

Norfolk Minerals and Waste Local Plan

Minerals Site Specific Allocations DPD –
Single Issue Silica Sand Review

Pre-Submission Representations Feedback Report

August 2016



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Norfolk County Council

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Contents page

	Page
Introduction	4
Modifications to the adopted Minerals Site Specific Allocations DPD	6
Representations on the Silica Sand Review as a whole	8
Site SIL01	11
AOS A	11
AOS D	43
AOS E	44
AOS F	46
AOS I	46
AOS J	46
Areas of Search Policy	46
Sustainability Appraisal	51
Habitats Regulations Assessment	51

Introduction

This document contains the main issues raised in responses to the Pre-Submission Representations period on the Single Issue Silica Sand Review of the Minerals Site Specific Allocations DPD. The representations period ran for six weeks from 16 May to 27 June 2016.

The table below details the number of responses received to each part of the document and each AOS.

Document section	Respondents	Objectors	Support	Object	Comment	Total representations
Modification to para 2.7	2	2	0	2	0	2
New paragraphs after 3.5	3	2	0	2	1	3
Modification to Para 3.18	1	0	0	0	1	1
Modification to Para 40.1	1	0	0	0	1	1
Whole document	13	4	1	4	8	13
Policy SIL01	3	0	1	0	2	3
AOS A	878	876	0	953	2	955
AOS D	3	2	0	2	2	4
AOS E	4	0	1	0	4	5
AOS F	2	0	0	0	2	2
AOS I	2	1	0	1	1	2
AOS J	2	1	0	1	1	2
Areas of search policy	6	3	0	4	5	9
Glossary	1	0	0	0	1	1
TOTAL	900	887	3	976	34	1010

The majority of respondents to the Silica Sand Review were individuals objecting to AOS A. Of the 953 representations received objecting to AOS A, 349 of these representations were standard letters and a further 420 were reasons given for signing an online petition about the Silica Sand Review. A petition, objecting to AOS A, was also received with 2,572 signatures.

The main issues raised in the representations from organisations and individuals, on each section of the Pre-Submission document, along with the Norfolk County Council's Planning Officer response, are contained in this report.

The following specific consultation bodies responded to the representations period:

- Borough Council of King's Lynn and West Norfolk (see report for issues raised)
- North Norfolk District Council (no comment)
- Suffolk County Council (no comment)
- Broads Authority (no comment)
- Central Bedfordshire Council (considers the plan legally compliant and sound and raises no objection)
- South Downs National Park Authority (see report for issues raised)
- Norfolk County Council as Local Highway Authority (no comment)
- Environment Agency (considers the plan legally compliant and sound and has no comment)
- Historic England (see report for issues raised)

- Natural England (commented on Sustainability Appraisal and Habitats Regulations Assessment – see report)
- Snettisham Parish Council (objected to AOS A – see report)
- Ingoldisthorpe Parish Council (objected to AOS A – see report)
- Dersingham Parish Council (objected to AOS A – see report)
- Heacham Parish Council (objected to AOS A – see report)
- Sedgeford Parish Council (objected to AOS A – see report)
- Holme-next-the-Sea Parish Council (objected to AOS A – see report)
- Middleton Parish Council (no comment)
- Anglian Water (commented on location of public water main within AOS F and AOS E – see report)

The following general consultation bodies responded to the representations period:

- Norfolk Coast Partnership (objected to AOS A – see report)
- Middle Level Commissioners (IDB) (no comment)
- Woodland Trust (welcomed the exclusion of land within 250 metres of ancient woodland)
- RSPB (commented on Areas of Search Policy – see report)
- Mineral Products Association (see report for issues raised)
- Sibelco UK (see report for issues raised)
- Tharros Ltd (own approx. 250 hectares of land within AOS E and are supportive of the proposals to extraction silica sand within AOS E)

