7. Proposed minerals sites

7.1 The following inset maps show the proposed sites for sand and gravel extraction. For each site, relevant background information is provided for the benefit of potential applicants and the local community.
8. Barham

Proposed development

8.1 The proposed developments represent modest extensions to the existing long-standing sand and gravel quarrying operations at Sandy Lane, Barham, which is operated by Brett.

8.2 Currently sand and gravel is extracted and transported to the processing area at nearby Shrubland Quarry. Restoration would entail the importation of inert fill materials but would need to maintain access to the geological deposits that the SSSI is noted for.

8.3 The established road access uses Sandy Lane, the C445 and the C492 (the old A45) to reach the access to Shrubland Quarry. None of these roads are part of the Suffolk Lorry Route Network. The route to Shrubland Quarry passes many residential properties.

8.4 These sites were previously included in the Suffolk Minerals Specific Site Allocations DPD, but no planning application was received due to the prevailing economic conditions.

Geology

8.5 The supporting geological evidence indicates that a total extractable resource of 0.600 Mt is contained within the site that covers 6.858 ha. The deposit is similar to the existing workings being mainly sand.

Development Plan and planning applications

8.6 Babergh District Council and Mid Suffolk District Council are currently preparing a joint local plan. Proposals for housing may be included close to the southeast of the existing site on agricultural land and along Sandy Lane. Housing developers are advised that they should provide adequate mitigation in respect of the permitted sand and gravel quarry (which is likely to be sufficient for the proposed extension areas).

Highways

8.7 Hedgerow vegetation must be maintained so that it is kept clear of the visibility splay both where the access joins Sandy Lane and where Sandy Lane meets Norwich Road.

Landscape

8.8 Working and restoration proposals should take into account the potential impacts on the wider landscape.
Historic Buildings

8.9 The Grade 1 listed medieval church of St Mary lies approximately 350m SE. Shrublands Park which is Registered Park and Garden and is also on the Heritage at Risk Register lies approximately 250m NW. There is considered to be no impact upon the setting of either feature.

Archaeology

8.10 The site has an extremely high potential for heritage assets with archaeological interest relating to a wide range of periods. Evidence for occupation of later prehistoric, Roman, Anglo-Saxon and Medieval date is recorded from the vicinity, derived principally from artefact scatters, including possible burial of Anglo-Saxon date (BRH 016).

8.11 Previous archaeological investigations undertaken ahead of the current phases of extraction, have identified settlement remains of Bronze-Age (BRH 015, BRH 043), Iron-Age (BRH 013, BRH015, BRH 024, BRH 043) and Roman (BRH 015, BRH 019, BRH 043) date.

8.12 The County Historic Environment Record (HER) also records that over many years’ human skeletons and pottery have been recovered from the gravel workings immediately west of the proposed extensions. These burials are likely to be medieval, and Anglo-Saxon in date (BRH 009).

8.13 Of particular note is the high potential for faunal, environmental and possible artefactual remains of Palaeolithic date, associated with an intact palaeosol (‘fossil’ soil horizon) considered to have a composite origin dating from both the Cromerian and early Anglican stages (SSSI. Sandy pit, Barham).

8.14 There is a WWII pill box in the SW corner of the existing site which should be preserved.

8.15 An archaeological field evaluation, and deposit modelling for Palaeolithic potential will be required at an appropriate stage prior to the granting of any planning permission to allow for preservation in situ, where appropriate, of any sites of importance that might be defined (and which are currently unknown) and to allow archaeological preservation or mitigation strategies to be designed. Changes to the way the site is worked may be required to ensure that the Palaeolithic potential is properly managed and recorded.
Ecology

8.16 Potential impacts upon nature conservation interest including Sandy Lane Pit, Barham geological SSSI, The Oak Wood/Broomwalk Covert County Wildlife Site, the underlying Groundwater Source Protection Zone and protected species including Otters, Bats and Great Crested Newts need to be adequately assessed and where necessary mitigation proposed.

Air Quality

8.17 The extensions are both currently agricultural land. It is anticipated that operations would commence on site in 2020 and be operational for 11 years.

8.18 Air Quality near the site is currently good; there are no Air Quality Management Area declared by Mid Suffolk District Council (the closest AQMAs are over 6km south, within Ipswich).

8.19 There are three properties within 250m of the extension site boundaries, including two residential properties (Barham Lodge and Nursery Wood Lodge, both >200m) and another to the south which appears to be an agriculture related property (approx. 115m).

8.20 The SSSI is almost entirely encompassed within the boundary of the existing Barham Quarry boundary. The APIS database has not identified any sensitive features associated with this SSSI. There are no other statutory habitat sites within 250m of the proposed extensions.

8.21 There is a risk of cumulative impacts where extraction activities coincide with activities on the existing quarry site.

8.22 It is expected that an air quality assessment would be submitted with the planning application for the extensions which considers the potential impacts of increased dust and pollutant concentration associated with the extraction process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the sites to minimise the identified risk of impacts at the identified properties.

Noise

8.23 Assuming standard mitigation measures such as the use of earth screening bunds as barriers, no other mitigation measures are required.

Public Rights of Way

8.24 Footpaths run along and across the quarry access route but there have been no conflicts reported in the past.
Floods

8.25 Proposals need to consider the potential implications for ground water resources and controlled waters.

Policy MS1: Barham

Development will be acceptable so long as the proposals, adequately address the following:

a) the cutting of vegetation within the visibility splay where the quarry access joins Sandy Lane and where Sandy Lane joins Norwich Road;
b) the impact of the proposals upon the boundary vegetation and the wider Special Landscape Area;
c) the provision of an archaeological field evaluation and deposit modelling for Palaeolithic potential at depth;
d) potential impacts upon natural history interests including Sandy Lane Pit Barham SSSI, the Oak Wood/Broomwalk Covert County Wildlife Site, and protected species including Otters, Bats, Great Crested Newts, Turtle Dove and Nightingale;
e) future access to Sandy Lane Pit Barham geological SSSI;
f) the provision of an air quality assessment which considers the potential impacts of increased dust and pollutant concentration associated with the extraction and infilling process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the risk at residential properties within 250m;
g) the provision of measures to mitigate noise;
h) the shared use of the public footpath which also forms the quarry access;
i) the implications for the underlying groundwater source protection zone and controlled waters; and
j) the potential impact upon the settings of the Grade I listed medieval church of St Mary and Shrublands Park.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
9. Barnham

Proposed development

9.1 This is a proposed extension to an existing quarry that was originally granted planning permission to supply the construction of the A11 Elveden bypass. Although the soils were stripped from the surface and formed into a screening bund the sand and gravel were not required for the A11 construction.

9.2 The proposal is to work the area surrounding of the existing quarry. Working would be seasonal as with the existing planning permission and avoid the Stone Curlew nesting season. The intention is to import inert materials to aid restoration.

9.3 The proposed access to the site would utilize the existing permitted dump truck haul route which is 7km in length across farmland to Contract Farm. This would include the need for a signalised junction where the haul route crosses the B1106. From Contract Farm road going lorries would travel a short length of the former A11 which is now a private road until the lorries reach the B1106 and the wider highways network including the adjacent A11.

9.4 The B1106 is classified as a Local Access Lorry Route and the A11 as a Strategic Lorry Route in the Suffolk Lorry Route Network. Between Contract Farm and the B1106 the lorries would pass Elveden Church of England Primary School. The route would be reversed to bring in inert fill materials.

Geology

9.5 The supporting geological evidence estimates a total resource of 2.570 Mt of sand and gravel within the site that covers 89,800 ha. Boreholes drilled in 1989 across parts of the site show an overall grading of 30% stone, 62% sand and 8% silt.

Development Plan and planning applications

9.6 The proposed development straddles both Forest Heath District Council and St Edmundsbury District Council Areas.

9.7 There are no adopted or draft plan proposals or planning applications which conflict with the proposed developments.

Highways

9.8 A safe crossing of the B1106 for dump trucks needs to be maintained as well as appropriate traffic management around school.
Landscape

9.9 The site is located within a Special Landscape Area and suitable proposals for mitigation during working and restoration would be required.

