

# Norfolk Minerals and Waste Local Plan

## Minerals Site Specific Allocations Development Plan Document (DPD) – Single Issue Silica Sand Review

### **Sustainability Appraisal Report – Part B: Amendments**

To be read in conjunction with the 'Sustainability Appraisal Report – Part B'  
dated March 2016

The following changes are required to the ‘Sustainability Appraisal Report – Part B’ (dated March 2016) due to the non-allocation of AOS A, amendments to the boundary of AOS D and the non-allocation of AOS D:

1. New Paragraph 5.4, as follows, with the following paragraphs to be renumbered:

Taking into account the results of the Sustainability Appraisal, the site and area of search assessments and representations made at the Pre-Submission stage, the boundary of AOS D was amended to reduce adverse impacts where possible. The boundary amendment resulted in AOS D being reduced by 24 hectares (from 109 hectares down to 85 hectares).

2. Assessment of Area of Search D (page 106)

Amending the boundary of AOS D results in changes to the Sustainability Appraisal for AOS D for objectives SA5, SA6, SA8 and SA12. The SA objectives SA3 and SA9 have been reassessed on the basis of the concerns raised about the Open Access Area designated under the CROW Act within AOS D. In addition, AOS D has been incorrectly assessed as being partially on Grade 3 agricultural land, when it is Grade 4 agricultural land, therefore objective SA10 has also been reassessed. These changes have also changed the text in the conclusion. Only the changed Sustainability Appraisal objectives are detailed below:

#### Area of Search D – Land in the vicinity of West Bilney Wood

Size of Area of Search: 409~~85~~ hectares

SA Objective	Comments	Assessment of Extraction Phase	Assessment of Post Extraction
SA3: To minimise noise, vibration and visual intrusion	The nearest residential property is approximately 250 metres from the area of search boundary. The holiday lodges at Pentney Lakes Leisure Park, are just within 250 metres of the AoS boundary. <u>There is a public footpath within the AoS and 53 hectares of the AoS (the Forestry Commission land) is designated as open access land under the Countryside and Rights of Way Act 2000.</u>	0  It is considered that noise and dust can be mitigated to acceptable levels within 250 metres. Silica Sand extraction is not expected to cause vibration. Any future planning application within the AoS will need to ensure that proposed extraction is appropriately screened to mitigate visual intrusion <u>both to residents and visitors.</u>	0  No effect post restoration.
SA5: To maintain and enhance the character of the townscape and historic environment	The nearest listed buildings is ‘Boss set into wall of farm building in garden to east of West Bilney Hall’ (335 metres away). There are 11 listed buildings within	- A Heritage Statement should be included in any future planning application, it is considered that appropriate mitigation to the settings of	- A mitigation strategy should ensure, the historic value of, assets is appropriately preserved. Mineral extraction will result in landscape change;

SA Objective	Comments	Assessment of Extraction Phase	Assessment of Post Extraction
	<p>2km of the AoS boundary.</p> <p>The closest Scheduled Monument is the remains of Pentney Priory at Abbey Farm 400 <b>nearly 900</b> metres from the AoS boundary. There are four Scheduled Monuments within 2km of the AoS boundary. There are no Registered Historic Parks and Gardens within 2km.</p>	<p>heritage assets should be possible, particular care will be needed around the remains of Pentney Abbey. Future applications should provide appropriate archaeological evaluation. Mitigation strategies may provide an opportunity to investigate heritage assets that would not otherwise take place.</p>	<p>however, an appropriate restoration scheme should ensure no unacceptable adverse impacts.</p>
<p>SA6: To protect and enhance Norfolk's biodiversity and geodiversity</p>	<p>The nearest internationally designated site is Roydon Common SAC and Ramsar site, which is nearly 7km from the area of search boundary.</p> <p>The River Nar SSSI is located approximately 430 <b>520</b> metres from the area of search boundary. East Winch Common SSSI is over 400 metres from the area of search and is water dependent.</p> <p>County Wildlife Site 429 South of West Bilney Warren is located <del>within the</del> <b>adjacent to the</b> AoS. CWS 431 Valetta Meadow is 120 <b>140</b> metres from the AoS and CWS 532 Pentney Lakes is 160 <b>170</b> metres from the AoS.</p>	<p>-</p> <p>No impacts are expected on Roydon Common SAC and Ramsar site.</p> <p>AOS D is within the hydrological catchment of both SSSIs, but is down gradient of East Winch Common SSSI. Due to the close proximity of the AOS to these SSSIs there is the potential for adverse impacts if mineral extraction operations cause changes to the water table. Mitigation measures will therefore be required.</p> <p><del>Extraction within the AoS could directly affect CWS 429, depending on the location of extraction within the AoS.</del> There could be adverse effects on the adjacent CWSs, depending on the location of extraction within the AoS and if extraction causes changes in the water</p>	<p><b>0</b></p> <p>No impacts are expected on Roydon Common SAC and Ramsar site.</p> <p>No impacts are expected post restoration.</p> <p>If the AoS is restored to nature conservation, including mixed deciduous woodland, there could be a biodiversity enhancement, <del>even if the existing CWS 429 is adversely affected during mineral extraction.</del></p>