Modifications to the adopted Minerals Site Specific Allocations DPD

Main Issues Raised	NCC Planning Officer response
Modification to existing paragraph 2.7	
<p>Sibelco objected and said that paragraph 2.7 should be amended to state “Planning applications for the extraction of silica sand are therefore directed to the allocated Areas of Search <u>and specific sites.</u>”</p> <p>South Downs National Park Authority (SDNPA) objected and said that the approach used to calculate the shortfall is not consistent with para 146 the NPPF and questioned the use of the previous 10 year sales average figures. SDNPA state that they are disappointed that Norfolk CC have not had any Duty to Cooperate discussions with them and may not have adequately co-operated with other authorities which may result in a failure to make an adequate contribution to the County’s need for silica sand.</p>	<p>The text will be amended to direct planning applications to both the allocated specific sites and Areas of Search.</p> <p>We consider that the Silica Sand Review is consistent with paragraph 146 of the NPPF. The purpose of the Silica Sand Review is to address the predicted shortfall in the quantity of silica sand extraction sites allocated in the Minerals Site Specific Allocations DPD, compared to the forecast need in Policy CS1 of the adopted Core Strategy, taking into account the most recent permitted reserve figure. Policy CS1 of the adopted Core Strategy is not being revised through the Silica Sand Review; this will be a matter for the review of the Core Strategy policies.</p> <p>The Silica Sand Review seeks to provide for all the identified demand for silica sand in the adopted Norfolk Minerals and Waste Core Strategy from within the Norfolk Mineral Planning Authority area, through the allocation of specific sites and areas of search. Therefore there is no requirement for another Minerals Planning Authority to help meet Norfolk's demand for silica sand for the feedstock for the processing plant at Leziate. Therefore we do not consider that there are any strategic cross-boundary planning issues between Norfolk County Council and the South Downs National Park Authority regarding the Silica Sand Review.</p>
Modification to add paragraphs after existing 3.5	
<p>Mineral Products Association said that the use of separation distances to define areas of search may unnecessarily sterilise the mineral. The text should be changed to clarify that the distances used to define the areas of search are not stand-off distances for the purposes of development control. Any application partly or wholly within these areas would be considered on its own merits, subject to the findings of any EIA.</p> <p>Sibelco said that there is no justification for the stand-off distances from SSSIs, ancient woodland, heritage assets and sensitive receptors, used to define the areas of search. They state these separation distances will needlessly sterilise the mineral. The distances used should be reconsidered and the text</p>	<p>The silica sand resource which is not included within the Areas of Search is still within a Minerals Safeguarding Area and has not been sterilised by its exclusion from the Areas of Search. It is recognised that any application partly or wholly within these areas would be considered on its own merits, subject to the findings of any EIA. It is not considered necessary to amend the text in this regard.</p> <p>The justifications for the distances from planning constraints that have been used to define the areas of search were included in the Preferred Options Consultation document in 2015. The distances used are those at which we consider that potential impacts could be mitigated to acceptable levels with the minimum of controls, as there is no detail currently available regarding</p>