Historic Buildings

9.10 There are a number of historic buildings associated with the Barnham Atomic Bomb Store which is a Scheduled Monument and Barnham Camp.

Archaeology

9.11 The Breckland landscape, particularly along river valleys, such as the Little Ouse, has been shown to have high potential for archaeological remains of prehistoric and later occupation.

9.12 Archaeological potential for later prehistoric occupation is indicated by cropmarks of numerous ring ditches (BNH 023, BNH 023, BNH 024, BNH 025, BNH 005, BNH 035, BNH 051) identified in the vicinity, which represent the remains of burial mounds, such as the Scheduled Bowl Barrows (NHLE 1018041, 1018099). Further evidence of prehistoric (BNH 040, BNH 009), Roman (ELV 004), Anglo-Saxon (BNH 001, BNH 030, BNH 007) and Medieval (BNH 003, BNH 022, BNH 068) occupation (BNH 022) comes from surface finds scatters, undated earthworks (BNH 055) and artefacts recovered by metal-detecting, recorded on the County Historic Environment Record (HER) and national PAS database.

9.13 The site also has potential with regards to WWI, WWII and Cold War military history, Barnham Camp (BNH 054), and which may relate to the Scheduled Atomic Bomb Store (NHLE 1020781).

9.14 There has been no systematic archaeological investigation of this site. The British Geological Survey records the presence of deposits, which have potential for Palaeolithic and faunal, environmental, and possible artefactual remains. Deposit modelling is needed to determine the level of this potential across the site.

9.15 Any planning application must be supported by the results of a programme of archaeological evaluation, including appropriate fieldwork, and should demonstrate the impacts of development/extraction on archaeological remains, including deposits with Palaeolithic potential, and proposals for managing those impacts.
9.16 Archaeological field evaluation, AND deposit modelling for Palaeolithic potential, will be required at an appropriate stage prior to the granting of any planning permission to allow for preservation in situ, where appropriate, of any sites of importance that might be defined (and which are currently unknown) and to allow archaeological preservation or mitigation strategies to be designed.

9.17 It is possible that following a program of archaeological assessment, some parts of this site may be found to contain heritage assets of sufficient significance to trigger NPPF 139, and therefore, potentially require preservation in situ.

Ecology

9.18 Potential impacts upon nature conservation interest including Breckland SPA, Breckland SAC, Breckland Farmland/Little Heath/Thetford Heaths SSSI, Gorse Grassland CWS, Thetford Heath NNR, European Protected Species (Bats and Great Crested Newt), Priority Species, Other Protected Species, Priority Habitats (Lowland Heath). Appropriate surveys potentially leading to mitigation would be required.

Air Quality

9.19 The site will potentially be operational for more than 30 years from 2018.

9.20 Air Quality near the site is currently good; the closest Air Quality Management Area is located approximately 26km southwest of the site, in Newmarket.

9.21 A number of residential properties lie within 250m of the proposed site boundary. This includes properties alongside Elveden Road to the east and west of the site.

9.22 The site encompasses parts of the Breckland SPA and Breckland Farmland SSSI and lies adjacent to the Breckland SPA/SAC and Thetford Heaths SSSI. Features sensitive to nitrogen deposition are identified by APIS for these sites.

9.23 The site is anticipated to generate 60 HGV movements per day, which is below the threshold defined within the IAQM/EPUK guidance, and therefore traffic emissions are unlikely to significantly increase local pollutant concentrations.

9.24 It is expected that an Air Quality Assessment would be submitted with the planning application for the site which considers the potential impacts of increased dust and pollutant concentrations associated with the extraction process, and which defines the mitigation and monitoring which will be implemented at the site to minimise the identified risk of impacts at the identified receptors.
Noise

9.25 In addition to standard noise mitigation measures such as the use of earth bunds as barriers, standoff buffer areas may be required.

Public Rights of Way

9.26 The site abuts a strategic regional trail, Barnham Byway no.2 (Icknield Way) adjacent to the western edge of the site. An appropriate buffer zone would be required. The precise details of which would depend upon details of site bunding etc.

Floods

9.27 Proposals need to consider the potential implications for ground water resources and controlled waters. Barnham is in a Groundwater Source Protection Zone.

Services

9.28 Various services cross the site including a high-pressure gas pipeline, irrigation pipelines, and overhead power lines. Proposals need to show either how this infrastructure will be safeguarded or removed.
Policy MS2: Barnham

Development will be acceptable so long as the proposals adequately address the following:

a) the seasonal working of the minerals to avoid the Stone Curlew nesting season;

b) the importation of inert wastes to aid restoration;

c) the use of an off-road haul route as a suitable means of highways access to reach the site stockpiling area at Contract Farm;

d) the provision of a signalised junction where the haul road crosses the B1106;

e) the storage of stockpiled material at Contract Farm if the off-road haul route is used;

f) measures to maximise highway safety and minimise amenity impacts at Elveden Primary School if the off-road haul route is used;

g) provision of a phased working and restoration scheme that is sympathetic to the Special Landscape Area, the Brecks landscape and the Special Protection Area;

h) the provision of an archaeological field evaluation and deposit modelling for Palaeolithic potential at depth, leading potentially to if necessary preservation in situ of artefacts in parts of the site;

i) measures to safeguard and enhance the setting of the Barnham Atomic Bomb Store Scheduled Monument and listed buildings in the vicinity of the site;

j) potential impacts upon nature conservation interest including Breckland SPA, Breckland SAC, Breckland Farmland/Little Heath/Thetford Heaths SSSI, Gorse Grassland CWS, Thetford Heath NNR, European Protected Species (Bats and Great Crested Newt), Priority Species, other Protected Species, Priority Habitats (Lowland Heath) including the provision of a project level Habitats Regulations Assessment, that would make clear the broad avoidance and/or mitigation measures and robust monitoring, identified at a strategic level that will be required and that restoration will ensure delivery of a net biodiversity gain long term, specifically with regard to the Breckland Special Protection Area;

k) the provision of an air quality assessment which considers the potential impacts of increased dust and pollutant concentration associated with the extraction and infilling process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the risk at residential properties within 250m and to the Special Protection Area;

l) the provision of measures to mitigate noise;

m) an appropriate buffer zone to safeguard the Icknield Way;

n) the implications for the underlying groundwater source protection zone, controlled waters and flooding;
o) the safeguarding or removal of all services which are within or close to the site;
p) only inert waste materials would be used to help restore the site;
q) a traffic management plan drafted to avoid traffic routeing through local villages including Barnham except in the case of local deliveries.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
10. **Belstead**

**Proposed development**

10.1 The proposed development would involve sand and gravel extraction on land at Belstead which is currently in agricultural use. Some backfilling of the resultant void with inert wastes would follow.

10.2 The proposed access would be directly onto the grade separated junction via an existing agricultural access onto the A12 at Belstead.

**Geology**

10.3 The supporting geological evidence estimates a total resource of 3.550 Mt of sand and gravel from the site which covers 34.990 ha. Boreholes drilled in 2017 across parts of the site show an overall grading of 31% stone, 63% sand and 6% silt.

**Development Plan and planning applications**

10.4 There are no Babergh District Council adopted or draft plan proposals that conflict directly with the proposed site. At the time of writing there are no known planning applications which affect the site.

**Highways**

10.5 Suitable access should be provided off the A12 junction.

**Landscape**

10.6 All woodlands and wooded tracks (Historic Landscape Features) should be retained and a suitable stand-off distance maintained.

**Historic Buildings**

10.7 Proposals should adequately assess if there would be potential impacts upon Bentley Old Hall which is a Grade II* listed building and propose suitable mitigation if required. There are other listed buildings in the vicinity of the site that are considered not to be affected.

