
3 Cultural heritage, architecture and archaeology	++	+/?	-/?	+	0	+	?	+
4 Material assets	+/-	+	0	+	+	+	?	+
5 Natural resources	?	0	?	0	0	0	?	+
6 Climate change and energy	+	+	+/-	+	+	+	?	++
7 Flooding	?	0	0	0	0	0	?	+
8 Access to services	0	0	0	0	0	0	?	0
9 Health and amenity	?	0	0	0	0	0	?	+
10 Waste	++	?	?	?	?	?	?	0
11 Traffic and transport	?	+/?	-	+/?	+/?	+/?	+	0
12 Growth with prosperity for all	?	+	-/?	+	+	0	+	-/?
13 Provision of housing	+	+	-/?	+	?	+	?	0
14 Participation by all	0	0	0	0	0	0	0	0
15 Technology, innovation and inward	0	?	?	?	?	?	0	+

SA Objective	Policy MLP 7	Policy MLP 8	Policy MLP 9	Policy MLP 10	Policy MLP 11	Policy MLP 12	Policy MLP 13	Policy MLP 14
investment								
16 Population (skills and education)	0	0	0	0	0	0	0	0
17 Population (crime & fear of crime)	0	0	0	0	0	0	0	0

Table A12.5: Summary of SA findings for DM policies

SA Objective	Policy MLP 15	Policy MLP 16	Policy MLP 17	Policy MLP 18	Policy MLP 19	Policy MLP 20	Policy MLP 21	Policy MLP 22	Policy MLP 23	Policy MLP 24	Policy MLP 25	Policy MLP 26
1 Landscape	+	+	?	+	++	?	+	+	+	+	+	0
2 Biodiversity and geodiversity	+	+	?	++	+	?	+	+	+	+	+	0
3 Cultural heritage, architecture and archaeology	+	+	?	+	++	?	+	+	++	+	+	0
4 Material assets	+/-	0	+	+	+	+	+	+	+	+	+	0
5 Natural resources	+	+	0	+	0	?	0	+	0	+	+	0
6 Climate change and energy	++	0	0	+	?	+	0	+	?	+/?	+	0
7 Flooding	++	0	0	+	0	?	0	++	0	?	0	0
8 Access to services	0	0	++	+	0	0	0	+/?	0	0	0	0
9 Health and amenity	+	+	++	+	0	?	0	+/?	0	0	?	0
10 Waste	++	+	0	0	0	?	0	0/?	0	0	0	0
11 Traffic and transport	0	+	++	+	0	?	0	0	0	+	++	0
12 Growth with prosperity for all	0	0	0	0	0	0	0	0	0	0	0	0
13 Provision of housing	+/?	+	+	+	+	?	0	0	+	+/-	+	0
14 Participation by all	0	0	0	0	0	0	0	0	0	0	0	0
15 Technology, innovation and	0	0	0	0	0	0	0	0	0	0	0	0

SA Objective	Policy MLP 15	Policy MLP 16	Policy MLP 17	Policy MLP 18	Policy MLP 19	Policy MLP 20	Policy MLP 21	Policy MLP 22	Policy MLP 23	Policy MLP 24	Policy MLP 25	Policy MLP 26
inward investment												
16 Population (skills and education)	0	0	0	0	0	0	0	0	0	0	0	0
17 Population (crime & fear of crime)	0	0	0	0	0	0	0	0	0	0	0	0

Table A12.6: Summary of SA findings for safeguarding policies

SA Objective	Policy MLP 27	Policy MLP 28
1 Landscape	+	+
2 Biodiversity and geodiversity	+	+
3 Cultural heritage, architecture and archaeology	+	+
4 Material assets	++	?
5 Natural resources	+	+
6 Climate change and energy	+/-	+/-
7 Flooding	+	+
8 Access to services	?	?
9 Health and amenity	0	0
10 Waste	0	0
11 Traffic and transport	+/-	+/-
12 Growth with prosperity for all	+/-	+/-
13 Provision of housing	+/-	+/-
14 Participation by all	0	0
15 Technology, innovation and inward	+/-	+/-

SA Objective	Policy MLP 27	Policy MLP 28
investment		
16 Population (skills and education)	0	0
17 Population (crime & fear of crime)	0	0

Table A12.7 Summary of SA findings for all submitted sites

	-1.	SA Objectives												
ID	Site	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Ryall North	-	0	-	-/?	-/?	-/?	-	-	0	0	-	+	+
2	Land at Ryall North	-	0	-	-/?	-/?	-/?	-	-	0	0	-	+	+
3	Strong Farms		0	-		-	-/?	0	-	-	0	-	+	+
4	Chadwich Lane deepening	-		-	-	-	-/?	0	-	-	0	-	+	+
5	Wildmoor Quarry extension	-	0			-	-/?	0	-	-	0	-	+	+
6	Clifton East	-				-	-/?	0		-	0	-	+	+
7	Bow Farm	-			-	0/-	-/?	-	-/?	-	0	-	+	+
8	Greenfields Farm, Upton Warren	-		-	-	-	-/?	-	0	-	0	-	+	+
9	Ombersley, West of Boreley Lane	-		-/?		-	-/?	-/0	-	-	0	-	+	+
10	Ombersley, Lineholt West	-	0	0	-	-	-/?	0	0/?	-	0	-	+	+
11	Ombersley, Lineholt East	-	0	0		-	-/?	0	0/?	-	0	-	+	+
12	Ombersley, Lineholt North	-	0	-/?	-	-	-/?	0		-	0	-	+	+
13	Wolverley Glebe	-	-	-	-		-/?	-		-	0	-	+	+
14	Severn Stoke, Sandford	-	-	-		-/0	-/?	-	-/?	-	0	-	+	+
15	Severn Stoke, Madge Hill		0	-	-/?	-	-/?	0		-	0	-	+	+

		SA Objectives												
ID	Site	1	2	3	4	5	6	7	8	9	10	11	12	13
16	Ryall East	-	-	-		-	-/?	0	-/?	-	0	-	+	+
17	Harvington Green Street Allotments	-	0	-	-	-	-/?	0	-		0	-	+	+
18	Harvington North	-	0	-	-	-	-/?	0		-	0	-	+	+
19	Harvington West	-	0	-	-	-	-/?	0	0	-	0	-	+	+
20	Chadwich Lane East	-	-	-/0	-	-	-/?	0	0/?	-	0	-	+	+
21	Clifton South	-		-/?	-	-	-/?	-		-	0	-	+	+
22	Ryall Court Farm	-	-	-	0	0/-	-/?	-		-	0	-	+	+
23	Land south of Ryall North	-	-	-	0	0/-	-/?	-		-	0	-	+	+
24	Land north east of Uckinghall Lane	-	0	0		-	-/?	0		-	0	-	+	+
25	Church Farm, Claines	-	0			-	-/?	0		-	0	-	+	+
26	Pinches 4	-/?	0	0		-	-/?	0	0/?	0/?	0	-	+	+
27	Land opposite Ryall Quarry entrance	-	0	-	-	-	-/?	0	0/?	0/?	0	-	+	+
28	Land at School Lane	-	0/-	0/-		-	-/?	0	0	-	0	-	+	+
29	Land south of Wolverley Road	-		-		-	-/?	0	-/	-	0	-	+	+
30	Land north of Wolverley Road		-	-		-	-/?	0		-	0	-	+	+