Main Issues Raised	NCC Planning Officer response
<p>should be changed to clarify that separation distances are a matter for site specific assessment at the planning application stage.</p> <p>Historic England stated that Paragraph 3.5 (g) 250 metres excluded area around a heritage asset is considered unsound. This is not consistent with paragraph 132 of the NPPF which deals with setting as a component of significance and the NPPF glossary definition accepts setting is not fixed. This renders a 250 metre fixed setting as at variance with this policy. To make this sound Paragraph 3.5 (g) of the modifications to the adopted plan should be amended to say that the areas of search were defined using the following methodology at (g) to include “designated heritage assets (listed buildings, scheduled monuments, registered historic parks and gardens, conservation areas) and their settings beyond a minimum threshold of 250m”</p> <p>Historic England also stated that setting requires an assessment on a site by site basis and a 250 metre minimum buffer (i.e. exclusion) around a heritage asset is inflexible and avoids any consideration of site specific merits. We support the avoidance of impact based upon an understanding of significance and appreciate that a buffer zone seeks to achieve this. The issue, however, is that this avoids a robust assessment of setting. The GPAN 3 (The Setting of Heritage Assets) sets out a staged approach in the assessment of impact upon significance.</p>	<p>potential extraction sites and operations within the areas of search. Therefore the areas of search are those parts of the resource that are the least constrained, and where a suitable planning application for silica sand extraction may be approved. It is recognised that at a planning application stage, when detailed assessments have been produced as part of an Environmental Statement, mineral extraction may be considered suitable at closer distances on a case-by-case basis. The silica sand resource which is not included within the Areas of Search is still within a Minerals Safeguarding Area and has not been sterilised by its exclusion from the Areas of Search.</p> <p>An area of 250 metres around designated heritage assets has been excluded from the areas of search. As stated in the Preferred Options Consultation document, this 250 metre area is not intended to be the setting of the heritage asset and it is recognised that the extent of the setting of each heritage asset will be different and may extend more or less than 250 metres from the heritage asset. It is recognised that the setting of a heritage asset contributes to the significance of the heritage asset. The 250 metre stand-off is considered as a starting point for the consideration of setting. Any subsequent planning application for an extraction site within an area of search would need to provide a Heritage Statement if the proposal could potentially impact upon a heritage asset or its setting, which would provide the necessary detail. This requirement is included within the Areas of Search Policy.</p> <p>We are therefore unable to change the text as requested by Historic England, because the requested modification is not the methodology that was used to define the areas of search.</p>
<p>Modification to existing paragraph 3.18</p>	
<p>The Borough Council of King’s Lynn & West Norfolk said there is a need to ensure that any planning permission within the specific site and the Areas of Search do not cause a breach of National Objectives for Air Quality or EU Limit values due to mineral extraction or</p>	<p>Noted. The Areas of Search Policy and the Specific Site Policy SIL01 require an air quality assessment to be submitted with a planning application for silica sand extraction. It is considered that this policy requirement will ensure that any planning permission within the specific</p>

Main Issues Raised	NCC Planning Officer response
associated transport.	site and the Areas of Search do not cause a breach of National Objectives for Air Quality or EU Limit values.
Modification to existing paragraph 40.1	
The Borough Council of King's Lynn and West Norfolk said that whilst the areas of search have been defined by excluding land within 250 metres of sensitive receptors, paragraph 40.1 refers to residential properties on Gayton Road within 10 metres of the site boundary of MIN40.	This modification to paragraph 40.1 is to make reference to the correct road name. Site MIN 40 is already allocated in the adopted Minerals Site Specific Allocations DPD for silica sand extraction. Whilst the site boundary is 10 metres from a residential property, the mineral working is expected to be over 60 metres from the residential property at the nearest point.

Representations about the Silica Sand Review as a whole

Main Issues Raised	NCC Planning Officer response
<p>Individuals objected to the Silica Sand Review for the following reasons:</p> <ul style="list-style-type: none"> • The six week representations period was too short and the publicity was not effective. Complaints about the timing of the representations period near the EU referendum, Queen's Birthday and Euro 2016. • The proposals for 1,384 hectares within the areas of search is not proportionate to meet the estimated shortfall of 2.6 million tonnes of silica sand over the next ten years, which NCC equates to an area of 40 hectares. • The two existing mine sites that have been excluded could have provided the required 20 hectares. 	<p>There have been two previous public consultation periods on the Silica Sand Review in addition to the formal representations period. Public consultation took place for six weeks in March-April 2015 (Initial Consultation), and six weeks in November-December 2015 (Preferred Options), in addition to the Representations period (May-June 2016). The consultation periods were advertised in accordance with the regulations, and this included correspondence with all Parish Councils in Norfolk. The regulations set out that six weeks is an appropriate period for the representations period prior to the submission of a planning document for examination. The representations period took place as soon as possible after agreement has been received at the relevant County Council meetings.</p> <p>The 1,384 hectares of areas of search which are allocated in the Pre-Submission document are the result of the methodology used to define the least constrained areas of the Leziat Beds silica sand resource in planning terms. There is no guarantee that operators or landowners are interested in developing within the areas of search for silica sand extraction. This is the reason why areas of search are much larger than the actual area of land that is expected to be required for extraction during the plan period, to 2026.</p> <p>Existing permitted reserves have been taken into account in calculating the shortfall in allocated sites for silica sand extraction. As stated in paragraph 1.17 of the Pre-Submission document Areas of Search G and H are each less than 20 hectares in size and the minimum size that is considered to be deliverable as an area of search is 20 hectares. In addition, as there is</p>