**Archaeology**

10.8 The land in question occupies a topographically favourable position for human occupation, between Orwell and Stour valleys, and is in area of archaeological potential as recorded by information help by the County Historic Environment Record (HER).
10.9 Cropmarks of extensive pre-modern field systems are recorded from the vicinity (BSD 005, BTY 003), whilst the line of a Roman road passes west of the proposed extraction site. Evidence indicative of Prehistoric occupation (BTY 008, BTY 009, BSD 012), is known from the vicinity, and the site is bordered by large areas of ancient woodland (BTY 020, BTY 023) which may conceal further earthwork evidence. In addition to the potential for near surface archaeological remains, the site includes sub-surface deposits of Quaternary date with potential for Palaeolithic archaeology and Pleistocene faunal remains.

10.10 An archaeological investigation will be required, which will include assessment of, and provide mitigation strategies for, near surface archaeological potential and Palaeolithic potential (at depth).

Ecology

10.11 Potential impacts upon nature conservation interest including hedgerows and damp ditches, Brockley and Old Hall Woods CWS, Ground Water Source Protection Zone, European Protected Species (Dormouse, Bats), Priority Species, other Protected Species and Protected Habitats need to be adequately assessed and where necessary mitigation proposed.

Air Quality

10.12 This site is predominantly agricultural land. It is anticipated that the site will commence operations in 2020 for approximately 10 years.

10.13 Air Quality near the site is currently good; Babergh District Council has declared one Air Quality Management Area in Sudbury; however, this is >24km from the site. The closest AQMA, in Ipswich is almost 6km northeast of the site.

10.14 There are a number of residential properties within 250m of the site boundary/proposed access road (Including properties adjacent to London Road and on The Avenue), the closest being approximately 100m from the site boundary (Charity Cottage to the east of the site, and properties at the corner of Oakfield Road/ The Avenue to the north of the site).

10.15 There are no statutory designated habitats near to the site.

10.16 Access to the site will be directly from the A12. The number of HGV movements per day is not currently known, however, it is considered unlikely that additional traffic generated by the proposed extraction site will exceed the thresholds defined within IAQM/EPUK guidance, and therefore traffic emissions are unlikely to significantly increase local pollutant concentrations. However, should more than 100 HGVs be generated each day, an assessment of the air quality
impact of the additional traffic generated emissions should be included within
the assessment.

10.17 It is expected that an Air Quality Assessment would be submitted with the
planning application for the site which considers the potential impacts of
increased dust and pollutant concentrations associated with the extraction
process, and which defines the mitigation and monitoring which will be
implemented at the site to minimise the identified risk of impacts at the identified
nearby properties.

Noise

10.18 In addition to standard noise mitigation measures such as the use of earth
bunds as barriers, standoff buffer areas may be required.

Public Rights of Way

10.19 There are a number of rights of way which cross the site that will require
safeguarding or diverting.

Floods

10.20 Proposals need to consider the potential implications for ground water
resources and controlled waters.
Policy MS3: Belstead

Development will be acceptable so long as the proposals, adequately address the following:

a) establishment of a quarry access onto the A12 and a traffic management plan drafted so as to avoid quarry traffic diverting through local villages including Copdock except in the case of local deliveries;
b) safeguarding of all woodlands and wooded tracks;
c) adequate mitigation of potential significant adverse impacts upon listed buildings and their settings within the vicinity of the site Bentley Old Hall and its setting;
d) the requirement for an archaeological investigation leading appropriate mitigation for near surface potential and Palaeolithic potential at depth;
e) potential impacts upon nature conservation interest including hedgerows and damp ditches, Brockley and Old Hall Woods CWS, European Protected Species (Dormouse, Bats), Priority Species, other Protected Species and Protected Habitats;
f) the provision of an air quality assessment which considers the potential impacts of increased dust and pollutant concentration associated with the extraction and infilling process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the risk at residential properties within 250m;
g) the provision of measures to mitigate noise;
h) proposals of the safeguarding or diverting of public rights of way, and;
i) the implications for the underlying groundwater source protection zone and controlled waters.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
11. **Cavenham**

**Proposed development**

11.1 The proposed developments represent extensions to the existing long-standing sand and gravel quarrying operations at Cavenham Quarry which is operated by Allen Newport.

11.2 Currently sand and gravel is extracted and transported to the processing area by dump trucks. Once at the processing plant it is washed and sorted into different grades. It is then loaded onto lorries for transportation to various construction sites.

11.3 The established road access to the existing quarry utilises the C class roads to access the wider road network via the villages of Cavenham and Tuddenham St Mary. The roads are however part of Suffolk Lorry Route Network and are designated as Local Access Lorry Routes.

11.4 Middleton Aggregates currently operate an aggregates recycling area adjacent to the sand and gravel processing plant. Breedon Aggregates currently also operate an asphalt plant adjacent to the existing sand and gravel processing plant. In both cases using the existing access arrangements.

11.5 Originally the quarry started within the former World War II and Cold War Tuddenham Airfield. Extensions have since been dug to the north towards the River Lark. These proposals would extend the quarry to the south and west and bring them closer to the villages of Cavenham and Tuddenham St Mary.

11.6 Historically restoration has been designed to enhance habitat for the ground nesting Stone Curlew as the area is within a Special Protection Area.

11.7 Besides the proposed sand and gravel extraction there are proposals to infill part of the existing workings with inert waste materials (mainly soils and clays) and to consolidate the aggregates recycling area (that would remove any recyclable materials from imported inert waste materials).

**Geology**

11.8 The supporting geological evidence indicates that a total extractable resource of 3.545 Mt is contained within the site which covers 137.100 ha. Although variable in depth and quality it is said to be similar to the existing deposit being worked at the quarry and on average is made up of 19% gravel, 74% sand and 7% silt.
Development Plan and Planning Applications

11.9 There are no Forest Heath District Council adopted or draft plan proposals which conflict with the proposed developments. There are no planning applications which conflict with the proposed developments.

Highways

11.10 The existing access arrangements are acceptable based on the existing flows.

Landscape

11.11 Likely to be acceptable subject to mitigation. Working and restoration proposals should take into account the potential impacts on the wider Special Landscape Area.

Historic Buildings

11.12 No historic buildings would be affected.

Archaeology

11.13 Evidence of prehistoric occupation is known from the vicinity. Archaeological investigations associated with previous phases of extraction have identified Neolithic and Bronze-Age occupation (CRM 003, CRM 018). Archaeological potential for later prehistoric and Roman occupation is indicated by surface finds scatters (CAM 014) and numerous metal detecting finds from the fields immediately south of the proposed extraction site. The site also has potential with regards to WWII military history, Tuddenham Airfield (TDD 019). There has been no systematic archaeological investigation of this large site.

11.14 The linear earthworks called Black Ditches to the east are a Scheduled Monument. Heritage England would require a significant buffer zone between the Monument and any restoration activities of the site. The restoration should seek to preserve and enhance the setting of the Scheduled Monument.

11.15 Any planning application must be supported by the results of a programme of archaeological evaluation, including appropriate fieldwork, and should demonstrate the impacts of development/extraction on archaeological remains, including deposits with Palaeolithic potential, and proposals for managing those impacts.

11.16 Archaeological field evaluation, and deposit modelling for Palaeolithic potential, will be required at an appropriate stage prior to the granting of any planning permission to allow for preservation in situ, where appropriate, of any sites of importance that might be defined (and which are currently unknown) and to allow archaeological preservation or mitigation strategies to be designed.
Ecology

11.17 Potential impacts upon nature conservation interest including Breckland SPA, Breckland SAC, Breckland Farmland SSSI, Ancient Woodland CWS, Cavenham Heath NNR, RNR, watercourses, European Protected Species (Bats), Priority Species, Priority Habitats, Stone Curlew, Woodlark and Nightjar need to be adequately assessed and where necessary mitigation proposed.

Air Quality

11.18 This Site represents an extension to the existing quarry boundary and is currently agricultural land. Extraction could begin at the Site as early as 2020.

11.19 Air quality near the Site is currently good; the closest Air Quality Management Area is located approximately 13km southwest of the Site, in Newmarket.

