

**DR/35/14**

committee DEVELOPMENT &amp; REGULATION

date 26 September 2014

**MINERALS AND WASTE DEVELOPMENT**

Proposal: **Extraction of an estimated reserve of 3 million tonnes of sand and gravel (from Sites A3 and A4 as identified in the Minerals Local Plan 2014) and retention of existing access onto the A120, private haul road, sand and gravel processing plant, ready mixed concrete plant, bagging plant, dry silo mortar plant and water management system, internal haul roads and re-contouring of restoration levels of extraction areas (Sites R and A2) with restoration to a combination of agriculture, woodland, biodiversity, water lagoons and to levels appropriate to safeguard implementation of planning permission ESS/37/08/BTE (Integrated Waste Management Facility)**

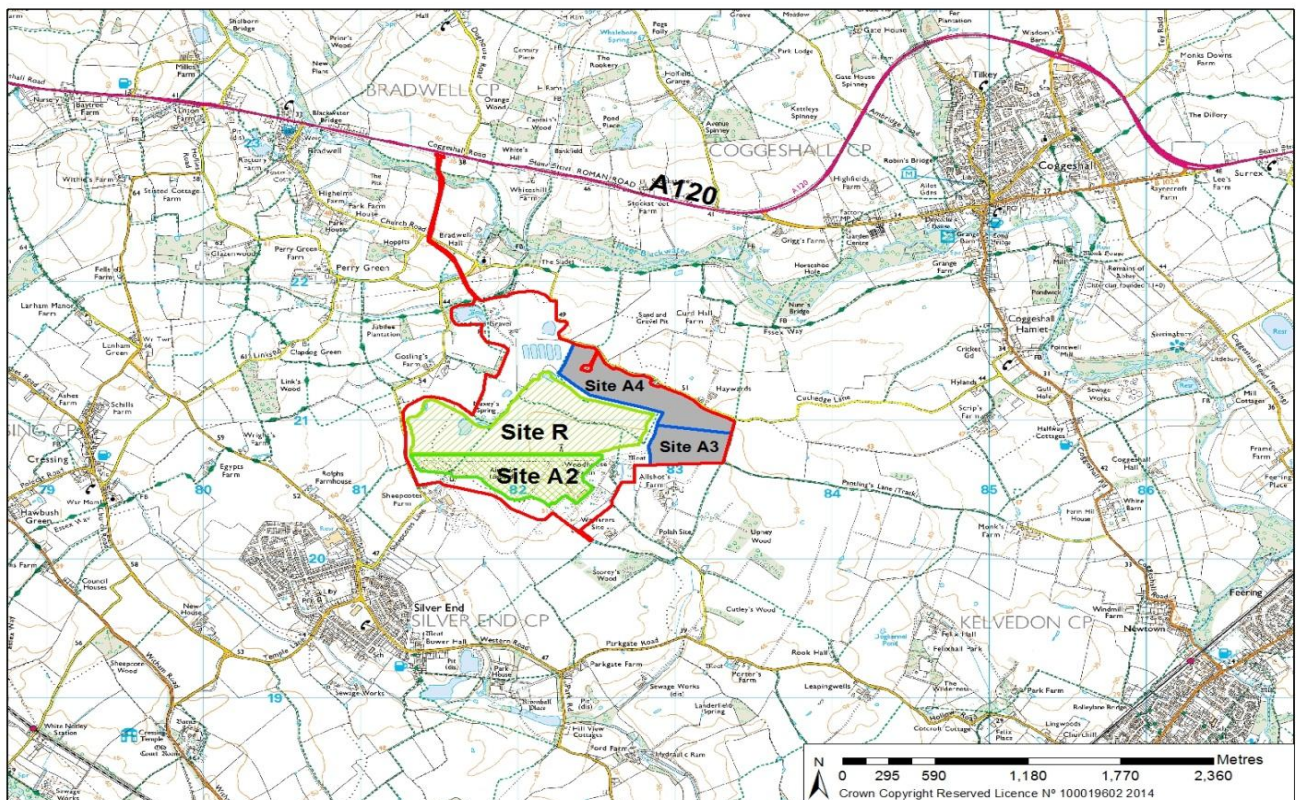
Location: **Bradwell Quarry, Church Road, Bradwell, CM77 8EP and land south of Cuthedge Lane Ref: ESS/24/14/BTE**

Applicant: **Blackwater Aggregates**

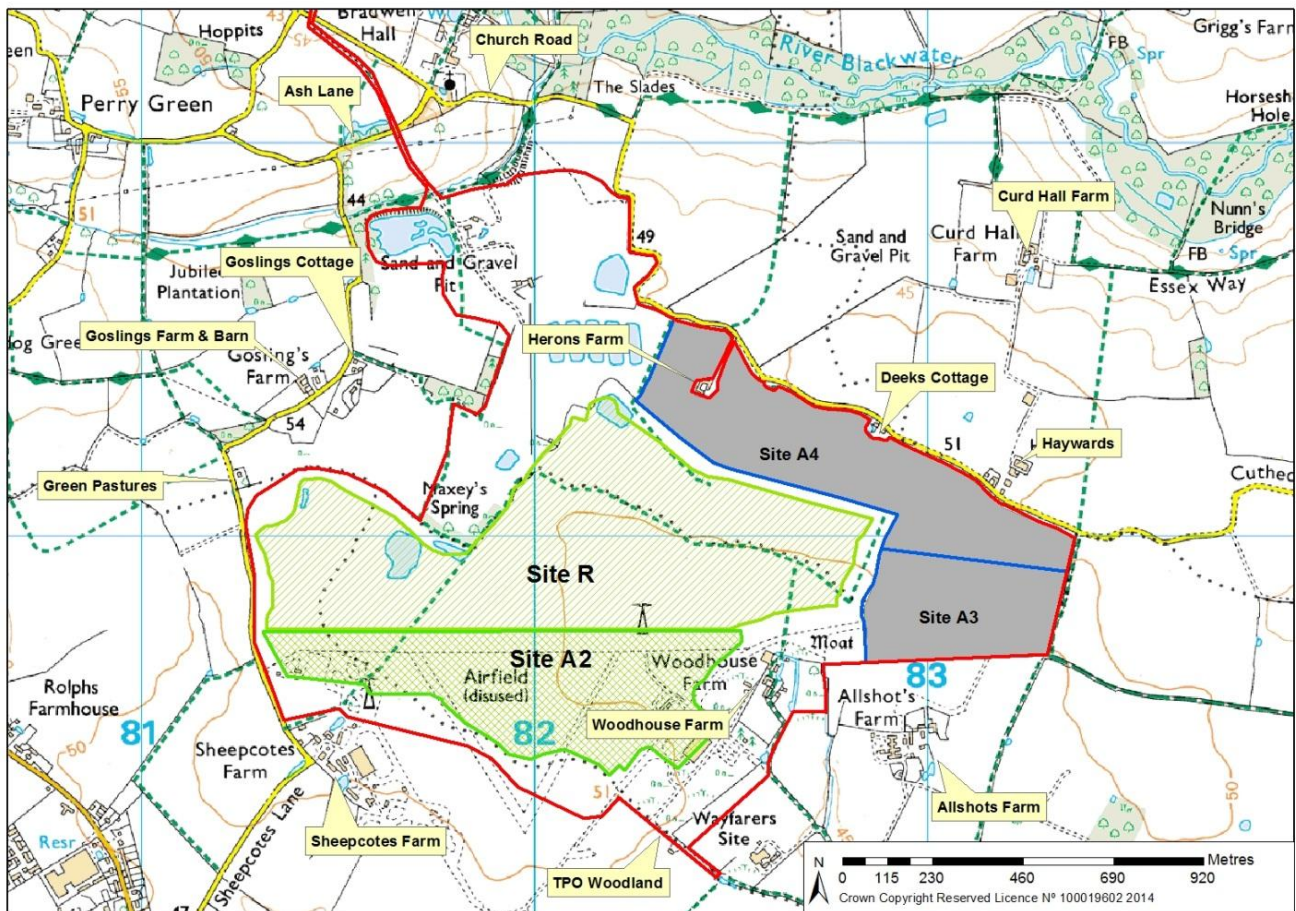
Report by Director of Operations, Environment and Economy

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The full application can be viewed at [www.essex.gov.uk/viewplanning](http://www.essex.gov.uk/viewplanning)







## 1. BACKGROUND

There has been a quarry at Bradwell since the 1940s; however, the quarry with its existing access and processing plant has been operational since 2000. The site has been the subject of various planning permissions. Planning permission ESS/07/98/BTE was granted in 1999. This granted permission for sand and gravel extraction within site R (71.6ha) a preferred site with the Minerals Local Plan 1996 as well as the private access road to the A120 and the processing area and other supporting infrastructure including internal haul roads and silt lagoons.

Subsequently there were various applications for additional secondary plant including a bagging plant and dry silo mortar plant.

In 2011 planning permission ESS/32/11/BE was granted for an extension to the site to the south (site A2 in the then emerging replacement Minerals Local Plan). This application included the majority of the area of mineral extraction already permitted under planning permission ESS/37/08/BTE (PINS Ref. APP/Z1585/V/09/2104804) as part of the Integrated Waste Management Facility, which has not to date been implemented. ESS/32/11/BTE permitted extraction until 20 March 2016 and included retention of the existing access onto the A120, haul roads and supporting infrastructure including, weighbridge, offices, processing plant, bagging plant, dry silo mortar plant (DSM) and ready mix concrete plant.

An amendment to this application was made in 2012 allowing the DSM to allow

operating hours the same standards as the rest of the quarry.

## **2. SITE**

The application site lies 6km east of Braintree. The application site is located between the villages of Bradwell (approx. 1km northwest), Silver End (approx. 0.5km to the southeast), Kelvedon (3.5km to the southeast) and Coggeshall (2.5 km to the north east). The “application site” consists of all of the existing Bradwell Quarry, including the site access, plant area and previously worked and existing extraction areas as well as the proposed extraction area. The application site area is 191ha. The area of proposed new extraction includes Preferred sites A3 and A4 of the Minerals Local Plan 2014 which has an area of 34.5ha (of which 30ha would be quarried) (hereafter referred to as site A3 & A4). A4 is bounded on its north side by Cuthedge Lane (A Protected Lane as defined in the Braintree District Local Plan Review [BDLPR]), site and lies north and east of site R, which is this area is under restoration. Site A3 lies to the south of site A4 and east of the existing quarry.