SA Objective	Comments	Assessment of Extraction Phase	Assessment of Post Extraction
	<p>The nearest ancient woodland site is a PAWS and is located over 2.7km from the area of search boundary.</p> <p>The Head deposits of the AoS overburden are geodiversity priority features due to their method of formation.</p>	<p>table. Mitigation measures will be required.</p> <p>No impacts on ancient woodland are expected.</p> <p>There is the potential for sites within this area to contain other examples of geodiversity priority features under more recent deposits.</p>	<p>No impacts on ancient woodland are expected.</p> <p>There would be a preference for restoration to provide opportunities for further geological research of suitable exposures. However, this may not always be possible.</p>
<p>SA9: To contribute to improved health and amenity of local communities in Norfolk</p>	<p>There is a public footpath within the AoS. <u>53 hectares of the AoS (the Forestry Commission land) is designated as open access land under the Countryside and Rights of Way Act 2000.</u> The nearest residential property is 250 metres from the AoS boundary. The holiday lodges at Pentney Lakes leisure park is just within 250 metres of the AoS boundary.</p>	<p>0- =</p> <p>The potential effect of mineral extraction on health or amenity would depend on where an extraction site is located within the AoS. Due to the size of the AOS it may be possible to locate a site away from the footpaths, residential properties and Pentney Lakes. <u>Mineral extraction within the open access land would remove the open access during the extraction phase.</u></p>	<p>+0</p> <p><u>If mineral extraction takes place within the open access land, whether that open access is reinstated would depend on the restoration proposal. However, due to the depth of silica sand extraction restoration is likely to include lakes.</u> Depending on where a mineral extraction site is located within the wider AoS, there is the potential for new public footpaths to be provided on restoration.</p>
<p>SA10: To protect and enhance water and soil quality in Norfolk</p>	<p>The AOS is located over a principal aquifer and partially over secondary B and secondary undifferentiated aquifers; however, there are no Groundwater Source Protection Zones within the AoS.</p>	<p>- 0</p> <p>A Hydrological Risk Assessment will be required as part of any planning application within this AoS to ensure no unacceptable impacts on water resources from dewatering operations undertaken</p>	<p>0/-</p> <p>Subject to the findings of the Hydrological Risk Assessment, no effect on water resources is expected post extraction.</p>