11.20 There are a number of residential properties within 250m of the site. These include Mill Farm House, which is located approximately 170m from the eastern boundary (there is an existing barrier of trees between the quarry and this property).

11.21 The Site is encompassed by the Breckland Farmland SSSI and Breckland SPA. It also lies immediately adjacent to the Breckland SAC and Ickingham Heaths SSSI. Features sensitive to nitrogen deposition are identified by APIS for these sites.

Traffic associated with the proposed Site would continue to enter and leave the Site by the existing access point on Cavenham Road. The number of Heavy Goods Vehicles (HGVs) generated by the proposals is not currently known, as the full results of the geological investigations are not yet available from which this can be determined. It is considered unlikely that additional traffic generated by the proposed extraction site will exceed the thresholds defined within the IAQM / EPUK guidance, and therefore traffic emissions associated with this Site in isolation are unlikely to significantly increase local pollutant concentrations.

11.22 However, should more than 100 HGVs be generated each day, an assessment of the air quality impact of the additional traffic generated emissions should be included within the assessment.

11.23 There is a risk of cumulative impacts where extraction activities coincide with activities on the existing quarry Site.

11.24 It is expected that an air quality assessment would be submitted with the planning application for the extension which considers the potential impacts of increased dust and pollutant concentrations associated with the extraction.
process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the identified risk of impacts at the identified habitats.

Noise

11.25 Assuming standard mitigation measures such as the use of earth bunds as barriers, no other noise mitigation measures are required.

Public Rights of Way

11.26 The Cavenham Byway Open should be retained on its definitive alignment and southern end should be fenced from the rest of the site

Floods

11.27 Proposals need to consider the potential implications for ground water resources and controlled waters. Groundwater Source Protection Zones are affected by this proposal.
Policy MS4: Cavenham

Development will be acceptable so long as the proposals adequately address the following:

a) highways maintenance, safety and amenity implications of HGVs;
b) a phased restoration scheme appropriate to the Brecks Landscape and the Breckland Special Protection area;
c) the requirement for an archaeological investigation leading appropriate mitigation for near surface potential and Palaeolithic potential at depth;
d) the safeguarding of, and the preservation and enhance of the setting of, Black Ditches Ancient Monument;
e) potential impacts upon nature conservation interest including Breckland SPA, Breckland SAC, Breckland Farmland SSSI, Ancient Woodland CWS, Cavenham Heath NNR, RNR, watercourses, European Protected Species (Bats), Priority Species, Priority Habitats, Stone Curlew, Woodlark and Nightjar including the provision of a project level Habitats Regulations Assessment, that would make clear the broad avoidance and/or mitigation measures and robust monitoring, identified at a strategic level that will be required and that restoration will ensure delivery of a net biodiversity gain long term, specifically with regard to the Breckland Special Protection Area;
f) the provision of an air quality assessment which considers the potential impacts of increased dust and pollutant concentration associated with the extraction and infilling process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the risk at residential properties within 250m and to the Breckland Special Protection area;
g) the provision of measures to mitigate noise;
h) proposals of the safeguarding or diverting of public rights of way;
i) no dewatering of the proposed extraction area;
j) the implications for the underlying groundwater source protection zone and controlled waters of extraction and infilling;
k) the implications for those parts of site within Flood Zone 2, and;
l) the proposed enlarged inert waste recycling facility and the use of inert wastes to help restore the site.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
12. **Layham**

**Proposed development**

12.1 The proposed development represents an extension to the existing long-standing sand and gravel quarrying operations at Rands Hall Pit, Layham, which is operated by Brett.

12.2 The established road access uses the U8552 Rands Road to reach the reach the A1071, which is defined in the Suffolk Lorry Route Network as a Zone Distributor. The proposed site would involve quarry traffic crossing the U8504 Pope’s Green Lane which however very lightly trafficked.

12.3 This site was previously included in the Suffolk Minerals Specific Site Allocations DPD, but no planning application was received due to the prevailing economic conditions.

**Geology**

12.4 The supporting geological evidence indicates that a total extractable resource of 0.829 Mt is contained within the site which covers 16.980 ha. The deposit is made up of 23% coarse aggregates and 77% fine aggregate.

**Development Plan and planning applications**

12.5 There are no Babergh District Council adopted plan proposals that conflict with the proposed site. At the time of writing there are no known planning applications which affect the site.

**Highways**

12.6 The existing access arrangements are satisfactory.

**Landscape**

12.7 The resource is shallow and is capable of effective and sensitive mitigation without fill in this Special Landscape Area.

**Historic Buildings**

12.8 No historic buildings would be affected.

**Archaeology**

12.9 Evidence of low density and low complexity later prehistoric activity (LYM 034) has been identified by archaeological investigations undertaken in connection with previous phases of extraction, lying north of the proposed extension to
workings. A programme of archaeological work will be required, secured through a planning condition.

Ecology

12.10 There is the potential for impacts upon nature conservation interest including CWS including ancient woodland, European Protected Species (dormice, otters, bats, and great crested newts), priority species (BAP) and, priority habitats including hedgerows. Appropriate surveys and mitigation will be required.

Air Quality

12.11 Air quality near the Site is currently good; Babergh District Council has declared one Air Quality Management Area in Sudbury; however, this is >14km from the proposed site.

12.12 There are four residential properties within 250m of the extension site boundary; The Croft, Ivy Tree Cottage, Ivy Tree Farm and Wyncoll's Farm. A stand-off margin and planting / bunding are proposed to help mitigate the effects at these properties; additional dust suppression measures will also be defined.

12.13 It is estimated that the site will generate 150 HGV movements per day, which exceeds the threshold defined within the IAQM / EPUK guidance; there is a risk therefore that, where this traffic is additional to the existing quarry traffic, emissions would significantly increase local pollutant concentrations alongside routes taken by HGVs generated by the proposals.

12.14 There is a risk of cumulative impacts where extraction activities coincide with activities on the existing quarry site.

12.15 It is expected that an air quality assessment would be submitted with the planning application for the extension which considers the potential impacts of increased dust and pollutant concentrations associated with the extraction process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the identified risk of impacts at the identified properties.

Noise

12.16 In addition to standard noise mitigation measures such as the use of earth bunds as barriers, standoff buffer areas may be required.

Public Rights of Way

12.17 No Rights of Way affected.
Floods

12.18 Proposals need to consider the potential implications for ground water resources and controlled waters.

Policy MS5: Layham

Development will be acceptable so long as the proposals, adequately address the following:

a) a progressive working and low-level restoration scheme that is sympathetic to the wider Special Landscape Area and to the nearby Area of Outstanding Natural Beauty;

b) protection of residential amenity;

c) potential impacts upon nature conservation interest including CWS including ancient woodland, European Protected Species (dormice, otters, bats, and great crested newts), priority species (BAP) and, priority habitats including hedgerows. Appropriate surveys and mitigation will be required;

d) the provision of an air quality assessment which considers the potential impacts of increased dust and pollutant concentration associated with the extraction and infilling process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the risk at residential properties within 250m;

 e) the provision of measures to mitigate noise, and;

f) the implications for the underlying groundwater and controlled waters.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
13. **Tattingstone**

**Proposed development**

13.1 The proposed quarry extension was submitted on behalf of Shotley Holdings and proposes an extension to the area currently being quarried for sand. Restoration would involve the backfilling with inert waste (mainly soils and clays) to previous ground levels.

13.2 In the existing quarry sand is extracted in modest volumes on an annual basis and sold mainly for general fill. The subsequent void space is backfilled with dry not reactive waste hazardous waste, mainly asbestos.

13.3 The established road access to the site utilises the C426 to access the A137 which is classed as a Zone Distributor Lorry Route under the Suffolk Lorry Route Network.

**Geology**

13.4 The supporting geological evidence indicates that a total extractable resource of 0.756 M t of is contained within the site which covers 3.798 ha. Grading analysis of the deposit indicates that on average the deposit is made up of 4% gravel, 81% sand and 15% silt.