The quarry access is onto the A120 approximately 1km east of Bradwell village. There is an existing private access road approximately 1km long that heads south to the processing area, crossing the River Blackwater by two bailey bridges and then crossing two minor public roads; Church Road and Ash Lane (a Protected Lane). The access road is two way from the A120 to Church Road, crossing the River Blackwater, then single lane with passing bays between Church Road and Ash Lane and then two way south of Ash Lane. The crossing points on Church Road and Ash Lane are both single width only.

The processing area is linked to the current extraction area by an unmade haul road which heads due south from the plant area approximately 1km to the current extraction area.

The nearest residential properties to sites A3 and A4 are on Cuthedge Lane and include: Herons Farm, which lies within the western end of site A4 (but does not form part of Preferred site A4) and 100m west of the proposed extraction area; Deeks Cottage lies immediately adjacent to site A4 and Haywards on the north side of Cuthedge Lane opposite site A4. Allshots Farm (Grade II Listed Building) lies approximately 150m to the south; a scrap yard lies between the extraction area and the residential properties of Allshots Farm. Approximately 500m north of site A4 lies Curd Hall (Grade II Listed Building). Approximately 1.5Km to the east lies Scrip’s Farm.

The larger application site area includes the infrastructure for the site, including plant, haul roads and previously/currently worked areas, the closest residential properties to this larger application site are along Sheepcotes Lane to the west including Sheepcotes Farm (Listed Building), Green Pastures bungalow, Goslings Barn, Farm and Cottages, all greater than 1km from the proposed extraction area. Bradwell Hall (Listed Building) lies 150m east of the existing access road.

Woodhouse Farm and buildings (Grade II Listed) are within the application site, but approximately 250m from the proposed extraction areas. The house is currently

unoccupied, weather proofing was required as part of ESS/32/11/BTE. The Silver End Conservation Area lies 1.5km to the southwest of the proposed extraction area.

There are 5 Local Wildlife Sites within 2 km of the application site at Storeys Wood (southwest of the site) and Blackwater Plantation West (north of the main site), Upney Wood (south east of the site), Rivenhall Thicks (southwest of the site), Links Wood (west of the site) and Park House Meadow (north west of the site). Maxey Spring is area of woodland northwest of the Site R which has been extended with restoration planting.

Footpaths within sites A3 and A4 include Bradwell 24 which heads south from Cuthedge Lane east of Herons Farm but ends in a dead end. Footpath 53 crosses site A4 from Cuthedge Lane in a southwest direction and Footpath 68 also heads south across site A4 east of Deeks Cottage, in addition Bridleway 81 links Cuthedge Lane to Pantlings Lane. Three footpaths Bradwell 19, 57 (The Essex Way) and 58, cross the existing quarry access road.

Sites A3 and A4 include land within agricultural use as well parts of the runway of the redundant Rivenhall Airfield and a tower and wooden building at the eastern end of the runway which was actually constructed by Marconi's when the airfield was leased by them. Site A3 and A4 contains approximately 31ha of agricultural land graded 3a.

The airfield and surrounding land is situated on a plateau approx. 50m AOD with a very slight fall from northeast to southwest. There are limited elevated viewpoints from which to oversee the site, but there are some views from higher ground to the north east.

Restoration to agriculture is largely complete within the western area of site R and the eastern end of site R is partly restored to arable farmland. Extraction is currently taking place within phase 3 of site A2, which is likely to be completed by the end of 2014.

The geology of the site comprises boulder clay varying between 2.5m and 13m thick (average 7.5m), Kesgrave sands and gravels varying between 2m to 13m thick (average 6m) overlying more than 70m of London clay.

The application site includes Waste Local Plan Preferred Location for Waste Management WM1 (Rivenhall Airfield, 6ha). Planning permission ESS/38/06/BTE for an Integrated Waste Management Facility (IWMF) was granted in 2009, but was not implemented and now has expired. A further planning permission (ESS/37/08/BTE) for an IWMF was granted on 2 March 2010 following a public inquiry. This planning permission has not been implemented but remains extant. The IWMF included mineral extraction. The mineral permitted for extraction as part of the IWMF permission has largely been worked out as part of mineral extraction permitted by ESS/32/11/BTE, but an area under TPO woodland remains.

### **3. PROPOSAL**

The application is for the extraction of 3 million tonnes of sand and gravel, 1 million tonnes from site A3 and 2 million tonnes from site A4, over a 3 year period, with progressive restoration, such that total period applied for is 4 years.

The application is supported by an Environmental Statement submitted in accordance with the EIA Regulations 2011.

The application includes the retention of the existing infrastructure, including the haul road to the A120, and all existing primary and secondary processing plant, including offices and weighbridge, sand and gravel washing plant, ready mix concrete plant, bagging plant, dry silo mortar plant and existing silt and water management systems.

The extraction would be undertaken in 6 phases, of approximately 500,000 tonnes each. The phases would be worked in clockwise direction, working east from Herons Farm in 4 phases through site A4 and then south and finally west to complete site A3. The application does not include the extraction of mineral (1 million tonnes) surrounding Heron's Farm which forms part of Preferred Site A4; these reserves are to be worked at a later date, subject to planning permission.

The overburden varies between 2.5m to 13m thick average of 7.5m thick. The sand and gravel is found in a layer 2m to 13m thick average of 6m thick and below this lies 70m thick of London clay. Working would be progressive such that after the initial phases, stripped materials would be used in the restoration of earlier phases, where there is a surplus of materials these would temporarily stored south of the workings on the unrestored areas of Site R.

Topsoil and subsoil stripped from the first phase would be used to form the screening bunds proposed between the site and Heron's Farm, within the site adjacent to Cuthedge Lane and along the eastern and southern boundary of the site. The bunds would be 3m in height.

Sand and gravel would be extracted and transported by dump trucks on an internal haul road, linking to the existing haul road used to transport mineral to the processing area. Mineral would be processed through the on-site facilities. The extended haul road in the vicinity of Heron's Farm would be below natural ground levels.

There are 3 properties on Cuthedge Lane. A minimum 100m stand-off would be maintained from Heron's Farm, throughout the development. Deeks Cottage lies adjacent to the site and Haywards (currently vacant) on the north side of Cuthedge Lane, the screening bunds/extraction would be within 100m of these properties. These later two properties are within the ownership of the applicant; both properties would be vacant during the period that extraction operations are within 100m of these two properties.

The maximum extraction per year would be around 1 million tonnes.

The restoration of sites A3 and A4 would be back to agriculture. The application includes proposals for revised restoration levels for parts of site R, to create a bowl

shape, removing the previously approved plateau feature within the site and also includes enlarging the water body known as New Field Lagoon. The water body would increase in size from 250,000m<sup>3</sup> to 700,000m<sup>3</sup>. The surplus materials from extending this lagoon (1.25 million m<sup>3</sup>) would facilitate the restoration of the proposed extraction areas back to pre-existing land levels.

The restoration scheme would deliver 9.4ha of priority species habitat, including 3.5ha of reedbed and wet grasslands around New Field Lagoon, 1.5ha open mosaic habitat, utilising crushed concrete substrate and 4.4 of species rich grassland to the north and east of New Field Lagoon. The lagoon margins have been designed to create marginal water features not subject to seasonal falls in levels of main water body. The restoration also includes areas of woodland.

The proposed hours of operation for both the plant area and extraction operations and vehicles leaving and arriving at the site would be Monday to Friday 7am to 6:30pm and Saturday mornings 7am to 1pm with no operations on Sundays or Public Holidays, which are the same as those for the existing operation. There are currently extended hours of operation for the bagging plant until 10pm, but this only permits bagging of the material, not its export.

The proposed HGV traffic movements are a maximum of 590 movements (295 in and 295 out) per day Monday to Friday and 294 movements (147 in and 147 out) per day Saturdays, with an average of 458 per day (Monday to Friday averaged over a calendar year). This is the same as the current approved HGV traffic for the existing quarry.

The application would require the temporary diversion of Public Rights Of Way (PRoW) which cross sites A3 and A4; alternative routes have been proposed to maintain north-south and east-west links that these PRoWs provide. An additional section of bridleway would be provided making a direct link from Sheepcotes Lane to Pantlings Lane. A PRoW Bradwell 24 from Cuthedge Lane that currently is a dead end would be extended south to link to other existing paths.

In line with the requirements of the MLP the application also provides indicative phasing for Preferred and Reserve Mineral site A5, A6 and A7, indicating that the next area for extraction would be site A5, subject to permission being granted. The coming forward of sites A6 and A7 would be dependent on the County's landbank falling below 7 years, but would be in the order A6 then A7. The applicant has also provided an indicative restoration master plan for the whole site (A5, A6 and A7), providing 50ha of restoration to priority bio-diversity habitats.

#### **4. POLICIES**

The following policies of the Mineral Local Plan adopted 2014, the Braintree District Council Local Development Framework Core Strategy 2011 (BCS) and Braintree District Local Plan Review 2005 (BDLP) provide the development framework for this application. The following policies are of relevance to this application:

MLP      BCS      BDLP

Preferred and reserve sites for sand and gravel extraction	P1	
Presumption in favour of sustainable development/ Sustainable development locations	S1	
Protecting and enhancing the environment and local amenity	S10	
Access and transportation	S11	
Mineral site restoration and afteruse	S12	
Development management criteria	DM1	
Planning conditions and legal agreements	DM2	
Primary processing plant	DM3	
Secondary processing plant	DM4	
Countryside		CS5
Promoting accessibility for all		CS6
Natural Environment and Biodiversity		CS8
Built and Historic Environment		CS9
Industrial & Environmental Standards		RLP 36
Pedestrian Networks		RLP 49
Transport Assessments		RLP 54
Pollution control		RLP 62
Air quality		RLP 63
External Lighting		RLP 65
Sustainable drainage		RLP 69
Water supply and land drainage		RLP 71
Water quality		RLP 72
Landscape Features and Habitats		RLP 80
Trees, Woodland, Grasslands and Hedgerows		RLP 81
Protected species		RLP 84
Rivers corridors		RLP 86
Protected Lanes		RLP87
Archaeological Evaluation		RLP 105
Archaeological Excavation and Monitoring		RLP 106

The National Planning Policy Framework (Framework) was published on 27 March 2012 and sets out the Government's planning policies for England and how these are expected to be applied. The Framework highlights that the purpose of the planning system is to contribute to the achievement of sustainable development. It goes on to state that there are three dimensions to sustainable development: economic, social and environmental. The Framework places a presumption in favour of sustainable development. However, paragraph 11 states that planning law requires that applications for planning permission must be determined in accordance with the development plan unless material considerations indicate otherwise.