Main Issues Raised	NCC Planning Officer response
<ul style="list-style-type: none"> The six new areas of search have been included using only the absolute minimum legal distances from strategic sites of archaeological, environmental, employment (tourism) and population importance. Due to the size of the areas of search compared to the amount of land needed additional safeguards could have been incorporated. Due to the health concerns about silica sand and links to silicosis the Silica Sand Review is an unwarranted infringement of Article 2 (right to life), Article 8 (respect for your private and family life, home and correspondence) and protocol 1 (right to peaceful enjoyment of your property) of the Human Rights Act of the several thousand local residents as it is not necessary and proportionate. 	<p>no certainty that Areas of Search G and H would be developed for future silica sand extraction, additional areas of search would also need to be allocated to meet the identified shortfall in silica sand extraction sites during the plan period to 2026.</p> <p>There are no minimum legal distances between these planning constraints and silica sand extraction. The reasons for the methodology used to define the areas of search are contained in the Preferred Options Consultation document. Following the Preferred Options Consultation, the boundaries of a number of areas of search were amended to take into account consultee comments. It is considered that, in principle, silica sand extraction could take place on a smaller parcel of land within the areas of search without unacceptable adverse impacts. Based on the information in the Area of Search assessments, it is considered that applying the adopted Minerals and Waste Core Strategy and Development Management Policies, together with the Areas of Search Policy, at the planning application stage, would ensure no unacceptable adverse impacts would occur. Therefore increasing the distance of the area of search boundaries from the planning constraints used to define the areas of search would not further reduce the potential impact of a silica sand extraction site on those constraints.</p> <p>The extraction of silica sand does not generate significant quantities of dust. The sand is generally damp on extraction, there are not large quantities of smaller particles within the sand. Silica dust is usually generated from operations which work stone, such as stone masonry, demolition, or blasting operations at hard rock quarries where stone is pulverised. None of these operations would take place at silica sand extraction sites in Norfolk. The Health and Safety Executive have stated that <i>“Silicosis is a disease that has only been seen in workers from industries where there is a significant exposure to silica dust, such as in quarries, foundries, the potteries etc. No cases of silicosis have been documented among members of the general public in Great Britain, indicating that environmental exposures to silica dust are not sufficiently high to cause this occupational disease.”</i> There has been considerable case law in relation to the Human Rights Act and its effect on planning. The courts have considered that the planning system allows for an individual's human rights to be considered and therefore does not result in a breach. A grant of planning permission may infringe those rights but they are qualified rights, which is that they can be balanced against the economic interests of the community as a</p>