**Development Plan and planning applications**

13.5 There are no Babergh District Council adopted plan proposals that conflict with the proposed site. There are also no planning applications that affect the site at the time of writing.

13.6 It is noted however that Babergh District Council and Mid Suffolk District Council are currently preparing a joint local plan. Proposals for housing may be included close to the proposed extension area. Housing developers are advised that they should provide adequate mitigation in respect of the permitted sand quarry and waste operations and if the proposed extension has been permitted for that as well.

**Highways**

13.7 The existing access is adequate for the existing level of site traffic.

**Landscape**

13.8 Particular care is required when the removing of the established screen bunding as it could potentially open up views of the existing minerals extraction and waste landfilling and recycling operations to neighbouring properties and the wider Special Landscape Area.
Historic Buildings

13.9 No historic buildings would be affected.

Archaeology

13.10 There is evidence of prehistoric and medieval occupation (TAT 020) identified during archaeological investigations in association with the previous phases of extraction, immediately west of the proposed site. Cropmarks of linear and curvilinear ditches (TAT 004), probably representing at least two separate phases of relict field systems. There has been no systematic archaeological investigation of this large site. Potential for Palaeolithic remains associated with Kesgrave and Lowestoft formations.

13.11 Any planning application must be supported by the results of a programme of archaeological evaluation, including appropriate fieldwork, and should demonstrate the impacts of development/extraction on archaeological remains, including deposits with Palaeolithic potential, and proposals for managing those impacts.

13.12 Archaeological field evaluation, and deposit modelling for Palaeolithic potential, will be required at an appropriate stage prior to the granting of any planning permission to allow for preservation in situ, where appropriate, of any sites of importance that might be defined (and which are currently unknown) and to allow archaeological preservation or mitigation strategies to be designed.

Ecology

13.13 There are potential impacts upon nature conservation interest including Stour & Orwell SPA, Stour Estuary SSSI, Brantham Bridge Meadows CWS, watercourses, European Protected Species (Bats), Priority Species, Priority Habitats, that need to be adequately assessed and where necessary mitigation proposed.

Air Quality

13.14 The Site is currently agricultural land. It is anticipated that the Site could be operational by 2025/30. The estimated life of the Site is 23 years.

13.15 Air quality near the Site is currently good; the closest Air Quality Management Area is located over 8km northeast of the Site, in Ipswich.

13.16 There are a number of residential properties within 250m of the eastern Site boundary, including properties adjacent to the A137. Folly Farm House also lies approximately 225m from the southwest corner of the Site boundary.
property also lies within 200m of the southern boundary of the existing Folly Farm Quarry. A 'standoff' buffer is indicated on drawings along the eastern boundary of Phase 1, within which a soil storage / screening bund is proposed. Phase 2 is screened along the eastern boundary by existing trees.

13.17 There are no statutory designated habitat sites within 250m of the extension Site boundary.

13.18 Access to the Site would be via the existing quarry access roads. The number of HGVs generated by the proposals will be similar to that generated by the existing quarry. It is considered unlikely that additional traffic generated by the proposed extraction site will exceed the thresholds defined within the IAQM / EPUK guidance, and therefore traffic emissions are unlikely to significantly increase local pollutant concentrations.

13.19 There is a risk of cumulative impacts where extraction activities coincide with activities on the existing quarry Site.

13.20 It is expected that an air quality assessment would be submitted with the planning application for the extension which considers the potential impacts of increased dust and pollutant concentrations associated with the extraction process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the Site to minimise the identified risk of impacts at the identified receptors.

**Noise**

13.21 In addition to standard noise mitigation measures such as the use of earth bunds as barriers, standoff buffer areas may be required.

**Public Rights of Way**

13.22 Boundaries should be so arranged to ensure Tattingstone BR 37A is unobstructed. A good wide corridor should be retained for bridleway of 5 metres minimum width. If the site boundaries are bunds, this should be 10m wide. Part of Tattingstone FP 37 is within the site. This should either be accommodated, or a temporary extinguishment order sought. Bridleway 37A and Footpath 37 will require diversion during the working and restoration of the proposed development.

**Floods**

13.23 No significant risk but need to be mindful of the watercourse that runs through the site.
Policy MS6: Tattingstone

Development will be acceptable so long as the proposals, adequately address the following:

   a) the highways safety, maintenance and amenity implications of HGVs;
   b) a comprehensive scheme of screening and bunding for the proposed extension is essential to minimise adverse impacts of the wider landscape of the Special Landscape Area, Area of Outstanding Natural Beauty including the proposed extension area and on local visual amenity;
   c) an archaeological field evaluation, and deposit modelling for Palaeolithic potential, prior to the granting of any planning permission to allow for preservation in situ, where appropriate, of any sites of importance that might be defined (and which are currently unknown) and to allow archaeological preservation or mitigation strategies to be designed;
   d) potential impacts upon nature conservation interest including trees, ditches, watercourses, the Stour & Orwell Special Protection Area, European Protected Species (Bats), Priority Species, Priority Habitats, which need to be adequately assessed and where necessary mitigation proposed;
   e) the provision of an air quality assessment which considers the potential impacts of increased dust and pollutant concentration associated with the extraction and infilling process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the risk at residential properties within 250m;
   f) the provision of measures to mitigate noise;
   g) the diversion of Bridleway 37A and Footpath 37 and;
   h) the implications for the underlying groundwater and controlled waters including the stream that runs through the site.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
14. **Wangford**

**Proposed development**

14.1 This site was proposed as an extension to Wangford Quarry by Cemex. The proposed extension known as Lime Kiln Farm is located to the east of the existing processing plant.

**Geology**

14.2 The site is estimated to contain approximately 1,000 Mt of sand and gravel from the site which covers 23.800 ha. The grading is 60% gravel, 35% sand and 5% silt.

**Development Plan and planning applications**

14.3 There are no adopted or draft plan proposals that conflict with the proposed sites. At the time of writing there are no known planning applications which affect the sites.

**Highways**

14.4 The Highways Authority may require a contribution towards replacement of the bridge between the processing plant site and the A12.

**Landscape**

14.5 The site is inside the Area of Outstanding Natural Beauty however it is accepted that there is an overriding need to work the mineral.

14.6 NPPF paragraph 115 states that great weight should be given to conserving landscape and scenic beauty in AONBs which have the highest status of protection in relation to landscape and scenic beauty.

14.7 NPPF paragraph 116 indicates that planning permission for major development (which would include sand and gravel extraction) should be refused except in exceptional circumstances and where it can be demonstrated that it is in the Public Interest. It states that such proposals should be considered in the light of an assessment of:

i) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;

ii) the cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for it in some other way; and;
iii) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

14.8 NPPF paragraph 144 states that when determining planning applications local authorities should as far as practicable provide for minerals from outside of AONBs.

14.9 Having appraised the proposed site within the context of the NPPF and other material considerations it was considered justified to include the Lime Kiln Farm within the Plan because of the following exceptional reasons:

ii) the existing quarry at Wangford has been in operation for several decades and is an important part of the local economy;

iii) there is a shortage of gravel in the market area served by this quarry and the proposed extension contains an unusually high percentage of gravel (60%) compared to most other quarries in Suffolk and Norfolk;

iv) the market area includes both Ipswich and Norwich and the gravel from Wangford is used to supplement the sand rich deposits from other quarries within the market area including those of rival companies;

v) processing is able to produce a regular spherical gravel grade product which can be used for specialist uses such as filter beds;

vi) there are no other acceptable proposed sites within the north-east area of Suffolk;

vii) alternative sources such as crushed rock, recycled aggregates and marine dredged sand and gravel are unable to provide a suitable alternative due to availability or economic viability;

viii) it is considered that in respect of the impact upon the wider AONB, the recreation within the area, the nearby residential properties and ecological designations, the proposals could be mitigated to an acceptable extent.