For decision-taking the Framework states that this means; approving development proposals that accord with the development plan without delay; and where the development plan is absent, silent or relevant policies are out-of-date, granting permission unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this

Framework taken as a whole; or specific policies in this Framework indicate development should be restricted.

In respect of the above, paragraph 215 of the Framework, which it is considered is applicable to the BCS and BLP, states that due weight should be given to relevant policies in existing plans according to their degree of consistency with this Framework (the closer the policies in the plan to the policies in the Framework, the greater the weight that may be given). Consideration of this, as such, will therefore be made throughout the appraisal section of this report.

With regard to updates/replacements or additions to the above, the Framework (Annex 1, paragraph 216) states from the day of publication, decision-takers may also give weight to relevant policies in emerging plans according to:

- The stage of preparation of the emerging plan (the more advanced the preparation, the greater the weight that may be given);
- The extent to which there are unresolved objections to relevant policies (the less significant the unresolved objections, the greater the weight that may be given), and;
- The degree of consistency of the relevant policies in the emerging plan to the policies in this Framework (the closer the policies in the emerging plan to the policies in the Framework, the greater the weight that may be given).

Braintree District Council originally intended to create a Local Development Framework which it was envisaged would supersede the Local Plan Review in its entirety. In this regard, the BCS was adopted on 19 September 2011 and it was anticipated that the remaining BLP policies would be replaced by those to be contained in a Site Allocations and Development Management Plan. During a meeting on 30 June 2014 it was however resolved not to proceed with the Draft Site Allocation and Development Management Plan. Work has now instead commenced on a new Local Plan, which will set out the Council's strategy for future development and growth up to 2033. This includes building the right number and types of houses, developing the appropriate type of retail and recreational facilities, getting the right office and industrial spaces, creating opportunities for local jobs and protecting our wildlife, landscapes and heritage. The new Local Plan will ultimately replace the BLP and BCS however at the current time it is not considered is at a sufficient stage to have significant weight in the determination of this application.

## **5. CONSULTATIONS**

The application has been subject to two periods of consultation, following the submission of amendments and additional information to support the application. The following provide the responses from both consultations.

**BRAINTREE DISTRICT COUNCIL** – No objection – However, remain concerned that the overall development (sites A3, A4, A5, A6 and A7) should be carried out in a way that minimises impacts on the landscape and on the local residents by for example ensuring that restoration is carried out on an ongoing basis as soon as possible. Also wish to ensure that a condition is imposed on any subsequent



planning consent limiting HGV movements on the site to that currently permitted.

ENVIRONMENT AGENCY: No objection. The following matters were raised  
Flood risk- Would seek clarification that the capacity of New Field Lagoon is adequate to accommodate all surface water within the site

Comment: Additional information has been submitted to confirm New Field Lagoon has adequate capacity

Water abstraction – If more than 20m<sup>3</sup> of water is to be required from ground or surface water an abstraction licence would be required.

Groundwater – Noted that the proposals include monitoring and investigation of potential impact on water levels at Curd Hall Pond, such monitoring and investigation should be secured through the planning process.

Pollution prevention and control – Impacts on nearby water courses during extension and operational phases should be considered. Condition required with respect to storage of fuels and chemicals. Other advisory information.

Environmental Permitting – an Environmental permit would be required and prior agreement required with respect to discharging of water

HIGHWAYS AGENCY: No objection. There would be minimal impact on the A120, however all existing conditions and obligations shall remain in place.

ENGLISH HERITAGE: The application should be determined in accordance with national and local policy guidance, and on the basis of local specialist conservation advice.

DEPARTMENT OF LOCAL GOVERNMENT & COMMUNITIES (National Planning Casework Unit): No comments.

NATURAL ENGLAND: No objection. The site is 5km from nearest SSSI (Belcher's & Broadfield Woods) and as proposed the SSSI would not be affected. Standing advice should be followed with respect to protected species. It is noted that the proposals include the creation of priority habitats, which is in conformity with the MLP and emerging ECC Biodiversity Restoration Supplementary Planning Document.

ESSEX WILDLIFE TRUST: No comments received

RSPB: No comments received

CPRE: No comments received

ESSEX RAMBLERS ASSOCIATION (ERA): No comments received

HIGHWAY AUTHORITY: No objection subject to conditions/obligations requiring;

- No vehicular access for mineral traffic except by way of the A120 and existing access road;
- Maintenance of signage and measures to deter vehicular access/egress from and to Ash Lane and Church Road from the private access road.

HIGHWAY AUTHORITY (Public Rights of Way): No objection. Diversions would be required under the Town & Country Planning Act.

COUNTY COUNCIL'S NOISE CONSULTANT – No objection, subject to conditions setting maximum noise limits at noise sensitive locations and for temporary operations, with monitoring to show compliance. The applicant has demonstrated that the quarry during normal operation and temporary noisier operations could work within existing permitted maximum noise limits. Conditions would be required to secure reduced plant operation adjacent to Heron's Farm, Deeks Cottage, Haywards to ensure maximum noise levels would not be exceeded.

PLACES SERVICES (Ecology): No objection, welcome commitment to areas of priority habitats and for Construction and Environment Management Plans, which should include buffer zones with respect to protection of birds. Open mosaic areas should be located on south facing slopes.

PLACE SERVICES (Landscape): No objection, subject to conditions with respect to planting.

PLACE SERVICES (Archaeology): No objection, subject to conditions. Adequate archaeological evaluation provided identifying discrete areas of archaeological remains which would require preservation by recordings.

BRADWELL PARISH COUNCIL – Made the following comments:

- Consider the application should be accompanied by a new transport and traffic survey
- Consider the A120 requires considerable infrastructure improvement before further traffic uses the road.

Comment: An EIA Scoping Opinion was requested and provided and included consultation with the Highways Agency and Highways Authority and a Transport Impact Assessment was not required, only a Transport Statement.

- Concern with respect to the impact of further mineral extraction on the countryside, wildlife habitats and PRow access

KELVEDON PARISH COUNCIL: No objection. The site is a good neighbour to the parish.

SILVER END PARISH COUNCIL: No comments received.

RIVENHALL PARISH COUNCIL (adjacent): Object on the following grounds:

- The Parish were not notified formally of the application.

Comment: This was an error. Fortunately the Local Member altered the PC to the application and the PC was notified in the 2<sup>nd</sup> round of consultation.

- Comments re the fact that MLP not adopted at the date of submission in May 2014.

Comment: MLP adopted July 2014 resolving these issues.

- Concern that the use of terminology within the application particularly with reference to areas and relationship with IWMF are confusing.
- The application states it is for the whole of the quarry when it is only for sites A3 and A4 previous areas excavation and restoration having been approved under previous consents.

Comment: While the application is only for new extraction in sites A3 and A4, changes are proposed to the restoration of previously worked or areas being worked, including level changes and an increase to the size of New Field Lagoon.

- Concern that the minerals permission should not be seen as justification for the IWMF, there remains outstanding reserves of mineral under TPO trees permitted to be removed only if the IWMF were commenced, which is not clear within the application documentation.

Comment: The application does not propose extraction of mineral outside of the Preferred areas of site A3 and A4.

- It is noted that the proposals see no increase in traffic and use existing processing facilities. The restoration is to agriculture and habitat creation.
- PRoW should be maintained or temporarily diverted with safe and usable routes well-signed.
- The application implies the use of public rights of way are little used, local view is that the airfield is often walked and there is interest in the previous WWII use.

Comment: Public access is only permitted on PRoW and linkages these provide would be maintained by temporary diversions, should permission be granted.

- The parish would wish to see greater habitat creation and at an earlier stage, particularly in relation to species known to be on the site currently.

COGGESHALL PARISH COUNCIL (adjacent): No comments received

LOCAL MEMBER – BRAINTREE – Witham North – Requests the application be determined at committee as it was premature to the adoption of the MLP.

Comment: Since submission of the application the Minerals Local Plan has been adopted. In any event all applications accompanied by an EIA are considered by committee.

BRAINTREE – Braintree Eastern – any comments received will be reported.

## **6. REPRESENTATIONS**

13 properties were directly notified of the application. No letters of representation have been received.

## **7. APPRAISAL**

The key issues for consideration are:

- A. Policy considerations & Need
- B. Landscape and Visual Impact;
- C. Water Environment
- D. Noise and dust;
- E. Traffic, Highways & Public Rights Of Way;
- F. Heritage Impact
- G. Ecology;
- H. Agriculture & Soil;
- I. Restoration & Afteruse;
- J. Social & Economic.

### **A POLICY CONSIDERATIONS & NEED**

MLP Policy P1 (Preferred and reserve sites for sand and gravel extraction) states, in summary, that, on preferred sites, the principle of extraction has been accepted and the need for the release of mineral has been proven.

Bradwell Quarry's position on the A120 makes it well placed to serve both growth in Braintree and Colchester. Braintree District Council has recently made the decision not to progress its Site Allocations and Development Management Plan, recognising there a greater number of houses are required to be planned for than had been identified in the plan, but the new local plan would seek to allocate land for development.

The MLP identifies Site A3 and A4 Bradwell as preferred sites for mineral extraction. It sets out the following requirements

With respect to all the Bradwell Sites:

- 1. Mineral from the site would be processed through the existing processing plant.*
- 2. Mineral traffic would use the existing main site access, and HGV movements would be restricted in line with current levels of working to avoid adverse impacts to the A120. The phasing of site working would need to reflect HGV movement limitations. A Transport Assessment would be required.*

*3. Improvements to the crossing points at Ash Lane and Church Road would be required.*

*4. There has been a long history of settlement and occupation within this landscape. A historic environment assessment would be required with any application/ EIA.*

*5. The sites comprise the best quality Grade 2 agricultural soils and it is expected that these would be retained on site during restoration.*

*6. A Masterplan would be required covering the Bradwell Quarry in its entirety. This would ensure all pre-extraction activity, site working and restoration is considered as a whole and restoration potential is maximised including the opportunity for significant biodiversity enhancement and habitat creation on site. The first site for Bradwell Quarry for which there is an application (e.g., from the sites A3-A7) should provide indicative phasing/restoration levels/after-uses for all the Bradwell Quarry Preferred and Reserve Sites as part of the Masterplan. The developer shall be expected to enter into a legal agreement to ensure that any subsequent applications for Preferred or Reserve Sites at Bradwell Quarry shall be in accordance with the Masterplan and indicative phasing/restoration levels/ after-uses. Careful consideration must be given to the final low-level restoration contours to ensure the final landform blends with the surrounding topography and could blend with the levels and planting of the strategic waste management development (Ref ESS/37/08/BTE) if implemented.*

Issues identified specific to Site A3:

*1. The working and restoration of site A3 and any other Bradwell extension sites, would need to be integrated with and not compromise the permitted strategic waste management facilities at Rivenhall.*

*2. PROW bridleway Kelvedon 40 crosses the site and would require temporary diversion during operations.*

Issues identified specific to Site A4:

*1. Rivenhall Airfield received planning permissions in 2009 & 2010 for the development of a strategic waste management facility. The working and restoration of site A4 and any other Bradwell extension sites would need to be integrated with and not compromise permitted waste development.*

*2. Adequate stand-off distances/bunding/screening would be required to protect Herons Farm and Deeks Cottage on the northern boundary of the site and Haywards Cottage.*

*3. Appropriate bunding would be required to reduce the impact on the Protected Lane on the northern boundary (Cuthedge Lane).*

*4. PROW footpaths Bradwell 53 and 68 and Bridleways Bradwell 24, 70 and 81*



*cross the site and would require temporary diversion during operations. It is envisaged that footpaths would be upgraded to Bridleways (i.e., east to west across the site).*

These criteria will be considered throughout the report.

