





Candidate Site Reference	Candidate Site Name	District	Existing use	Site Area (ha)	Potential Yield (million tonnes)
A60b	Shellow Cross Farm (A60b) - Chelmsford	Chelmsford	Agricultural	103	3.5

The Site is promoted as a new mineral Site at Shellow Cross Farm, Chelmsford. The Site (including both the northern and southern parcel) is approximately 103 hectares. The southern parcel is proposed for 3.5 million tonnes of sand and gravel extraction. The adjoining uses include woodland, agricultural fields, and residential and farm buildings. Roxwell village and civil parish is located to the south east of the Site. Access is proposed off the A1060. See Appendix J for a detailed map of the Site.

Summary of RAG Assessment

The results of the technical and desktop RAG assessment are detailed below.

Landscape and Visual Sensitivity	Biodiversity	Historic Buildings	Archaeology	Flooding	Transport	Access	Public Rights of Way	Geo-Environmental	Hydrology, Hydrogeology and Drainage	Air Quality	Soil Quality	Services & Utilities	Health & Amenity	Green Belt	Airport Safeguarding Zones
Red/ Amber	Red/ Amber	Red/ Amber	Red/ Amber	Amber	Amber /Green	Red/ Amber	Red/ Amber	Green	Amber	Green	Amber	Red/ Amber	Red	Red/ Amber	Green

Key findings of the assessment are as follows:

- The Landscape Character Area (LCA) is Central Essex Farmlands (B1) of which the Site possesses a number of distinct characteristic features of the LCA including the irregular field pattern of arable farmland intersected by hedgerows and small woodlands, this creates a strong sense of complexity increasing the sensitivity to the landscape features. Appropriate consideration is required to protect the characteristic features of the LCA and mitigate the impacts on the landscape.
- Bushey-Hays Spring is located within the centre of the southern parcel and is a designated Ancient Woodland with two thirds of the area designated as a Local Wildlife Site (LoWS). The woodland demonstrates a significant contribution toward the local green infrastructure and visual amenity.
- Site A60(b) comprises a number of arable fields situated to the north of Screens Park Road and Roxwell Rd (A1060). A cross-country conveyor links the southern sections of the Site to the northern areas of the Site. It is not clear how vehicles and staff would access the southern areas of Site. The

boundary and internal Hedgerows are Priority habitats, they are historic and there are a number of significant boundary trees.

- Bushey-hays Spring Local Wildlife Sites (LoWS) is within the Site boundary and it is proposed that the extraction completely surrounds it. Rowes Wood LoWS is on the northern border and Skreens Wood LoWS is adjacent to the conveyor and less than 200m from the main Site area. All of these LoWS are also ancient woodland and are therefore classed as irreplaceable habitat. There is another area of Lowland Mixed Deciduous Woodland Priority habitat within the Site, adjacent to Bushey-hays Spring; this is present on the First Edition OS maps and so it is possible that it could be ancient and therefore classed as irreplaceable habitat. The woodland would be lost by these proposals. Additional consideration to the woodland is required and if it is irreplaceable habitat, losses are not permitted within the Government's Biodiversity Net Gain (BNG) Metric and bespoke assessment and compensation would be required to be agreed with the MPA. Any bespoke compensation would be outside the BNG Metric calculations (The Biodiversity Metric 4.0 User Guide, 2023); bespoke compensation would be required, which could not count towards any Biodiversity Net Gain calculations. The haul road appears to be situated within boundary habitat of Lowland Mixed Deciduous Woodland Priority habitat and Hedgerow priority habitat which would therefore require some removal of the habitat.
- Several Hedgerow Priority habitats and mature trees would require removal, as well as several ditches. Other Hedgerows and ditches would need sections removing to create the conveyor.
- The Site is graded Red-Amber because it could have major impacts upon Bushey-hays and Rowes Wood ancient woodlands, which are both irreplaceable habitat, and a serious impact upon these LoWS and other Priority habitats and species and is likely to require high levels of mitigation to make the Site acceptable. Impacts may include direct habitat loss, significant changes to the hydrology of the ancient woodlands; smothering of leaves and disturbance. There would be a significant loss of habitat connectivity in the area through the loss of, and dissection of, numerous Hedgerows. It could also result in disturbance and loss of habitat for Priority farmland species, e.g. Skylarks.
- The development must not affect the hydrology of the ancient woodlands, Hedgerows and watercourses and it is likely that mitigation would require a substantial buffer from the ancient woodlands in accordance with the Government's Advice on ancient woodlands. There may be less severe impacts if extraction is not on all sides of the ancient woodland. Ancient woodland losses are not permitted within the Government's Biodiversity Net Gain (BNG) Metric and bespoke assessment and compensation would be required to be agreed with the MPA. Any bespoke compensation would be outside the BNG Metric calculations (The Biodiversity Metric 4.0 User Guide, 2023); bespoke compensation would be required, which could not count towards any Biodiversity Net Gain requirement. Other mitigation may include buffers between the Site and Hedgerows; careful consideration to phasing to

minimise impacts; rapid restoration and creation of new replacement habitats, prevention of deterioration of water quality to watercourses. Adequate and appropriate compensatory habitat should be provided for the loss of Woodland and Hedgerow Priority habitat, watercourses and for farmland birds.