Historic Buildings

14.10 It is considered that no historic buildings would be affected.

Archaeology

14.11 The site occupies a favourable topographic location for early occupation and ritual activity. Extensive cropmarks of linear and curvilinear ditches and enclosures (REY 077, REY 76, REY 075) and finds of Roman and Medieval date (REY 026, REY 028) are recorded on the County Historic Environment Record (HER) in the vicinity. Archaeological investigations associated with
previous phases of extraction lying immediately west of the proposed site identified a range of features of prehistoric and Medieval date (WNF 023, WNF 018, WNF 021).

14.12 Archaeological field evaluation, and deposit modelling for Palaeolithic potential, will be required at an appropriate stage prior to the granting of any planning permission to allow for preservation in situ, where appropriate, of any sites of importance that might be defined (and which are currently unknown) and to allow archaeological preservation or mitigation strategies to be designed.

14.13 Any planning application must be supported by the results of a programme of archaeological evaluation, including appropriate fieldwork, and should demonstrate the impacts of development/extraction on archaeological remains, including deposits with Palaeolithic potential, and proposals for managing those impacts.

Ecology

14.14 There is the potential for impacts upon nature conservation interest including Suffolk Coast & Heaths AONB, Minsmere-Walberswick SPA, Minsmere-Walberswick Heaths & Marshes SSSI, Wangford Marshes CWS, Suffolk Coast NNR, Hen Reedbeds (SWT Site), Reydon Wood (SWT Site), Groundwater Source Protection Zone (River Wang, Wolsey's creek, River Blyth), European Protected Species (Otters, Bats), Priority Species (Bittern, Water Vole, Barn Owl), other protected Species (Badger), Priority Habitats (REEDBEDS, Grazing Marshes). These need to be adequately assessed and where necessary mitigation proposed.

Air Quality

14.15 Air Quality at the site is currently good; Waveney District Council has not declared any Air Quality Management Areas.

14.16 There are a number of residential properties within 250m of the site; Lime Kiln Farm lies within approximately 50m of the Southern boundary of the site, Reydon Grange, Toad Hall and Wangford Farm lies within 250 of the northern boundary of the site.

14.17 There are statutory designated habitats near to the site.

14.18 Traffic generation is anticipated to be the same as for the existing Wangford Quarry. It is considered unlikely that additional traffic generated by the proposed extraction site will exceed the thresholds defined within IAQM/EPUK guidance, and therefore traffic emissions are unlikely to significantly increase local pollutant concentrations.
14.19 The site lies adjacent to an existing landfill site, and there is a risk of cumulative impacts should both be operational at the same time.

14.20 It is expected that an Air Quality Assessment would be submitted with the planning application for the site which considers the potential impacts of increased dust and pollutant concentrations associated with the extraction process, the potential cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimize the identified risk of impacts at the identified nearby residential properties and statutory habitats.

Noise

14.21 In addition to standard noise mitigation measures such as the use of earth bunds as barriers, standoff buffer areas will be required at Lime Kiln Farm.

Public Rights of Way

14.22 No public rights of way are affected.

Floods

14.23 The site is high risk of groundwater flooding and is underlain by a minor aquifer. There are areas of predicted surface water flooding for the site. The site also falls within Groundwater Source Protection Zones.
Policy MS7: Wangford

Development will be acceptable so long as the proposals, adequately address the following:

a) the highways safety, maintenance and amenity implications of HGVs;

b) mitigation of landscape and visual impacts through a scheme of planting and bunding and the retention of boundary features and other key vegetation;

c) a programme of archaeological evaluation, including appropriate fieldwork, and should demonstrate the impacts of development/extraction on archaeological remains, including deposits with Palaeolithic potential, and proposals for managing those impacts;

d) the potential for direct and indirect impacts upon nature conservation interest including Suffolk Coast & Heaths AONB, Minsmere-Walberswick SPA, Minsmere-Walberswick Heaths & Marshes SSSI, Wangford Marshes CWS, Suffolk Coast NNR, Hen Reedbeds (SWT Site), Reydon Wood (SWT Site), Groundwater Source Protection Zone (River Wang, Wolsey’s creek, River Blyth), European Protected Species (Otters, Bats), Priority Species (Bittern, Water Vole, Barn Owl), other protected Species (Badger), Priority Habitats (REEDBEDS, Grazing Marshes) and any mitigation required;

e) measures to prevent significant adverse hydrological impacts upon the potable water supplies, protected sites and species in respect of both water quality and dewatering;

f) the retention of linear features on the boundary and within the site to safeguard the ecological interest within the site including hedgerows and large hedgerow trees;

g) the provision of an air quality assessment which considers the potential impacts of increased dust and pollutant concentration associated with the extraction and infilling process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the risk at residential properties within 250m and at statutory habitats, and;

h) the provision of measures to mitigate noise.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
15. **Wetherden**

**Proposed development**

15.1 The proposed extension to Wetherden Quarry was submitted on behalf of Aggmax and proposes an extension to the area currently being quarried for sand and gravel. Restoration would involve the backfilling with inert waste (mainly soils and clays) to previous ground levels.

15.2 This would follow the existing pattern in the existing quarry where sand and gravel is extracted and processed and the subsequent void space backfilled with inert wastes.

15.3 The established road access to the site utilises the U4977 which is classed as a Local Access Lorry Route under the Suffolk Lorry Route Network to access the A14. When travelling to and from the east, quarry traffic passes through the village of Haughley New Street.

**Geology**

15.4 The supporting geological evidence indicates that a total extractable resource of 0.750 Mt of is contained within the site which covers 6.207 ha. Grading analysis of the deposit indicates that on average the deposit is made up of 27% gravel (including oversize), 65% sand and 8% silt.

**Development Plan and Planning Applications**

15.5 There are no Mid Suffolk District Council adopted plan proposals that conflict with the proposed site.

15.6 It is noted however that Babergh District Council and Mid Suffolk District Council are currently preparing a joint local plan. It is noted that the Plan may include an area of housing between the existing settlement of Elmswell and the Quarry. The same area has already been the subject of an outline planning application for residential development which has been approved.

15.7 Housing developers are advised that they should provide adequate mitigation in respect of the permitted sand and gravel quarry and waste operations.

**Highways**

15.8 Improved wheel cleaning at the site is required.
**Landscape**

15.9 Mitigation should include a screening belt of trees should be planted along the western flank of the existing quarry and proposed extension.

**Historic Buildings**

15.10 No historic buildings would be affected.

**Archaeology**

15.11 There is evidence of low density and low complexity prehistoric and Roman activity (WDN 013, WDN 002, WDN 011, EWL 004) has been identified by archaeological investigations undertaken in connection with previous phases of extraction, lying south of the proposed extension to workings. In addition, several ovens/kilns of Roman date, were identified at evaluation, ahead of development on a site immediately north of the proposed extension.

15.12 A programme of archaeological work will be required, secured through a planning condition

15.13 Planning conditions must secure a programme of archaeological investigation, which will include assessment of, and provide mitigation strategies for, near surface archaeological potential and Palaeolithic potential (at depth).

**Ecology**

15.14 Potential impacts upon watercourses, European Protected Species, Priority Species, Priority Habitats, to be adequately assessed and where necessary mitigation proposed.

**Air Quality**

15.15 A northern extension is proposed to the existing quarry boundary; the Site is currently agricultural land. Operation of the Site is anticipated to commence as early as 2018/2020, with an operational life of between 7 and 10 years.

15.16 Air quality near the Site is currently good; there are no Air Quality Management Areas currently declared by Mid Suffolk District Council.

15.17 There are a number of residential properties to the north of the Site which lie within 250m of the extension site boundary (properties on Mill Gardens and Prescott Drive); the closest property is Warren Mill House, which is approximately 100m from the extension boundary. This property is no closer to the extension boundary than it is to the existing quarry boundary, and a bund is already in place to separate the property from the extraction activities.
15.18 A 'standoff' buffer is indicated on drawings, within which screening bunds could be installed as mitigation, if required. This buffer is wider along the north, east and west boundaries and would increase the separation distance between works and the identified residential properties.