#### Other infrastructure

MLP Policy DM3 (Primary processing plant), in summary, permits proposals for primary processing plant where it would be located within the mineral site's boundary and would not have impact on the surroundings. It also states that imported minerals will only be acceptable where there are exceptional circumstances.

It is noted that the processing plant is already in place and is within the mineral site's boundary and would be used for the processing of minerals extraction from the site in line with specific requirements of the MLP in relation to sites A3 and A4. There is no importation of primary aggregate to the primary processing plant and is considered to comply with MLP Policy DM3.

MLP Policy DM4 (Secondary processing plant) in summary states, inter-alia, that proposals for the secondary processing and/or treatment of minerals will only be permitted where there would be no unacceptable impact on amenity, the environment, or the road network. Non-indigenous sources of minerals will only be allowable in exceptional circumstances and permission will only be granted for a temporary duration.

Three types of secondary processing plant are proposed to remain at the site, namely the dry silo mortar (DSM) plant, the concrete batching plant and the bagging plant. The importation of cement, additives and crushed and non-indigenous material is already permitted, however the quantities are relatively small and are currently limited by condition. The importation allows the secondary processing plant to provide a full range of products to customers. It is considered that the plant and importation of materials has been to date undertaken without adverse impact and therefore there is no reason to withhold their retention or prevent importation at the same level for the life of the mineral operation. The secondary plant is considered to be in accordance with MLP policy DM4.

The retention of both primary and secondary plant is considered acceptable subject to imposition of existing conditions controlling the plant.

The use of the existing on site plant for processing of materials from Sites A3 and A4 meets the identified requirements of the MLP with respect to Bradwell Quarry.

#### Sustainable development

MLP Policy S1 (Presumption in favour of sustainable development) and CFR Policy SD1 (Sustainable development locations) reflect the presumption in favour of sustainable development put forward by the NPPF.

The NPPF states that there are 3 dimensions to sustainable development:

economic, social and environmental. It goes on to state, in summary, that these roles should not be undertaken in isolation but should be sought jointly and simultaneously through the planning system.

The applicant has stated that the application site provides an integrated facility supplying a wide range of construction materials from a single sustainable location. The site contains a particularly high stone content, such that stone is not required to be imported for the ready mix concrete plant. In addition the reserve is low in silt.

The site provides direct employment for 45 people and indirectly through its sales, maintenance and support contracts.

The continuation of the existing operations and extension of the quarry would secure these employment opportunities and wider socio-economic benefits into the future.

The site would be well placed to provide aggregate for both growth in Braintree and Colchester. This would assist with the provision of a supply of housing required to meet the needs of the present and future generations, as well as the creation of a high quality built environment, all of which have economic and social benefits.

Bradwell Quarry currently has permitted reserves to last until the end of 2014, the current proposals would ensure the continued operation of the quarry for a further 3 years, ensuring supply of existing customers and employment of quarry staff.

It is therefore considered that the proposal would fulfil the economic and social dimensions of the NPPF. The environmental dimension will be considered further throughout the report.

## **B LANDSCAPE AND VISUAL IMPACT**

MLP Policy DM1 (Development Management criteria), in summary, requires no unacceptable impact on public open space and the appearance, quality and character of the landscape, countryside and visual environment.

BCS policy CS5 seeks to protect the countryside, by locating development within town boundaries except uses appropriate to the countryside, in order to protect and enhance the landscape character of the countryside.

BDLP policy RLP 80 seeks amongst other matters to require assessment the impact of development on landscape including trees, hedges, woodlands, grassland, ponds and rivers. In addition all development is expected to provide mitigation and provide planting to maintain and enhance the landscape.

BDLP policy RLP 81 seeks to retain and maintain trees, woodlands, grassland and hedgerows.

MLP Policy S12 (Mineral site restoration and afteruse), in summary, permits

mineral development if it can be demonstrated that the land is capable of being restored at the earliest opportunity to a beneficial afteruse. It requires progressive restoration, restoration at low level as a first preference, and an aftercare period of not less than 5 years.

The existing plant area is contained within established screening bunds and vegetation such that the site is only visible from users of the public right of way, but this view is only transient and the impact would not be increased by the proposals, but extended for a longer period.

Site A3 and site A4 include existing hedgerows and hedgerow trees and these would be lost as part of the proposals. However the restoration proposals include replacement hedgerows and hedgerow trees as well as additional copses of woods in the corner of the restored agricultural fields. Vegetation along Cuthedge Lane on the northern boundary of the site would be retained and protected and screening bunds are proposed around the boundary of the site to screen views from Cuthedge Lane and properties along this lane. The County's landscape officer has requested conditions with respect to landscaping and conditions could be imposed to require submission of planting details with respect to planting details and maintenance of proposed hedgerows, hedgerow trees and woodland planting

Sites A3 and A4 would be worked progressively and would be restored to original levels back to agriculture, with public rights of way re-established. The original levels would be achieved, by utilising surplus overburden from creating an enlarged New Field Lagoon and softening a plateau which was previously to be retained. Steeper slopes would be planted with woodland, with other areas restored to grassland and open mosaic habitat.

The EIA assessment concludes that the proposals would have low adverse impact on the landscape during the operations and negligible to positive impacts upon restoration.

In terms of visual impact, the views most affected are those from Herons Farm, although the buildings themselves are surrounded by existing vegetation and trees. Nonetheless a screening bund is proposed approximately 75m from the property and is proposed with a visible outer slope of 1 in 5 to minimise the impact of the bund itself. The bund would be grass-seeded. This addresses the requirements of the MLP with respect to Bradwell Quarry. In addition the haul road to the extraction would be located below natural ground levels to minimise impacts from the movements of vehicles.

The proposed screening bund along the north edge of Site A4, would screen views from Cuthedge Lane, it is likely there would be distance intermittent views of these bunds from the A120 to the north east, but the impact would be minimal. This again addresses the requirements of the MLP with respect to Bradwell Quarry. There would be some views of the extraction operations from the diverted PRoW, but these are only transient and temporary for the life of the development.

A screening bund remains adjacent to Green Pastures Bungalow on Sheepcotes

Lane, the bund has been retained for screening purposes, but once restoration operations in site A2 and R are complete, the bund would no longer be required, unless the IWMF permission is implemented. It is therefore suggested that a condition could be imposed, subject to permission being granted, requiring its removal when no longer required with respect to site A2 and R, but allowing its retention if the IWMF permission has been implemented.

If planning permission was granted the seeding and maintenance of screening bunds could also be secured by condition.

It is therefore considered, subject to the conditions above the proposals would comply with, MLP Policies DM1 and S12, the requirements of the MLP in relation to the Bradwell sites and BCS policy CS5 and BDLP policies RLP80 and 81

## C WATER ENVIRONMENT

MLP Policy DM1 (Development Management criteria), in summary, requires no unacceptable impact on quality and quantity of water within water courses, groundwater and surface as well as no impact upon drainage systems.

BDLP policy RLP 36 seeks to ensure there is no unacceptable impact from development on the water environment.

BDLP policy RLP 62 seeks to ensure sites do not give rise to pollution or the risk of pollution.

The management of both ground and surface water would continue in line with existing practices. No ground or surface water is currently discharged from the site and this would continue.

Ground water encountered within the excavation and surface water would be temporarily stored within sumps within the excavation or pumped to New Field Lagoon, where it would be used in the sand and gravel washing plant and recirculated via settlement lagoons or allowed to soak away into the ground.

New Field Lagoon, a restoration water feature of the permitted restoration scheme for the quarry, would be extended in capacity from 250,000m<sup>3</sup> to 700,000m<sup>3</sup>. The enlarged lagoon would ensure security of supply of water to the quarry in the medium-term as well as creating biodiversity habitats in the long-term.

The Environment Agency has not objected to the application. It notes the application proposes monitoring and investigation of the potential for the workings to impact upon water levels within Curd Hall (Listed Building) pond. Groundwater monitoring within the site could be required by condition and investigation and mitigation (if necessary) at Curd Hall could be secured through a planning obligation.

In addition conditions could be imposed with respect to the control of storage of oils, chemicals and fuels and a watching brief for any contamination on the site,

which might have been left by its previous airfield use, with requirement for investigation and mitigation if necessary.

No flooding issues have been identified as part of the assessment of the proposals.

Subject to the imposition of the above conditions and legal obligation as described above it is considered that the proposed development would comply with MLP policy DM1 and BDLP policies RLP 36 and RLP 62.

## NOISE AND DUST

MLP Policy S10 (Protecting and enhancing the environment and local amenity), in summary, requires that consideration is given to public health and safety, amenity and quality of life of nearby communities (among other requirements), that appropriate mitigation measures are included, that no unacceptable impacts would arise and that opportunities have been taken to improve/enhance the environment and amenity.

MLP Policy DM1, in summary, requires there should be no unacceptable impact on local amenity.

BDLP policy RLP 36 seeks to ensure there is no unacceptable impact resulting from noise and dust, policy and RLP 62 protects the environment from pollution with respect to air, water and land and requiring preventative measures.

Noise: The application is accompanied by a noise assessment that demonstrates that the proposals could be operated in accordance with the existing maximum noise levels set for surrounding properties. Additional clarification was required by the County's noise consultant with respect to noise levels in close proximity to the properties on Cuthedge Lane and this additional information has been provided.

