Candidate Site Reference	Candidate Site Name	District	Existing use	Site Area (ha)	Potential Yield (million tonnes)		
A74	Thorrington Hall Farm	Tendring	Agricultural	105.6	4.70		

The Site is promoted as a new minerals Site at Clacton Road, Thorrington, Tendring. The Site area is approximately 105.6 ha and is proposed for 4.70 million tonnes of sand and gravel extraction. The Site could be worked at any time during the plan period. Infrastructure needed on site includes a processing plant. The adjoining uses include agricultural fields, residential and commercial buildings, Clacton Road, Brightlingsea Road and woodland. The village of Thorrington is located to the north of the Site. A new road access to the Site is likely to be provided to the B1027 between Avocet Place and the property lying to the north of the Clacton Road, east of Station Road and west of Avocet Place. 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
Amber	Red/ Amber	Red/ Amber	Amber	Amber	Amber /Green	Red/ Amber	Red/ Amber	Green	Amber /Green	Green	Amber	Red/ Amber	Red	Green	Green

Key findings of the assessment are as follows:

- The Landscape Character Area (LCA) is Tendring Plain (E3) of which the Site possesses a limited number of distinct characteristic features including large flat farmland plateau, with straight and regular field patterns.
- St Mary Magdalen Church (Grade II* listed) is located on the north-eastern boundary of the Site, directly adjacent to the Ancient Woodland. There are strong views of the Church over the field hedgerows from the public footpath 8 (Thorrington) that runs through the Site. Whilst the immediate setting of the Church may have little impact as a result of mineral extraction, the wider setting of the Church are views in will be adversely affected.
- Site A74 is in a highly sensitive location. It is 280 metres from the Colne Estuary Special Scientific Interest (SSSI), Special Protection Area (SPA) and Ramsar site, and 330 metres from the Essex Estuaries Special Area of Conservation (SAC) and the Blackwater, Crouch, Roach, and Colne Estuaries Marine Conservation Zone. These areas contain Coastal Saltmarsh and Mudflats Priority habitats. The Colne Estuary is one of the most important areas for overwintering waterbirds in the UK and is of international importance

for several breeding bird species. There is a high potential for significant effects to the integrity of the SPA, SAC and Ramsar site which need to be considered further through the plan-level Habitats Regulations Assessment and any subsequent planning application.

- The Site also contains a number of ancient, veteran and candidate veteran trees; ancient and veteran trees are considered to be irreplaceable habitat.
- Two Local Wildlife Sites are adjacent to the Site, both of which are listed as Lowland Mixed Deciduous Woodland Priority habitat and ancient woodland. There are a number of Hedgerows Priority habitat adjacent to the Site boundary and within the Site.
- The Site is graded Red-Amber because ecological impacts are likely to be major and it is likely to require high levels of mitigation to make the Site acceptable. Detailed studies combined with a Habitats Regulations Assessment (Appropriate Assessment) would be required to assess whether the Site would have a major impact upon the River Colne and its associated international and national designations and whether the adverse effects on the integrity of internationally important wildlife sites could be avoided with appropriate mitigation to the satisfaction of Natural England. This includes impacts to water quality affecting the designated (and Priority) habitats of the River Colne and other tributary watercourses; disturbance to, and loss of functionally-linked land for, breeding and wintering birds for which the Colne Estuary SSSI, SPA and Ramsar site are designated e.g. for Brent Geese.
- In addition, the Site could have major impacts upon irreplaceable habitats (veteran and ancient trees) and ancient woodland. Hedgerows and Lowland Mixed Deciduous Woodlands which are Priority habitats could be affected directly and indirectly by the proposals.
- Other mitigation is likely to include prevention of hydrological changes to the Woodlands and Hedgerows Priority habitats; substantial buffers between the Quarry and the Woodlands and Hedgerows Priority habitats; and prevention of deterioration of water quality to the River Colne; prevention of disturbance to breeding and non-breeding birds using the River Colne which are designation features of the SSSI, SPA and Ramsar site; watering to suppress dust; and wildlife sensitive lighting. Compensation would be required for the loss of farmland bird habitat. The loss of the veteran and ancient trees losses is 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.
- The allocation of the Site would likely result in 'less than substantial' harm at a mid-level to the significance of the Grade II* listed Church of St Mary Magdalene (List UID: 1265150) and neighbouring Grade II listed Thorrington Hall (List UID 1235267).

- The Site is undeveloped open, agrarian land which contributes to the setting and significance of both listed buildings. There has been a low degree of change to this landscape over time and the listed buildings currently enjoy a sense of seclusion and tranquillity, which allows their significance to be appreciated.
- The church tower is a landmark and it is likely that views across the Site would be disrupted by built development and vehicular movement associated with such a fundamental change in land use and character.
- The Site contains a wide range of archaeological deposits identified from aerial photography.
- On the western area of the Site a sequence of small enclosures and two possible ploughed flat burial mounds are present along with former field boundaries. On the eastern area of the Site a series of linear features located at right angles to a probable trackway are recorded.
- Within the surrounding area a range of other cropmark sites are recorded comprising a similar mix of circular features possibly representing barrows, enclosures, and linear features.
- The church/hall complex of Thorrington Hall lies to the northeast of the Site.
- The Site is assessed as having a 'medium' potential for surface water flood risk as identified within the SFRA.
- The Site has been identified as having a 'medium' groundwater flood risk.
- The Site is entirely within Flood Risk Zone 1 and therefore is not at risk from fluvial flooding.
- Access proposed via a new access serving the proposed site onto the B1027 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.

• However, the implementation of a 7.5 tonne weight restriction on Alresford viaduct on the B1027 north-west of Wivenhoe Road, Alresford, and the implementation of a diversion route to avoid the weak structure mean that all HGV movements from the Site would be directed eastwards on the B1027 to St Osyth and Clacton on Sea and then northwards onto the A133.

- Concerns over HGV traffic generation/routeing from site, in particular for Thorrington village.
- Access proposed by the creation of a new access onto the B1027. No details provided.
- Appears to have good visibility in both directions
- Concerns over route from site to main road network due to 7.5T weight restriction on the B1027 Main Road, Alresford.
- Due to potential increase in HGV movements on top of the current vehicle movements, mitigation measures to upgrade the existing junction (double mini roundabout) with Tenpenny Hill, Station Road, B1029 Brightlingsea Road and B1027 Clacton Road may be required. The junction has been highlighted as part of Tendring's Local Plan.
- 2 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 unproductive/medium to low groundwater vulnerability. A water body is present within the Site boundary and a large drainage ditch runs along the Site. The Site is likely to have a minor impact on hydrology, hydrogeology, and drainage. 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) and Grade 3 quality soil (good to moderate quality 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 contains 11kV overhead electricity lines within the Site boundary. The Site contains intermediate pressure gas mains (allocated by Cadent Gas) within the Site boundary. Local Anglian Water foul rising mains are present within the Site boundary. Further investigation and consultation would be needed to determine appropriate mitigation measures to avoid impact on the gas main and foul rising main to make the Site acceptable which may include diversion and/or protection.
- Two residential buildings are adjacent to the boundary of the Site (0m). Fifty six residential buildings are outside the Site boundary less than or equal to 20m from the Site. Twenty two residential buildings and two commercial buildings are more than 20m but less than or equal to 50m from the Site. Two community facilities (place of worship), one community facility (allotments), commercial activity (industrial estate), one outdoor amenity

(play area), one sports facility (recreation ground), six commercial buildings and two hundred and three 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.