15.19 There are no statutory designated habitats near to the Site.

15.20 Access to the Site would be via the existing quarry access roads. The Site is estimated to generate 60 HGV movements per day; this remains below the thresholds defined within the IAQM / EPUK guidance, and therefore traffic emissions are unlikely to significantly increase local pollutant concentrations.

15.21 There is a risk of cumulative impacts where extraction activities coincide with activities on the existing quarry Site.

15.22 It is expected that an air quality assessment would be submitted with the planning application for the extension which considers the potential impacts of increased dust and pollutant concentrations associated with the extraction process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the extension site to minimise the identified risk of impacts at the identified properties.

Noise

15.23 Assuming standard mitigation measures such as the use of earth screening additional stand-off buffers are required.

Public Rights of Way

15.24 There is an extensive network of well used public rights of way that would be affected by this proposal and proposals should include detailed mitigation.

Floods

15.25 There is no significant risk, but the site is within a Groundwater Source Protection Zone.
Policy MS8: Wetherden

Development will be acceptable so long as the proposals, adequately address the following:

a) the highways safety, maintenance and amenity implications of HGVs including improved wheel cleaning facilities to avoid mud being deposited on the public highway outside of the site;
b) mitigation of landscape and visual impacts through a scheme of planting along the western flank of the existing quarry and proposed extension;
c) a programme of archaeological investigation, which will include assessment of, and provide mitigation strategies for, near surface archaeological potential and Palaeolithic potential (at depth).
d) potential impacts upon hedgerows, ditches, watercourses, European Protected Species, Priority Species, and Priority Habitats;
e) the provision of an air quality assessment which considers the potential impacts of increased dust and pollutant concentration associated with the extraction and infilling process, the potential for cumulative impacts, and which defines the mitigation and monitoring which will be implemented at the site to minimise the risk at residential properties within 250m;
f) the provision of measures to mitigate noise;
g) proposals to mitigate the impacts upon the existing rights of way network, and;
h) the implications for the underlying groundwater and controlled waters;

and

i) a traffic management plan drafted to avoid traffic routeing through local villages including Elmwell and Whetherden except in the case of local deliveries.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
16. **Wherestead**

**Proposed development**

16.1 The proposed development represents an extension to the permitted sand and gravel quarrying operations at Pannington Hall Quarry, Wherestead, which is operated by Brett. Planning permission was granted a number of years ago, implemented and also renewed recently. The quarry is however currently dormant due to Brett concentrating activities at another site which is coming to an end. Some inert waste materials might be required to aid restoration.

16.2 The permitted access is directly onto the A137, which is defined in the Suffolk Lorry Route Network as a Zone Distributor. The existing site is bisected by the C453 Belstead road, the intention is that the two parts of the site would be linked by a conveyor under the road.

16.3 This proposed extension site is adjacent to the main southern part of the site without the need to cross a public highway.

**Geology**

16.4 The supporting geological evidence indicates that a total extractable resource of 0.500 Mt is contained within the site and is made up of superficial glacial sand and gravel deposits of the Lowestoft Formation and the Kesgrave Catchment Subgroup. The extension is considered to be geologically similar to the existing site and covers 10.920 ha.

**Development Plan and planning applications**

16.5 There are no Babergh District Council adopted plan proposals that conflict with the proposed site. At the time of writing there are no known planning applications which affect the site.

**Highways**

16.6 The existing approved access is adequate.

**Landscape**

16.7 Significant stand off from adjacent ancient woodland required.

**Historic Buildings**

16.8 No historic buildings would be affected.
Archaeology

16.9 There is evidence indicative of prehistoric, Roman and Medieval occupation is recorded from the vicinity, on the County Historic Environment Record (HER). Cropmarks of extensive field boundaries, a trackway and ditches have been identified by aerial photography across the proposed site (WHR 078).

16.10 The British Geological Survey records the presence of Kesgrave (Proto-Thames) and Anglian deposits, which have potential for Lower Palaeolithic faunal, environmental and possible artefactual remains. Deposit modelling is needed to determine the level of this potential across the site.

16.11 A programme of archaeological work will be required, secured through a planning condition, which will include assessment of, and provide mitigation strategies for, near surface archaeological potential and Palaeolithic potential (at depth).

Ecology

16.12 Potential impacts upon nature conservation interest including Freston and Cutler’s Wood SSSI, CWS ancient woodland, Ground Water Source Protection Zone, European Protected Species (dormice and bats), priority species (BAP) and habitats, and another protected species. Appropriate surveys and mitigation will be required.

Air Quality

16.13 Air quality near the Site is currently good; the closest Air Quality Management Area is located approximately 4.5km northeast of the Site, in Ipswich.

16.14 There are no residential properties nor any statutory designated habitat sites within 250m of the extension Site boundary.

16.15 It is estimated that the Site will generate 150 HGV movements per day, which exceeds the threshold defined within the IAQM / EPUK guidance; there is a risk therefore that, where this traffic is additional to the existing quarry traffic, emissions would significantly increase local pollutant concentrations alongside routes taken by HGVs generated by the proposals. It is understood that extraction will follow on from the permitted workings, and therefore this is unlikely to be the case.

16.16 There is a risk of cumulative impacts where extraction activities coincide with activities on the existing quarry Site (however, this is understood not to be the case).
16.17 The proposals currently include consideration of additional screening / bunding, dust suppression measures and maintenance of on-site plant. It is anticipated that mitigation measures will be further defined and implemented at the site to minimise the impact on air quality in the wider area.

Noise

16.18 Assuming standard noise mitigation measures such as the use of earth bunds as barriers, no other noise mitigation measures are required.

Public Rights of Way

16.19 Bridleway no. 27 and 29 Wherstead are shown adjacent to a proposed boundary. Boundaries should be so arranged to ensure bridleway is unobstructed. A good wide corridor should be retained for the bridleway of 5 metres minimum width. If the site boundaries are bunds, this should be 10m wide. Public Footpath no. 34 is affected and will run partly within the site. This would need to be temporarily diverted with a minerals order to follow the boundary alignment. The width would need to be 3 metres.

Floods

16.20 Proposals need to consider the potential implications for ground water resources and controlled waters.
Policy MS9: Wherstead

Development will be acceptable so long as the proposals, adequately address the following:

a) mitigation of landscape and visual impacts including upon the Special Landscape and the nearby proposed extension to the Area of Outstanding Natural Beauty;

b) a programme of archaeological investigation, which will include assessment of, and provide mitigation strategies for, near surface archaeological potential and Palaeolithic potential (at depth).

c) potential impacts upon nature conservation interest including hedgerows, ditches, Freston and Cutler’s Wood SSSI, CWS ancient woodland, Ground Water Source Protection Zone, European Protected Species (dormice and bats), priority species (BAP) and habitats, and another protected species;

d) the retention of the boundary between the existing site and the proposed extension including the mature oak trees and the recently planted trees;

e) proposals to minimise the impact upon air quality in the wider area;

f) proposals to mitigate the impacts upon the existing rights of way network;

g) the implications for the underlying groundwater and controlled waters including the potential impacts on Ground Water Source Protection Zone, and;

h) a traffic management plan drafted to avoid traffic diverting through local villages including Belstead except in the case of local deliveries.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
17. Worlington

Proposed development

17.1 The proposed developments represent extensions to the permitted sand and gravel quarrying operations at Bay Farm, Worlington, which is operated by Frimstone. The proposed sites would follow the existing pattern of development whereby the sand and gravel is extracted and the land restored by utilising the importation of inert waste materials. The proposed extensions include three areas to the north of the existing quarry.

17.2 The permitted access is directly onto the B1085 Elms Road which links to the A11 via a grade separated junction close by.

Geology

17.3 The supporting geological evidence indicates that a total extractable resource of 0.670 Mt is contained within the site which covers 23.161 ha. The quality it is said to be similar to the existing deposit being worked at the quarry.

Development Plan and planning applications

17.4 There are no Forest Heath District Council adopted plan proposals that conflict with the proposed site. At the time of writing there are no known planning applications which affect the site.