In order to remain within existing noise limits, it is proposed within the application to form a screen bund between the extraction and Heron's Farm and it also proposed that when operations are within 100 and 150m it would be necessary to minimise the amount of plant operating in this zone to ensure maximum noise levels are complied with. Such restrictions could be controlled by condition and monitoring required to ensure compliance.

With respect to Deeks Cottage and Haywards (unoccupied), these properties are in the control of the applicant and the occupants of Deeks Cottage have chosen to vacate the property when the extraction is in close proximity. In order to minimise the period the occupants are required to be away from their home, in the same way limited plant would be used in close proximity to Heron's Farm similar restrictions would be required when operations are close to Deeks Cottage, likely to be necessary when operations are between 100 and 300m from the property. Subject to a legal obligation requiring Deeks Cottage and Haywards to be vacated when maximum noise levels cannot be achieved and conditions setting maximum noise limits for operations and temporary operations and regular site monitoring to show compliance, and conditions to limit the number and nature of plant working in close



proximity to Heron's Farm, Deeks Cottage and Haywards the County's noise consultant has no objection to the proposals.

Dust: There is potential for dust during soil stripping operations, but initial stripped soils would be used to form screening bunds to Heron's Farm and Cuthedge Lane. Dust tends to carry not more 100m and stand-offs of this distance are proposed to Heron's Farm, Deeks Cottage and Hayward when they are occupied. Best practice dust suppression measures are proposed, including damping of haul roads and conditions could be imposed to secure these controls.

It is considered subject to the conditions and obligation described above the proposals would not give rise to adverse impact from noise and dust and are in accordance with MLP Policies S10 and DM1 and BDLPR policies RLP 36 and RLP 62.

## E TRAFFIC, HIGHWAYS & PUBLIC RIGHTS OF WAY

Paragraph 32 of the NPPF states, in summary, that applications for development should be supported by a Transport Statement or Transport Assessment. Decisions should take account of whether opportunities for sustainable transport modes have been taken up, safe and suitable access to the site can be achieved for all people, and whether improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

MLP Policy S11 (Access and transportation), in summary, permits minerals development where it would not have unacceptable impacts on the efficiency and effective operation of the road network. It permits transportation by HGVs where the road network is (or can be made) suitable.

BDLP policy RLP 36 seeks amongst other matter to prevent unacceptable impact from traffic congestion.

The access to the quarry is a purpose built junction onto the A120 Trunk Road with a right turning lane and it is proposed that traffic would utilise this access and the applicant was supported by a Transport Statement such that the specific requirements set out in the LP with respect to Bradwell Quarry have been addressed. The Highways Agency has raised no objection to the proposals and did not require a full Traffic Impact Assessment. Concern has been raised by consultees as to the congestion that would be caused on the A120, particularly from the combination of the proposed mineral traffic with the IWMF traffic. At the time of IWMF application the quarry was operational and traffic impacts were assessed based on the IWMF and the quarry being operational at the same time, the Highways Agency raised no objection to IWMF application.

Without out an objection from the Highways Agency there is no justification for refusal of the proposals on highway safety and capacity grounds.

However, it is considered appropriate to ensure that HGV movements do not rise above those on which the acceptability of the proposal has been assessed and therefore conditions limiting HGV movements could be imposed if planning permission is granted, controlling the maximum daily HGV movements to those proposed i.e. 590 per day and average daily HGV movements to 458 per day (when averaged over the year).

ECC as Highway Authority is responsible for the two crossings on Church Road and Ash Lane by the private access road. The Highway Authority has raised no objection to the proposals subject to conditions and obligations requiring that all access to the site is gained from the A120. Signage and measures, including bollards required as part of the development of site A2 are in place on Church Road and Ash Lane to prevent access from these two crossing points, the measures would prevent HGV's accessing from the crossing points.

There remains an issue, despite signage, that some public use the A120 access and private haul road route rather than the junction in Bradwell itself accessing/exiting the haul road at the crossing points. The provision of further constraints/bollards at the crossings is not possible without jeopardising the safety of users of Ash Lane and Church Road, and would detract from the visual appearance of Ash Lane which is a Protected Lane. It is considered that the operator has done all that is reasonable to prevent access by the public, but conditions/obligations could be imposed to ensure retention and maintenance of the signage and bollards, subject to such conditions to retain and maintain the existing measures it is considered the operator has satisfied the requirements of the MLP for Bradwell Quarry with respect to these crossing points.

It is acknowledged that while the vast majority of all traffic accessing the site is via the A120 i.e. all traffic importing and exporting minerals and mineral products and staff and maintenance of the processing plant area, currently there are 28 movements (14 in and 14 out) of cars and vans and on average 2 HGV movements (1 in 1 out) every 3 to 4 weeks via Woodhouse Lane to the south of the site. Concern has been raised in respect of this use. The earth moving contractors' compound for the current extraction is located south of site A2 on an area of the old runway. Staff and maintenance vans associated with the earth moving contract access this compound from the south via Woodhouse Lane. The Highway Authority has considered these movements and requires that all movements associated with the quarry should be via the A120 access and internal haul roads. The operator has been advised to cease use of Woodhouse Lane for any traffic associated with the quarry upon implementation of the planning permission, if granted.

It is considered, subject to the conditions and obligations described above the application would not give rise to adverse highway impacts and would be in conformity with MLP policies S10 and DM1 and the NPPF and BDLP policy RLP 36.

Removal of the access onto the A120 and private haul road: The restoration proposals for the application site include the removal of the A120 access and

private haul road. However, the WLP envisaged access to the preferred site WM1 from the A120 via the existing access track and the IWMF planning permission permits the retention and use of the access and haul road. It is therefore considered that it would be appropriate to require by a legal obligation the removal and restoration of the junction onto the A120 and access road, only if no longer required in association with development at Preferred waste site WM1, the IWMF or any future mineral development. The applicant has indicated willingness to enter into such an obligation. Such an obligation would meet the specific issues identified in the MLP with respect to Bradwell Quarry.

Public Rights Of Way: MLP Policy S11 requires no unacceptable impact on the Public Rights of Way network.

Concern has been raised by local parishes as to the impact of the proposals on public right of ways that cross the quarry.

It is acknowledged that PRoWs would require diversion during extraction and restoration of site A3 and A4 and alternative routes around the edge of the extraction area have been proposed to maintain the north-south links that the existing PRoW provide. The proposals include reinstatement of these PRoWs onto their original routes and also proposes enhancements including the extension of PRoW Bradwell 24 which currently has a dead end, which would be extended to link with PRoW Bradwell 55. A bridleway link from Sheepcotes Lane to Pantlings was provided as part of Site A2 planning permission, but currently requires a detour north to make the link; the current application proposes a new section of bridleway to avoid the need for this northern detour. There are also some anomalies with respect to the public rights of way crossing the haul road, namely the definitive routes are not the routes on the ground used by the public and these would also be addressed. All necessary temporary diversions and permanent enhancements could be secured through a planning obligation if planning permission was granted.

It is considered the provision of the alternative routes and enhancements ensure the proposals meet with the specific issues identified in the MLP for Bradwell sites A3 and A4 and that the proposals are in accordance with MLP policy S11 with respect to no adverse impact on PRoW.

## F HISTORIC IMPACT

MLP Policy S10 (Protecting and enhancing the environment and local amenity), in summary, requires appropriate consideration of the historic environment.

MLP Policy DM1 (Development Management Criteria), in summary, requires that the development would not have unacceptable impact on the historic environment, including heritage and archaeological assets.

BDLP policy RLP 105 and RLP 106 require archaeological evaluation and excavation and recording to ensure heritage assets are not lost. Separate legislation and the NPPF seek to protect the settings of Listed Buildings.

Listed Buildings: There are listed buildings in the vicinity of the site; the closest being Allshots Farm, but the buildings are screened from direct views by existing vegetation and the existing scrap yard, such that the setting of the listed building would be unaffected by the proposals. Other listed buildings, such as Woodhouse Farm, and those along Sheepcotes Lane are either screened by existing vegetation or at such a distance from the extraction that there would be no adverse impact upon their settings. Curd Hall lies to the north and concern has in the past been raised as to the impact of the proposals on level of the pond adjacent to the building, which could detract from the setting of the listed building. This issue is discussed in more detail within the water environment section and investigation/mitigation has been proposed as part of the application which could be secured by condition/obligations. Subject to such conditions being imposed, the setting of Curd Hall would not be harmed.

Archaeology: The ES included an archaeological assessment, which set out the results of a desk based assessment and archaeological evaluation with results of trial trenching carried out across site A3 and A4. The trenching identified areas of interest including an area of early Iron Age to medieval periods. The County's Archaeologist has raised no objection to the proposals subject to a full archaeological condition, which would require full investigation and recording of the features above and a watching brief over the remainder of the site.

It should be noted that the operator requested to commence these archaeological investigations in August 2014 following the removal of the crop, when the soils could be stripped in a dry and friable state. Subject to prior agreement of a Written Scheme of Investigation it was not considered that these investigations constituted commencement of development and soils have been stripped with an archaeologist present. Concern has been raised that these works are unlawful.

The archaeological investigations are considered permitted development, but the formation of soil storage bunds depending on the timescale they are in place are not permitted development. However, as these bunds are in accordance with the details of the current application for consideration, it was not considered expedient to require replacement of the soils at this time, but the developer has been requested to suspend stripping of the soils pending determination of the application.

Subject to the conditions and obligation set out above, it is considered the development would comply with the provisions of the NPPF, MLP Policies S10 and DM1 and the specific issues raised in the MLP in relation to Bradwell Quarry no. 4 and BDLP policy RLP 105 and RLP 106.

## G ECOLOGY

MLP Policy DM1 (Development Management criteria), in summary, permits minerals development subject to it having no unacceptable impact on the natural and geological environment, including biodiversity and ecological conditions for habitats and species.

BDLP policy RLP80 requires assessment of the impacts upon wildlife and

proposals to include mitigation, RLP81 seeks to protect existing trees and plant additional trees, and Policy RLP 84 seeks to protect “protected species” requiring full ecological assessment.

The MLP identifies specific issues to be addressed; Bradwell has been identified with the agreement of the developer to provide “significant biodiversity enhancement and habitat creation”. The developer has subsequently, as part of preparation of the Supplementary Planning Document on biodiversity, committed to provide 50 hectares restored to priority biodiversity habitats. The developer, as part of this application, has offered areas to be restored to priority habitats on a pro-rata basis for the area of extraction. This would be undertaken with further areas to be provided as part of future applications with respect to the remaining preferred and reserved sites within the MLP, which are set out within a Masterplan. Such future areas could be secured through planning obligations.