- The allocation of the Site would likely result in 'less than substantial' harm at a mid-level to the significance of four Grade II listed buildings through a profound change within their immediate settings: Shellow Cross Farmhouse (List UID: 1366203), Barn 100 metres east-northeast of Shellow Cross Farmhouse (List UID: 1168923), Skreens Lodge (List UID: 1111251) and Mountneys House (List UID: 1235719).
- The impact to Rowes Farmhouse (List UID: 1169285) is likely to be the lowest level of 'less than substantial' harm due to the increased distance from the Site.
- The undeveloped, agrarian landscape of the Site contributes to the setting and significance of these assets and the fundamental change in land use and land character would undermine the ability to understand and appreciate their significance.
- The Site lies within an area known to contain areas of multi-period archaeology with extensive Roman and medieval deposits likely to be present within areas of this Site.
- Archaeological evaluation on the northern part of the quarry proposal has identified extensive Roman occupation. The archaeological work is ongoing and will require extensive large-scale excavation if development proceeds.
- Within the southern part of the Site two probable moated sites, likely to be of medieval date are located within the Site.
- Two scheduled moats located, one immediately west of Skreens Lodge lies on the opposite side of Shellow Road from the Site, the second lies to the south west of the proposed Site.
- Other cropmarks indicate the presence of further enclosures of an unknown date. Immediately to the south and north of the Site further cropmark complexes are recorded with track ways and field systems indicative of potential medieval occupation.
- The access road bisects a range of archaeological deposits known from cropmark evidence.
- The Site is assessed as having a 'high' potential for surface water flood risk as identified within the SFRA.
- The Site has been identified as having a 'low' groundwater flood risk.

- The Site is entirely within Flood Risk Zone 1 and therefore is not at risk from fluvial flooding.
- Access is proposed via an existing consented access under planning application ESS/77/20/CHL onto the A1060, which is classified as a main distributor in Essex County Council's Development Management Route Hierarchy. This accords with (ii) in the methodology (see Appendix G Transport for full methodology):

Where (i) is not feasible, direct access to the main road network involving the construction of a new access/ junction when there is no suitable existing access point or junction.

- It is also understood that the Site has direct access to the haul road associated with ESS/77/20/CHL (see highway access comments)
- No access should be taken from Skreens Park Road.
- The Site is proposing to use an access approved under ESS/77/20/CHL, onto A1060. However, given the increase in HGV movements, alterations to the access arrangement are likely to be required to provide a ghost island right turn lane access from the A1060.
- 9 Public Rights of Way cross the Site. 3 Public Rights of Way are within 100m of the Site. Appropriate consideration would be needed to mitigate potential impacts on these Public Rights of Way and high levels of mitigation may be required which is likely to include diversion especially with regard to those Public Rights of Way crossing the Site.
- The Site has low groundwater vulnerability. The Site is within a Drinking Water Safeguard Zone (Surface Water). A watercourse is present within the Site boundary and another watercourse (Newland Brook) is 140m south of the Site. Drainage ditches are located across the Site. Appropriate consideration would be required to mitigate potential impacts on hydrology, hydrogeology, and drainage.
- The Site contains Grade 2 quality soil (very good quality agricultural land) which is BMV land. Appropriate consideration would be required to mitigate the impacts on soil quality and agricultural land– this is likely to include removal of soils for stockpiling prior to reuse, potentially in site restoration.
- The Site is within 100m of high pressure gas mains. Overhead and underground Openreach BT power lines are within the Site boundary. Further investigation and consultation would be needed to determine appropriate mitigation measures to avoid impact on gas mains to make the Site acceptable which may include diversion and/or protection.
- One residential building is adjacent to the boundary of the Site (0m). Two residential buildings and two farm buildings (Elms Farm and Shellow Cross Farm) are outside the Site boundary less than or equal to 20m from the Site.

Three residential buildings, two commercial buildings and one farm building (Skreens Park Farm) are more than 20m but less than or equal to 50m from the Site. Twenty four residential buildings are more than 50m but less than or equal to 250m from the Site. Given the proximity of sensitive receptors, mitigation would be required, however, the levels of mitigation required to ensure that there are no serious impacts on health and amenity would likely be difficult to achieve.

 The Site is located within the Metropolitan Green Belt in the Chelmsford City Council and Epping Forest District Council areas. NPPF (paragraph 150) states that mineral extraction is not inappropriate development in the Green Belt provided the development preserves openness and does not conflict with the purposes of including land within the Green Belt. The Site will contain a processing plant, a mobile plant area including mobile washing and dry screener and bunding/screening to reduce the view of the Site for properties along Elm Road which has the potential to impact openness. Due consideration of impact on the Green Belt would therefore need to be given in determining whether this would be inappropriate development or not.



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The information and maps above represent a summary of the site assessment. You are encouraged to view the methodology and more detailed assessment for each site within appendices B-I. These can be found on the Candidate Sites Assessment webpage on our consultation pages: <u>www.essex.gov.uk/minerals-review</u>

Appendix B - Landscape and Visual Sensitivity

Appendix C - Biodiversity

Appendix D - Historic Buildings

Appendix E - Archaeology

Appendix F - Flooding

Appendix G - Transport

Appendix H – Access

Appendix I - Public Rights of Way, Geo-Environmental, Hydrology, Hydrogeology & Drainage, Air Quality, Soil Quality, Services & Utilities, Health & Amenity, Green Belt, and Airport Safeguarding Zones