Highways

17.5 The existing access is considered to be adequate.

Landscape

17.6 Proposals should preserve the locally characteristic tree belts were possible.

Historic Buildings

17.7 No historic buildings would be affected.

Archaeology

17.8 A program of archaeological investigation will be required, which will include assessment of, and provide mitigation strategies for, near surface archaeological potential and Palaeolithic potential (at depth).
17.9 Evidence of low density and low complexity prehistoric activity (WGN 028, WGN 034, WGN 038) has been identified by archaeological investigations undertaken in connection with previous phases of extraction, lying south of the proposed extensions. The site of a probable BA burial mound, “Swale’s Tumulus” (WGN 003) lies approximately 100m NE. Significant quantities of Neolithic pottery and burnt bone have been found in association with this feature (WGN 003).

Ecology

17.10 Potential impacts upon nature conservation interest including Breckland SPA, Breckland SAC, Breckland Flora CWS, Ground Water Source Protection zone, European Protected Species, Other Protected Species, and Priority Habitats. Surveys and potential mitigation required.

Air Quality

17.11 This Site represents an extension to the existing quarry boundary and is currently agricultural land. Extraction could begin in 2018 and last for 7 years.

17.12 Air quality near the Site is currently good; the closest Air Quality Management Area is located approximately 9.4km southwest of the Site, in Newmarket.

17.13 There are no residential properties nor statutory designated habitat sites within 250m of extensions site boundary’s.

17.14 Traffic associated with the proposed Site would continue to enter and leave the site by the existing access point. The site will be worked once extraction from the current phases is completed, and traffic movements will be similar to the existing quarry. Therefore, there will be no material change from existing flows, and traffic emissions are unlikely to increase local pollutant concentrations.

Noise

17.15 Assuming standard mitigation measures such as the use of earth screening bunds as barriers, no other noise mitigation measures are required.

Public Rights of Way

17.16 No public rights of way would be directly affected.

Floods

17.17 The site sits above Principle and Secondary Aquifers. Ordinary watercourse between extension areas should not be adversely affected by works in terms of water quality (pollution).
Policy MS10: Worlington

Development will be acceptable so long as the proposals, adequately address the following:

a) mitigation of landscape and visual impacts including the retention where possible of the characteristic tree belts;

b) a programme of archaeological investigation, which will include assessment of, and provide mitigation strategies for, near surface archaeological potential and Palaeolithic potential (at depth);

c) potential impacts upon nature conservation interest including Breckland SPA, Breckland SAC, Breckland Flora CWS, Ground Water Source Protection Zone, European Protected Species, Other Protected Species, and Priority Habitats;

d) the provision of measures to mitigate noise, and;

e) the implications for the underlying groundwater, controlled waters and the local water environment, including the potential impacts on Ground Water Source Protection Zone.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.
17. Proposed waste sites

17.1 The following inset maps show the proposed sites for proposed waste development.
18. Sizewell “A” Nuclear Power Station

Proposed development

19.1 Sizewell A generated electricity for forty years between 1966 and 2006.

19.2 This Plan proposal relates to the management of waste arising from the decommissioning of Sizewell A together with other waste from sister stations in accordance with national policy to share waste facilities. It is important to note that Sizewell A is already benefiting from sharing waste management facilities at Bradwell Nuclear Power Station in Essex. Whilst there are no such proposals at the present time to share facilities at Sizewell it is considered prudent to have policies in place if such a proposal is put forward in the future.

19.3 Lorries would access from the A12, which is classified as a Strategic Lorry Route in the Suffolk Lorry Route Network, via the B1122 which is classified as a Zone Distributor Lorry Route, and then onto the U2822 Lovers Lane and then onto the C228, which are classified as a Local Access Lorry Routes, before reaching the site access road.

19.4 The site is also rail linked although this is not currently used. The area of the site as included is 13.02 ha.

Development Plan and planning applications

19.5 There are no Suffolk Coastal District Council adopted or draft plan proposals that conflict with the proposed site. At the time of writing there are no known planning applications which affect the site

Highways

19.6 The existing access is considered adequate.

Landscape

19.7 Justification would be required for further development with the Suffolk Coasts & Heaths Area of Outstanding Natural Beauty (AONB).

Historic Buildings

19.8 No historic buildings would be affected.
Archaeology

19.9 The site is within an area of archaeological potential identified through information held on the County Historic Environment Record (HER). The vast majority of the site has been heavily disturbed by its current usage. However, there are islands of potentially undisturbed land, notably Hill Wood and the car park in the SE corner. It is possible that excavation to provide storage facilities in this area may require archaeological mitigation.

19.10 Proposed development within unaffected areas will require planning conditions to secure a programme of archaeological investigation, which will include assessment of, and provide mitigation strategies for, near surface archaeological potential, including Palaeolithic/ paleo-environmental potential.

Ecology

19.11 Potential impacts upon nature conservation interest including Suffolk Coasts & Heaths AONB need to be adequately assessed and where necessary mitigation proposed.

Air Quality

19.12 The Sizewell ‘A’ nuclear facility is currently in the process of decommissioning following its shut down in 2006. The process involves the treatment and storage of radioactive waste. The site has an Environmental Management Plan 2016/17 (May 2016) which includes mitigation measures relating to air quality and dust.

19.13 Air Quality near the site is currently good; Suffolk Coastal District Council have declared three Air Quality Management Areas, the closest of which is over 12km west of the proposed site. Sizewell Marshes SSSI is located approximately 35m from the site boundary at the closest point.

19.14 It is considered unlikely that any additional traffic generated by the decommissioning process (which is already underway) will exceed the thresholds defined within the IAQM/EPUK guidance, and therefore traffic emissions are unlikely to significantly increase local pollutant concentrations.

Noise

19.15 The site Environmental Management Plan includes mitigation measures relating to noise and vibration.

19.16 It is considered unlikely that any additional future traffic generated by the decommissioning process (which is already underway) will cause significant changes in noise at sensitive locations.
Public Rights of Way

19.17 Proposals should exclude the beach area including the public footpath unless there is an overriding need.

Floods

19.18 The site is at risk of surface water flooding in both 1 in 30 and 1 in 100 rainfall events. The site is located above a minor aquifer and is also shown to be at high/intermediate risk of groundwater flooding. This will have to be considered in any proposed development to the site.
Policy WS1: Sizewell A Nuclear Power Station

Development Proposals for the management of waste arising from the decommissioning of Sizewell A, together with other waste from sister stations in accordance with the national policy to share waste facilities, will be acceptable so long as the proposals adequately address the following:

a) a programme of archaeological investigation if the proposed development is located on an area of previously undisturbed land, which will include assessment of, and provide mitigation strategies for, near surface archaeological potential and Palaeolithic potential (at depth);
b) potential impacts upon nature conservation interest including likely adverse impacts (either individually or in combination with other developments) on the notified special interest features of Sizewell Marshes SSSI, Suffolk Shingle Beaches CWS, Minsmere-Walberswick Heaths & Marshes SSSI, Minsmere-Walberswick SPA/Ramsar, Sandlings SPA, Leiston-Aldeburgh SSSI, on European and UK protected species, UK priority species, and the preservation of the flora and fauna associated with the established sand dunes on Sizewell beach including protect species such as Adders, unless there is an overriding need;
c) potential impacts upon the detailed assessment of the impacts on the special qualities of the Suffolk Coasts & Heaths AONB and on the Suffolk Heritage Coast, and demonstration of the exceptional circumstances that justify development within the AONB;
d) mitigation of identified landscape and visual impacts and reinstatement which is in keeping with the local landscape character;
e) the preservation of the existing public rights of way on Sizewell beach unless there is an overriding need;
f) the safeguarding of existing pylons, and;
g) the protection of the underlying minor aquifer and proposal to mitigate the risk of groundwater flooding.

Proposals must also be generally in accordance with other policies of the development plan including the environmental criteria set out in Policy GP4.