While areas of priority diversity have been offered as part of the restoration these areas have not been considered as providing mitigation or compensation for areas lost as a result of the development this has been addressed separately. Mitigation and compensation has been proposed, including such measures as avoiding bird nesting seasons with respect to removal of hedgerows and installation of bat boxes. Construction and Environmental Management and Habitat Management plans are proposed to be submitted and could be secured by condition/obligation. A licence would be required from Natural England prior to the removal of a building in A4 as it is known to contain bat roosts.

9.4 ha of priority habitats would be delivered as part of the restoration proposals including 3.5 hectares of reed bed and wet grassland around New Field Lagoon, 1.5 open mosaic habitat utilising crushed concrete substrate recovered from the broken up runways and 4.4 ha of species-rich neutral grassland. The county ecologist sort clarification of the areas where priority habitats would be delivered and additional information was submitted and addressed this matter. Details of the restoration to priority habitats could be required by condition.

The application has offered an extended period of aftercare and management of 25 years, and also if any of the new habitat areas have to be disturbed that replacement areas would also be subject to a further 25 years of management. In addition an obligation is offered to provide funding for the management either through an accruing fund or bond to ensure funds are available for the full 25 year period.

It is therefore considered that, subject to the imposition of suitable conditions and obligations to secure the proposed mitigation, compensation and enhancement and long-term mitigation, the proposed development would not have unacceptable impact on ecology and could provide a positive impact delivering areas of priority habitat, in compliance with MLP Policies DM1 and S10, the MLP specific requirements with respect to the Bradwell sites and BDLP policies RLP80, RLP81 and RLP84.



MLP policy DM1 seeks to minimise impact upon soil resources and upon best and most versatile agricultural land. BDCS policy CS8 also seeks to protect best and most versatile land.

The extraction operations in A3 and A4 would result in the temporary loss of 31 ha of agricultural land. The majority of this land is owned by a farming company with the remainder farmed by the same company under a tenancy agreement but does not form the sole income of the farming company. Upon restoration 25ha would be restored to good quality agriculture land, a loss of 6 ha within sites A3 and A4. Therefore the temporary loss and permanent loss of a small area of the agricultural land would not result in significant hardship to the tenant farming company.

The surplus soils from enlarging New Field Lagoon means the extraction areas of sites A3 and A4 can be restored to levels similar to those prior to extraction.

The smaller area restored to agricultural land under tenancy would be reduced by just over 8 hectares, being restored to different habitats. The loss of this agricultural land was assessed by the applicant not to have a significant impact upon the tenant farming company, as it was not its sole source of income.

The removal of the redundant runways and hardstandings of the airfield would mean that the reinstated agricultural areas would be more cohesive and not dissected, creating more practical manageable fields. Best practice standards have been described by the applicant for the stripping, storage and spreading of soils and these would be secured through condition, along with a requirement for 5 years of agricultural aftercare, in line with those for site "A". The proposed restoration and protection of soils is considered to meet the specific requirements set out within the MLP with respect to Bradwell Quarry.

While the proposal would result in the loss agricultural land, the enhancements to biodiversity are considered to outweigh this loss and meet with environmental dimension of the NPPF. It is considered that subject to those conditions described above the proposal are in accordance with MLP policy DM1 and BCS policy CS8 protecting the soil resources and best and most versatile land and there would be no lasting unacceptable social or economic adverse impacts.

## I RESTORATION & AFTERUSE

MLP policy S10 seeks to protect and enhance the environment and local amenity, while policy S12 seeks to ensure restoration to "beneficial after-uses, with positive benefits to the environment, biodiversity and/or local communities" and includes provision of biodiversity gains. BCS policy CS8 seeks to create and enhance areas of biodiversity to contribute to the Essex Biodiversity Action Plan.

The MLP sets out specific requirements with respect to the Bradwell site, including the requirement of the restoration scheme not to preclude the potential development of the WLP preferred site WM1 for waste uses or the implementation of the permitted IWMP. The restoration scheme for sites R and A2 has been modified, to enable a larger lagoon to be included and to accommodate 9.4

hectares of priority habitat within the restoration scheme and provide reed bed and wet grassland habitats. These changes do not impact upon the potential for the site to be developed for the IWMF, the proposed restoration levels would not preclude the development of the IWMF and none of the proposed priority habitats are within the site area of the IWMF.

The MLP requires the first application of any of the preferred sites at Bradwell to be accompanied by a Masterplan setting out the indicative phasing for all preferred and reserved sites and an overall scheme restoration scheme of restoration delivering areas of priority habitat. The application has been submitted with a master plan, setting out the future working would be such that A5 would follow first, and as required by the MLP the coming forward of the reserved sites A6 and A7 only if the Landbank in Essex falls below 7 years. The details indicate the likely phasing within site A5, which would be in a north to south direction. In addition the location and nature of future areas of priority habitat which would be provided up to a total of 50 hectares on pro-rata basis for areas of extraction permitted. Concern has been raised by Braintree DC that a greater level of detail within the Masterplan was expected such as an assessment of the impacts on the community, transport and landscape. Such consideration of impacts could only be considered when assessed through the EIA process, when and if applications for subsequent preferred and reserved MLP sites at Bradwell Quarry are submitted. The level of detail provided is considered to meet the requirements of the MLP and the future indicative phasing and restoration of sites A5 to A7 could be secured through an obligation.

It is considered the proposed combination of restoration to agriculture and biodiversity and proposed long-term management meet the requirements of MLP policies S10 and S12 and BCS policy CS8, as well as the specific requirements of the MLP for the Bradwell quarry with respect to restoration.

## **J SOCIAL & ECONOMIC IMPACTS**

The impact upon the surrounding community and economic impacts were considered as part of the EIA process and included consideration of the points raised as part of the pre-application public consultation.

The overall conclusion was that the proposals would have a small positive economic impact as a result of the continuation of the 45 jobs provided by the quarry and the opportunities provided to local suppliers and contractors.

## **8. CONCLUSION**

MLP Policy P1 identifies the proposed sites A3 and A4 areas as preferred sites and notes that the principle of extraction has been accepted and the need for the release of mineral has been proven. This does not, therefore, require debate.

However, policies of the MLP, BCS and BDLP require that the development does not result in unacceptable environmental impact. The various environmental issues have been considered and, subject to appropriate mitigation being secured through conditions and obligations, it is considered there would be no significant

adverse impacts that warrant refusal of the proposals. Therefore the proposals would be in accordance with the specific requirements of the MLP relating to Bradwell Quarry and in particular requirements for Preferred sites A3 and A4 following policies: with respect to landscape and visual impact matters, DM1, S12, CS5, RLP 80, and RLP 81; with respect to noise and dust S10, DM1, RLP 36 and RLP 62; with respect to highways and rights of way the NPPF, S11 and RLP 36; with respect to historic environment S10, DM1, RLP 105 and RLP 106; with respect to the water environment DM1, RLP 36 and RLP 62, with respect to ecology/biodiversity DM1, RLP 80, RLP 81 and RLP 84 and with respect to restoration and aftercare S10, S12, DM1, CS8,.

Overall, it is considered that the proposals comply with the development plan, taken as a whole. Additionally, it is considered that the economic, social and environmental roles of sustainable development would be fulfilled by the proposed development. Therefore, there is a presumption in favour of the sustainable development in accordance with the provisions of the NPPF and MLP Policy S1.

## 9. RECOMMENDED

That planning permission be **granted** subject to

- i. The prior completion, within 12 months, of Legal Agreements under the Planning and Highways Acts to secure: obligations covering the following matters
  - 25 year management period for 9.4 ha of priority habitat and in the event any of the priority habitats are relocated a further 25 years of aftercare to be provided
  - Commitment to adhere to Master Plan in term of phasing and restoration, delivering 41.6ha of priority biodiversity habitat on a prorata basis if sites A5, A6 and A7 are permitted.
  - Accruing of a fund or financial bond to cover the costs of management of the priority habitats. The developer to submit a schedule of the likely costs arising over the management period
  - Deeks Cottage and Haywards not be used as residential properties whilst machinery is within 100m of the properties
  - Retention and maintenance of existing measures in the highway to prevent/discourage access onto the private access road at the crossings with Ash Lane and Church Road
  - Disciplinary measures to be enforced by the company if drivers found using minor roads and the crossing points to access the access road
  - Removal of access road if the IWMF is not implemented, or not required with respect to Waste Local Plan preferred sites or future potential mineral permissions

- Extension of PRow Bradwell 24 to PRow Bradwell 55 upon restoration of the site, creation of bridleway section to provide direct route between Sheepcotes Lane and Pantlings Lane and upgrading of footpaths to bridleway status upon completion of restoration to create a bridleway route between Sheepcotes Lane and Pantlings Lane, regularising the routes of paths crossing the haul road.
- Continuation of site liaison group
- 3 monthly monitoring of boreholes, and pond level board installation at Curd Hall (subject to owners agreement) and further investigation of potential affects of quarrying on the pond at Curd Hall and if necessary provision of mitigation measures.

ii) And conditions relating to the following matters;

1. Comm 1 commencement
2. COMM3 Compliance with submitted details and addition all relevant plans/elevations and details with respect to planning permission for the processing plant, concrete batching plant, bagging plant, dry silo mortar plant, office, weighbridge, access road and other infrastructure.
3. CESS2 Cessation of development – extraction 3 years, restoration 4 years
4. CESS3 Removal of ancillary development
5. CESS7 Revised Restoration in Event of Suspension of Operations
6. HOUR2 Hours of working
7. Sand & gravel processing plant & dry silo mortar plant– Monday to Friday 7am to 6:30pm, Saturday 7am to 1pm
8. BESPOKE Bagging unit Monday to Friday 6am to 10pm, Saturday 7am to 1pm. No export of materials after 6:30pm
9. BESPOKE No earth moving on Saturdays and Sundays
10. BESPOKE With no working at all on Saturday afternoon, Sunday, Bank and Public Holidays.
11. BESPOKE The bagging plant shall not operate between 6am and 7am and between 6.30pm and 10.00pm unless the roller shutter doors are closed
12. PROD2 Records of output
13. HIGH 2 – Vehicular access
14. BESPOKE Maintenance of signage and measures to deter access and egress to the private access road by local traffic
15. HIGH3 Surfacing/maintenance of Access Road
16. HIGH 4 Prevention of mud and debris on highway
17. HIGH 5 Vehicle movements limits
18. HIGH 6 Lorry sheeting
19. HIGH7 Pedestrian/PRow Signage
20. HIGH8 Parking areas – particularly in relation to earth moving contractors
21. HIGH9 Vehicle routing – not using local roads to get to access road
22. NSE1 Noise Limits
23. NSE2 Temporary Operations
24. NSE3 Monitoring Noise Levels