SA Objective	Comments	Assessment of Extraction Phase	Assessment of Post Extraction
	<p>The AOS is in largely forestry use and is classified as non-agricultural and grade 4 &amp; 3 agricultural land. This land could potentially be Grade 3a which is classified within the Best and Most Versatile agricultural land.</p>	<p>to enable mineral extraction.</p> <p>Potential for <del>BMV agricultural land to be affected by mineral extraction within the AoS.</del> <u>No impacts on BMV agricultural soils.</u></p>	<p><u>No impacts on BMV agricultural soils.</u>—Due to the likely depth of silica sand extraction, the land is unlikely to be restored to agriculture. Therefore there could be a permanent loss of Grade 3a agricultural land post extraction, depending on the location of silica sand extraction.</p>
<p>SA12: To reduce the risk of current and future flooding at new and existing development</p>	<p>Approximately 48% <u>1%</u> of AOS D has a medium to high probability of flooding from rivers within the borough council SFRA. Within AOS D, 0.2% of the area has a high probability (greater than 1 in 30) of surface water flooding; <del>0.5%</del> <u>0.35%</u> of the area has a medium probability (between 1 in 30 and 1 in 100) of surface water flooding, and <del>3.6%</del> <u>2.7%</u> of the area has a low probability (between 1 in 100 and 1 in 1,000) of surface water flooding.</p>	<p>+ The majority of AOS D (<del>over 80%</del> <u>approximately 99%</u>) has a low risk of being affected by flooding from either rivers or the sea. Less than 1% of the area has a medium to high risk of being affected by surface water flooding. Silica sand extraction is considered to be a 'water compatible' land use which is suitable in all flood zones.</p>	<p>+ There is potential for restoration to involve the creation of water bodies to provide flood storage capacity.</p>
<p>Conclusion</p>	<p>The AOS scores well in terms of proximity to the existing processing plant at Leziate. <del>The majority</del> <u>Approximately 99%</u> of the area has a low risk of being affected by flooding from rivers, the sea, or surface water. There are potential negative effects on the historic environment, landscape and biodiversity. It is considered that these effects could be appropriately mitigated. There could be adverse impacts on the County Wildlife Sites located <del>within</del> <u>close to</u> the area of search, but potential positive effects on restoration. <del>There is the potential for a permanent loss of Grade 3a agricultural land, depending on where mineral extraction is located within the area of search.</del> <u>There could be a loss of open access land during mineral extraction and potentially also on restoration, depending on the location of mineral extraction within the AoS and the proposed restoration.</u> Silica sand extraction has positive economic impacts as it provides a raw material for glass manufacture.</p>		

### 3. Section 6.1 (page 145) Overall Effects of the Silica Sand Review

The amendments to the sustainability appraisal for AOS D would affect the table for AOS D as follows:

Ref:	SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8	SA 9	SA1 0	SA1 1	SA1 2	SA1 3
AOS D	0/+	-/0	0/0	0/?	-/-	-/0	0/+	-/-	0/+ <u>-/0</u>	-/0- <u>0/0</u>	+/0	+/+	+/0

### 4. Section 6.3 (page 146 and 147):

Not allocating AOS A and AOS D results in changes to the table, third paragraph and fifth paragraph of 6.3 as follows:

Reference	Size (hectares)	Allocated	Parishes
SIL01	21	Y	Bawsey
AOS A	328	<del>Y</del> <u>N</u>	Ingoldisthorpe, Snettisham and Dersingham
AOS B	240	N	Heacham and Snettisham
AOS C	65	N	Hillington and Fritcham with Appleton
AOS D	<del>109</del> <u>85</u>	<del>Y</del> <u>N</u>	East Winch and Pentney
AOS E	<del>816</del> <u>815</u>	Y	Wormegay, Shouldham, Marham, Shouldham Thorpe
AOS F	61	Y	Runcton Holme, Stow Bardolph
AOS G	34	N	Bawsey
AOS H	29	N	Bawsey
AOS I	47	Y	Runcton Holme, Shouldham Thorpe, Tottenhill
AOS J	23	Y	Tottenhill, Wormegay

The allocated areas of search and specific site cover a much larger area (1,405 946 hectares) than is required for silica sand extraction over the plan period to 2026 (approx. 40 hectares). This situation is to be expected due to the purpose and definition of areas of search. It is expected that no more than two additional sites will be needed over the plan period (to 2026) to meet the predicted ~~2.5~~ 0.68 million tonne shortfall in silica sand sites.

Whilst there are ~~six~~ four areas of search considered appropriate to allocate, covering 1,405 946 hectares, it is expected that only 40 hectares from within the areas of search would be required for silica extraction over the plan period to 2026. These sites could therefore both be developed within one area of search, or in two different areas of search located over ~~20~~ 6 kilometres apart. The existing silica sand extraction operations in Norfolk are located at East Winch and Middleton.