25. NSE5 White noise alarms
26. NSE6 Silencing of Plant and Machinery
27. BESPOKE constraint on nature and number of plant operating within close proximity of Heron's Farm, Deeks Cottage and Haywards.
28. VIS2 Stockpile heights
29. LGHT1 Fixed Lighting Restriction – with respect to any additional lighting
30. LGHT2 Use of Lighting Restriction
31. DUST1 Dust Suppression scheme
32. DUST3 Spraying of Haul Road
33. LAND1 Landscape Scheme
34. LAND2 Replacement Landscaping
35. TREE1 Tree Protection
36. ECO2 Provision for Translocation of Protected Species
37. ECO3 Protection of Breeding Birds
38. ECO4 Habitat Creation/Habitat Restoration Scheme prior to commencement of restoration works
39. ECO5 Habitat Management Plan & Construction and Environmental Management Plan
40. ECO7 Update of Survey before Commencement of Development
41. LS1 Limits of Excavation
42. LS4 Stripping of Top and Subsoil
43. Topsoil and soil stripping in accordance with submitted details
44. LS5 Maintenance of Bunds
45. LS6 Retention of Soils
46. LS8 Soil Handled in a Dry and Friable Condition
47. LS10 Notification of Commencement of Soil Stripping
48. LS11 Notification of Soil Placement
49. LS12 Topsoil and Subsoil Storage
50. BESPOKE The screening bund adjacent to Green pastures shall be removed prior to restoration of the site, unless planning permission ESS/37/08/BTE has been commenced. If to be retained details shall be submitted for its reshaping and planting.
51. BESPOKE Micro scale level plans for the margins of the water body known as New Field Lagoon.
52. ARC1 Advance Archaeological Investigation
53. POLL1 Surface Water Drainage
54. POLL4 Fuel/Chemical Storage
55. POLL6 Groundwater monitoring
56. POLL8 Prevention of plant and machinery pollution
57. BESPOKE In the event that contamination is found submit details of mitigation and remediation for approval
58. RES1 Stones to be Picked
59. RES4 Final Landform
60. AFT1 Agricultural Aftercare Scheme to be approved
61. BESPOKE Agricultural access route across eastern side of Site R, route to be submitted for approval within 6 months
62. MIN1 No Importation except with respect to bagging and dry silo mortar plant
63. GPDO2 Removal of PD Rights – Specific
64. BESPOKE Not less 66% of materials for the bagging plant shall be



- supplied from indigenous materials excavated at Bradwell Quarry
65. BESPOKE Air emissions and stack height in relation to the dry silo mortar plant shall be in accordance with approved details
66. BESPOKE The colour of all buildings shall be maintained grey

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## **BACKGROUND PAPERS**

Consultation replies  
Representations  
Planning Application & EIA Ref ESS/24/14/BTE

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## **THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2010**

The proposed development would not be located adjacent to a European site.

Therefore, it is considered that an Appropriate Assessment under Regulation 61 of The Conservation of Habitats and Species Regulations 2010 is not required.

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**EQUALITIES IMPACT ASSESSMENT:** This report only concerns the determination of an application for planning permission. It does however take into account any equality implications. The recommendation has been made after consideration of the application and supporting documents, the development plan, government policy and guidance, representations and all other material planning considerations as detailed in the body of the report.

## **STATEMENT OF HOW THE LOCAL AUTHORITY HAS WORKED WITH THE APPLICANT IN A POSITIVE AND PROACTIVE MANNER**

The Minerals and Waste Planning Authority has engaged with the applicant over several months prior to submission of the application, advising on the validation requirements and likely issues.

Throughout the determination of the application, the applicant has been kept informed of comments made on the application and general progress. Additionally, the applicant has been given the opportunity to address any issues with the aim of providing a timely decision.

## **LOCAL MEMBER NOTIFICATION**

BRAINTREE – Witham North

BRAINTREE – Braintree Eastern

**ESS/32/11/BTE**

**ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR:  
Bradwell Quarry, Coggeshall Road, Bradwell, Near Braintree Essex and land  
south of Bradwell Quarry on part of Rivenhall Airfield and east of Sheepcotes  
Lane (known as Site A2 in emerging MDD)  
ESS/24/14/BTE**

An Environmental Statement (ES) has been submitted with the application and examines the potential impact of the proposal on the natural and built environment and considers, where necessary, ameliorative measures to reduce and minimise that potential impact. The EIA process has been undertaken with respect to that part of the site where there are proposed changes. The application site (area edged red) includes existing areas of the quarry such as the haul road and processing area and previously worked or currently being worked areas of extraction where there would be no or little change as a result of the proposals, i.e. the assessment has assessed the impacts of extraction with A3 and A4, the proposed additional area of extraction and the reference to 'site' in the following summary of the ES is to sites A3 and A4. The assessment has been undertaken according to the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 and through the consultation process the ES has been revised as required and mitigation measures introduced either by amendments to the proposal or as suggested planning conditions. The assessment covers the following:-

Land use, geology and ground conditions;  
Groundwater;  
Ecological Impact Assessment;  
Archaeology;  
Landscape and Visual Amenity;  
Travel and Transportation;  
Dust Impact Assessment;  
Assessment of Environmental Noise;  
Social and Community Issues;  
Nuisance Impact Assessment;  
Surface Water and Flood Risk.

A summary of the potential effects assessed in the ES are set out below.

**Land Use, Geology and Ground conditions**

Land Use: The site baseline groundwater and geological conditions were collated using a number of published information. The site's historical use was as a WWII RAF and USAF air base until 1946 and then as a testing centre for Marconi Radar. Since then the hanger only has been in industrial/commercial use, with the main land use for the area being agriculture.

The impacts on the land include the removal of topsoil and overburden and would result in the loss of agricultural areas. The proposals would also require the removal of

runways and taxiways. The restoration proposals would return areas back to agricultural with the advantage that fields would not be dissected by the old airfield features. However, overall less land would be restored to agricultural land. It was concluded that there would be a minor adverse impact on agriculture. However, it was noted that the area to be restored to biodiversity would be increased and the minor adverse impact on agriculture had to be balanced against this advantage

Geology and ground conditions: The geology of the area shows that extraction would come from the Kesgrave Sand and Gravel series, which is fairly widespread in North Essex. The deposit has a high stone to sand ratio and is known to produce good quality construction aggregates.

Ground conditions could be impacted upon as disturbance from the extractions and soil movements may uncover previously unidentified contamination from historical land use operations as an airfield. This was considered as a slight to adverse impact.

Mitigation measures: Measures for mitigation include the monitoring and management of the topsoil, subsoil and overburden storage, thus reducing the potential for contamination. Methods would include the limit of exposure of soils and regular checks with the protocol for all work to cease if evidence is found. In this event, the area would be assessed and all parties, including Environmental Agency and Local Planning Authority would be contacted and a decision would be made regarding the short and long term future of the site. Any spills or leaks from operations during the site activity would be mitigated. For example vehicle would be maintained and inspected, fuels stored correctly and materials labelled. Effluent would be recycled and sewages and waste would be appropriately disposed of or stored.

#### Comments

The loss of agricultural land is not considered significant, but conditions would be imposed with respect to soil handling, soil storage and agricultural aftercare to ensure areas restored to agriculture are restored in accordance with best practice. With respect to contamination, no evidence has been found of contamination with respect to previous uses of the land, but conditions would be imposed such that if contamination was found the matter would be addressed appropriately. A standard condition with respect to storage of fuels and oils would be imposed to minimise contamination from on site activities.

#### **Groundwater**

Existing evidence would indicate that ground water is on average at about 34M AOD and the quality is generally within drinking water standards. The majority of the sand and gravels lie above the water table, but some dewatering would be necessary to work all the deposit which could have an impact on groundwater levels. The radius of influence is likely to be 300m from site which is assessed as slight adverse. Such impact would only be temporary until restoration.

The impact of the development on water quality is likely to be slight adverse, being potentially caused by previous airfield use or arising from use of oils and fuels, but prevented measures would be taken and regular monitoring of groundwater quality undertaken throughout the life of the site. A watching brief approach would be taken

with respect to contamination from the airfield and if material identified further investigation undertake

Due to the thickness of superficial deposits it is unlikely there is hydraulic connectivity between groundwater and overlying surface water features. The amount of sand and gravel to be removed is unlikely to change the hydraulic conductivity significantly that it would affect recharge of rivers via base flow. Groundwater monitoring would be undertaken through the development

EA raised concern as to potential for connectivity of Curd Hall pond with groundwater, who's levels have varied since quarrying commenced at Bradwell Quarry, the ES comments that in view of past quarrying which has been closer it is unlikely that the quarry would have an impact, but monitoring would be undertaken and monitoring results used to establish whether there is any connectivity

Overall it is assessed there would be neutral or minor impact upon groundwater.

The cumulative impacts of quarrying at the quarry have been assessed and it is assessed that the impact upon groundwater, levels, flows and quality is slight to negligible.

Comments: Conditions would be imposed to protect groundwater from contamination from the operations and require on site groundwater monitoring and an obligation required to secure investigation and mitigation if necessary of any impact upon Curd Hall pond.

### **Ecological Impact assessment**

The site contains no internationally, nationally or locally designated sites of nature conservation interest. However, six Local Wildlife Sites (LWS) do exist in the vicinity but only the access road passes through a LWS, the Blackwater Plantation West. This is in use currently and would not be changed and so there would be no additional impact.

Bradwell Quarry has an existing pond, woodland planting and grassland and these would not be affected by operational activities and restoration of sites A3 and A4. Site R has habitats of low nature conservation values the western end as been restored to arable and the rest is disturbed and in the process of restoration.

A3 and A4 are largely in arable use and include hedges and dry ditches. The ecological survey included assessment of all hedgerows on or adjacent to site A3 and A4 the vegetation/ecological habitats types within sites A3 and A4. Surveys were also undertaken for badger, bats, breeding bird survey, Great Crested Newts and terrestrial invertebrate.

3 features of ecological value were identified, species rich hedgerows, Farmland BAP species and Bats and Bat habitat all considered of local importance only. A construction and environmental management plan (CEMP) and Habitat Management Plan (HMP) are proposed. Mitigation includes undertaking certain operations outside bird nesting season and removal of the building will necessitate a licence from Natural England due to the presence of bats. Bat boxes outside the site would be put in place.

Consideration was also given to the cumulative impacts of previous mineral workings and if the IWMF were implemented. Taking account of compensation and enhancement measures associated with these developments, particularly the provision of areas of priority habitat the cumulative changes to the valued ecological features were concluded to be positive.

#### Comments

The proposed CEMP and HMP and long-term management and retention of priority habitats could be secured through condition and obligations.

### **Archaeology**

There are no Schedule Monuments or other formally designated archaeological sites within, or adjacent to the site. Trial trenching of the site has identified areas of interest, with a particular area of interest in Phase 1 of early Iron Age and medieval periods.

The proposals would result in the unavoidable loss of the archaeological resources that are present, except certain margins.

The potential for general environmental remains has been assessed as low, with discrete features having a medium potential.

Mitigation Methods include 'Preservation by record', monitoring and recording all soils during soil movement and excavations and further investigation of areas of interest identified.

#### Comments

A condition requiring submission of a WSI and carrying out of investigations prior to extraction in each phase would be required.

### **Landscape and visual Impact**

#### Landscape

The site lies within the Suffolk and North Essex Clayland landscape character area, as defined by Natural England. The site is part of the former Rivenhall airfield, the majority of the extraction area in agricultural use crossed in part by the redundant runways. The site is on top of a plateau that rises up from the Blackwater to the north, dominated by the existing quarry workings.

The proposals would result in the loss of hedgerow and trees, but none are subject of TPOs and a temporary change of land use. Some detracting features would be lost parts of the old runway and past infrastructure. Bunding would be required along the boundaries of site A3 and A4.

The scale of predicted landscape impact on the immediate surroundings was assessed as low adverse, during extraction and upon restoration negligible beneficial. Although trees and agricultural land would be lost, upon restoration, the overall area of native trees and shrubs would increase along with addition of new hedgerows and species rich neutral grassland. There would be a reduction in agricultural land.

### Visual Impact

Nine receptors were identified as having views of site A3 and A4, these included listed buildings (LB) as follows: Woodhouse Farm (LB); Allshots Farm (LB) & scrap yard; Gosling's Farm, cottages, Barn; Heron's Farm; Deeks Cottage, Hayward;, Scrip's Farm; Monks Farm.. In addition views from PRow and further afield properties were considered. The properties on Cuthedge lane would be most impacted upon. The impact on Heron's Farm would be moderate adverse and this impact has been minimised by the proposed screening bund, while Deeks Cottage and Haywards would be vacated during the operations.

It was also assessed there would be moderate and substantial impact upon PRow s.

Overall the proposals were assessed to have slight adverse taking account of the screening bunds and that the site would be restored to near natural pre-existing levels. In addition the restoration includes restoration back to agriculture with additional areas of woodland planting, hedgerows and priority habitats, such that in time they would be a slight beneficial impact.

Cumulative impact has been assessed including Site R A2 and the former workings of Coggeshall Quarry. Due to the flat nature of the site, the proposed screening bunds would screen the extraction well, such that it is perceived as a single operation within the existing larger site. In the long term the development would result in agricultural land, but restoration would create new landscape features and areas of nature conservation value.

### **Transport Statement**

The site would use the existing Access Road currently being used by the Bradwell Quarry. Vehicular traffic would not increase as a result of the proposals but a continuation of the existing traffic levels. The EIA included a Transport Statement. The statement looked at the following matters:-

- The existing infrastructure, including junction with A120, haul road and crossing points with Church Road and Ash Lane and its ability to cope with the proposed traffic.

The level of traffic is not proposed to increase but be a continuation of the existing permitted vehicle numbers. The A120 junction was constructed to appropriate standards in 2001 and improvements have been undertaken to the crossing since 2011 in accordance with the last minerals permission to further limit use of the crossing points as entry points to the haul road and signage to discourage the use of the private haul road by unauthorised vehicles.

- Accident data between 2006 and 2013 has been reviewed. One accident classed as serious occurred when an unauthorised private vehicle was turning from the haul road onto Church Road and it was recorded that the driver was driving carelessly/recklessly. No other accidents recorded in the vicinity were as a result of the quarry operations.

- Alternatives modes of transport. The nature of the business means alternative modes of transport for the mineral are not practical. There is a bus service that would enable staff to use public transport, but it is acknowledge staff are likely to prefer to come by private car. Current levels of staff mean that a Travel Plan is not required.
- Compliance with planning policy with respect to highways and transport, requirements of the MLP2014 are considered to be addressed by the proposals.
- The cumulative impact of the proposals at the same time as the implementation and operation of the IW MF, which would use the same access. It was demonstrated that the A120 access would operate acceptability in capacity terms. It was noted that the crossing points with Church Road and Ash Lane are subject to further improvements if the IW MF were implemented,
- It was noted that public rights of way would require temporary diversion.

The overall conclusion was that the proposals would not have an adverse impact on the highway or transportation.

#### Comments

Conditions would be imposed to ensure vehicle movements remain at the proposed level and for existing bollards and signage with respect to use of the haul road and constraining the unauthorised access/egress of the haul road from Church Road and Ash Lane being retained and maintained.

#### **Air Quality (Dust)**

Whilst dust is unlikely to be produced by the excavation itself or aggregate processing, there may be some airborne dust during soil stripping. The main likelihood of dust arising would be through the tracking of plant and equipment on unsurfaced areas, but subject to windspeed and direction this would be very localised.

Based on the prevailing winds (from the SW) and the proximity of properties it was considered the most likely properties to be affected would be Woodhouse Farm Cottage unoccupied, Deeks Cottage and Haywards. Deeks Cottage and Haywards would not be occupied when operations are closer than 100m. Heron's Farm has a stand-off 100m through the operation, with these stand-offs the impact from dust would be minimal.

Dust management is current implemented at the quarry and would continue including haul roads to be made from reject aggregates to reduce dust release from tyres after leaving the Site, vehicle speed restrictions, sheeting of vehicles, minimise stock pile surface areas and dampening of all dusty activities along haul roads and access roads especially.

#### Comments

Appropriate conditions could be imposed to secure the proposed mitigation.

#### **Noise**

Background noise levels were measured at five representative noise sensitive locations selected as they represent the closest properties to the proposed development Heron's Farm, Haywards, The Lodge (Allshots Farm). Noise level predictions have been made at these 5 noise sensitive locations around the quarry and are based on worst case scenarios, when operations are closest and at greatest height to sensitive properties. The predictions showed that the existing noise limits would be exceeded at Heron's Farm and Haywards and Deeks Cottage. Predicted noise levels at Heron's indicated that the existing noise limits would be exceeded by 2 dB(A) and thus working within 150m of the house has been proposed subject to restrictions on the amount of plant operational near the house, which could be secured through condition. A similar condition would be required would be restricted Haywards and Deeks cottage are to be vacant when activities give rise to unacceptable noise levels likely to be when unrestricted noise operations are within 300m of the properties.

There is no intention of expanding, altering or modifying the current washing and screening plant capacity so potential impacts from noise would be largely unchanged. The predictions took into account the mitigating measures proposed, mineral plant operating below natural ground levels and creating bunds screening the site appropriately, and those that are currently in place for the Bradwell Quarry.

The cumulative impact of the construction and operation of the IWMF has been considered. Assessment has demonstrated that the operation of sites A3 and A4 would be possible within the noise limit of 60dB<sub>L<sub>Aeq 1h</sub></sub> set during construction for the IWMF. While operation of the IWMF at the same time as A3 and A4 is unlikely it has been considered, but as noise levels for the operation of the IWMF are 10dB(A) below the lowest quarry noise limit, therefore would be no cumulative impact of noise if both were to be operational at the same time. In addition a Construction and Environmental Management plan is required for the IWMF.

#### Comments

Appropriate conditions could be imposed to secure the proposed mitigation, impose maximum noise levels and require noise monitoring to show compliance.

### **Social economic Impacts**

A review of local and district priorities were undertaken, including review of local planning documents. The assessment also includes feedback from the pre-application public consultation. The Site is seen not to have significant impacts on the local community wellbeing from emissions, odours and other environmental nuisances. Health and safety issues for the employees and the public would be managed to a minimum through implementation of procedures and environmental monitoring. Extending the longevity of extraction on the Site would provide positive economic development with the continued employment of 45 people and continue to provide opportunities for local contractors and suppliers during the different stages of site development. Overall the site would provide a slight benefit to the area, and once restoration is completed would enhance the local environment by means of provisions for biodiversity, climate change (storage for surface water) and public rights of way.

#### Comments



None

## **Nuisance & Amenity Issues**

Nuisance was assessed using the 'source-pathway-receptor' methodology and hypothesises that if any one of the stages were not considered significant then a nuisance would not be present. Only odours from topsoil/subsoil storage and debris and dust from vehicle movements were considered a nuisance. Both cases were not considered significant if mitigation methods were carried out as proposed. Light pollution is not considered a nuisance, as operation hours and the rural location greatly reduce the impacts.

### Comments

None

## **Surface Water and Flood Risk**

The site lies on a plateau surrounded by undulating topography and gentle valleys. The site resides in the watersheds between two 'main' rivers, the River Brain to the south west and the River Blackwater to the north. New Field Lagoon permitted as part of the current operations is to be enlarged (250,000 to 700,000m<sup>3</sup> would be used to manage ground and surface water runoff, with no discharge to the local environment in either storage or filling. Flood risk is considered minimal (1 in 1000 year flood risk) due to the plateau character of the topography.

The impacts on the area from surface water are considered negligible due to the topography and the management of surface water to flow, by pumping, into the New Field Lagoon. Excess water would be allowed to drain and discharge naturally into the sand and gravel strata. Groundwater is present in the hollows between the sand and gravel and clay surface, but would not be replenished due to the impermeability of the clay. Any groundwater that is encountered would be stored in temporary sumps within the site boundary, pumped into the New Field Lagoon or allowed to percolate naturally into the river basins, aided by the advantageous topography. As a result, groundwater is considered to be a negligible impact.

The restored contours mean surface water would all be directed to New Field Lagoon. The enlarged New Field Lagoon has been demonstrated to be large enough to handle an extreme rainfall event. The existing operations and site would allow passive surface water management on a yearly basis, coupled with the topographies' ability to store extreme rainfall events the impacts of surface water flooding are considered negligible.

Due to the negligible impacts of the surface water, mitigation is not considered necessary and consequently cumulative surface water impacts are also negligible.

### Comments

Management of surface water would be required by condition. Under drainage for agricultural areas would be required as part of agricultural aftercare.