### 5. Areas of Search not allocated (page 147):

Add new first paragraphs to reflect that AOS A and AOS D are not allocated:

**AOS A – Due to its proximity to the Norfolk Coast AONB and the potential for views of AOS from within the AONB, it is considered that there is the potential for silica sand extraction within AOS A to affect the setting of the AONB and the landscape character of the area. Therefore AOS A is not allocated.**

**AOS D – 53 hectares of AOS D (the Forestry Commission land) is designated as open access land under the Countryside and Rights of Way Act 2000. Therefore the inclusion of this land within an area of search, when there are sufficient alternatives to meet the future need for silica sand in the Plan period, is considered to be contrary to paragraph 75 of the**

NPPF. The remaining northern part of AOS D (consisting of 23.4 hectares of land) is not designated under the CROW Act, but is not considered to be deliverable on its own. Therefore, AOS D is not allocated.

6. Allocated areas of search (pages 148 and 149):

Amend the following paragraphs to reflect that AOS A and AOS D are not allocated:

- a. Delete AOS A and AOS D from the first paragraph of this section, as follows:

Areas of search ~~AOS A, AOS D~~, AOS E, AOS F, AOS I and AOS J are allocated in the ~~Pre-Submission document~~ Silica Sand Review.

- b. Amend the first sentence of the sixth paragraph on page 148 as follows:

~~Four~~ Two of the allocated areas of search (~~AOS A, AOS D~~, AOS E and AOS F) scored negatively for potential effects on biodiversity (SA6) due to the location of County Wildlife Site (CWS) within or adjacent to the area of search.

- c. Amend the first three sentences of the third paragraph on page 149 as follows:

Areas of search ~~AOS D~~, AOS F, AOS I and AOS J are at low risk of flooding and therefore scored positively against reducing flood risk (SA12). 40% of AOS E and 70% of ~~AOS A~~ are is at medium to high risk of flooding from rivers or the sea. Therefore ~~these two~~ this areas of search scored negatively against reducing flood risk.

- d. Delete AOS A and AOS D from the fourth paragraph on page 149.

- e. Delete AOS A and AOS D from the list of allocated areas of search in the second paragraph on page 150

7. Potential cumulative or synergistic effects which could result from the Silica Sand Review (page 150)

Delete the following paragraphs about AOS A and AOS D because they are not allocated:

~~AOS A – the nearest mineral extraction site to this area of search is Snettisham carstone working. Due to the small scale of this carstone extraction operations cumulative effects are not expected.~~

~~**AOS D** – The southern part of the area of search is in close proximity to a current sand and gravel mineral working and an allocated sand and gravel site (MIN 19) which could therefore take place during the same time period and could use Common Lane for access. There is the potential for cumulative transport impacts, although the silica sand could also be transported to the processing plant by alternative means, such as the use of a pipeline. If road transport is used, as long as appropriate mitigation measures are followed, no adverse impacts are expected from individual silica sand extraction sites within these areas of search. If silica sand extraction were to take place in more than one area of search at the same time, there would be the potential for cumulative impacts. Any potential cumulative impacts would be mitigated by appropriate planning conditions.~~

Amend the paragraph about AOS E to remove references to AOS D, as follows:

The northern boundary of **AOS E** is located south of the River Nar, and the southern boundary of ~~**AOS D**~~ are located on opposite sides of the River Nar. North of the River Nar is a current sand and gravel extraction site and an allocated sand and gravel extraction site (MIN19). North of AOS E is a mothballed sand and gravel site. As long as appropriate mitigation measures are followed, no adverse impacts are expected from individual silica sand extraction sites within this ~~these~~ areas of search. If working was to take place simultaneously on ~~AOS D~~, the existing sand and gravel workings and AOS E there is the potential for cumulative impacts. However, ~~both AOS D and~~ AOS E is are significantly larger than the area of extraction required to meet the silica sand shortfall to the end of the plan

period, and therefore a number of alternative extraction locations are likely within ~~the~~ each area of search which could mitigate the potential for cumulative impacts. Any potential cumulative impacts would be mitigated by appropriate planning conditions.

**8. Amend assessment of Area of Search E (Page 112)**

Amend the second line of text to reflect the boundary change to AOS E as follows:

Size of Area of Search: ~~846~~ 815 hectares