Main Issues Raised	NCC Planning Officer response
<ul style="list-style-type: none"> <li data-bbox="118 434 687 600">• The impact of mining for frack sand in Wisconsin causing very fine silica sand dust to blow over pastures and cause respiratory problems for local residents. <li data-bbox="118 875 687 936">• The effect on landscape and tourism from mineral extraction. <li data-bbox="118 1514 687 1615">• The impact of vehicle movements from extraction areas to the processing plant. <li data-bbox="118 1890 687 2018">• Concerns about restoration of sites with reference to Bawsey Pits in terms of water quality, safety and anti-social behaviour. 	<p data-bbox="687 230 1445 427">whole and the human rights of other individuals. In making that balance it may also be taken into account that the amenity of local residents could be adequately safeguarded by conditions albeit with the exception of visual amenity. In this case it is not considered that the human rights of local residents would be infringed.</p> <p data-bbox="687 465 1445 869">The purpose of the Silica Sand Review is not to provide sand for use in fracking. The silica sand in the Leziate Beds is potentially suitable for glass making dependent on detailed borehole information at a site level, but is unsuitable for use as a 'frac sand' because of its grain shape. The view of the HSE is that the working of silica sand does not cause a health risk to the general public. The differences in working practices, planning requirements and climatic conditions make comparisons between Wisconsin and Norfolk problematic and the HSE provides UK specific guidance.</p> <p data-bbox="687 907 1445 1503">The Areas of Search Policy requires a Landscape and Visual Impact assessment to be submitted with any planning application for silica sand extraction within an area of search. The LVIA would identify potential landscape impacts together with suitable mitigation measures to address the impacts. It is considered that, in principle, silica sand extraction could take place on a smaller parcel of land within the areas of search without unacceptable adverse impacts. Based on the information in the Area of Search assessments, it is considered that the adopted Minerals and Waste Core Strategy and Development Management Policies, together with the Areas of Search Policy would be appropriate for addressing these issues at the planning application stage. Restoration of mineral workings can provide positive enhancement to the environment and tourism, such as at Pensthorpe Natural Park and Whitlingham Country Park.</p> <p data-bbox="687 1541 1445 1877">The Areas of Search Policy contains a requirement for a Transport Assessment or Statement to be submitted with any future planning application for silica sand extraction within an area of search, in accordance with adopted policy DM15. It would be for the case officer, determining any future planning application, to consider what level of vehicle movements from the extraction site would be appropriate, based on a Transport Assessment and in consultation with the Highway Authority.</p> <p data-bbox="687 1915 1445 2040">The restoration of mineral extraction sites is a key component of modern planning applications and a restoration plan would need to be agreed as part of such an application and would form part of the planning</p>

Main Issues Raised	NCC Planning Officer response
	<p>conditions of any subsequent permission to ensure compliance. There are a number of historic extraction sites in Norfolk which were granted permission before such conditions formed part of the planning system (prior to the 1980s). Most of the Bawsey Pits were the subject of an Interim Development Order planning permission given in 1947 and were largely excavated by the 1970s. It is important therefore to compare potential restoration with previously worked sites which have benefited from a restoration plan. Restoration plans for mineral workings can provide positive enhancement to the environment and tourism, such as at Pensthorpe Natural Park and Whitlingham Country Park.</p>

Specific Site Policy SIL01

Main Issues Raised	NCC Planning Officer response
<p>Sibelco supports the inclusion of site SIL01 for future silica sand supply.</p> <p>Historic England recommended the inclusion of non-designated heritage assets in paragraph S.2. Historic England recommended additional text in the policy “The LVIA will include Scheduled Monuments and Listed Buildings and archaeological assets <u>and non-designated assets as affected</u> and their settings, together with suitable mitigation measures to address the impacts <u>and conserve the significance of those assets.</u>”</p>	<p>Noted</p> <p>We do not consider it necessary to change the wording of the supporting text, but the policy wording will be amended as requested to include reference to non-designated heritage assets.</p> <p>The policy wording will be amended as requested.</p>

AOS A - Land west of Snettisham, Ingoldisthorpe and Dersingham

Main Issues Raised	NCC Planning Officer response
<p>Norfolk Coast Partnership objected due to the great diversity of constraints to development for mineral extraction identified. These include:</p> <ul style="list-style-type: none"> - the very open, isolated and rural character of the landscape which would make it very difficult to manage landscape impacts, including on the setting of the nearby Norfolk Coast AONB and nearby designated historic assets - the existence of important but as yet only partially understood historic heritage features - the existence of important but not fully documented geological features - the proximity of County Wildlife sites - the risk of coastal flooding, particularly in extreme events which are predicted to become more frequent as an effect of global climate 	<p>These constraints are discussed in the assessment of AOS A in the Pre-Submission document. We consider that the issues raised regarding the historic environment, geology, County Wildlife Sites, flood risk, hydrology and the River Ingol could be appropriately dealt with at the planning application stage and that the adopted Minerals and Waste Core Strategy and Development Management Policies, together with the Areas of Search Policy would be appropriate for addressing the issues raised in this representation.</p> <p>However, based on the representations from the Norfolk Coast Partnership and the Borough Council of King’s Lynn and West Norfolk and due to the proximity of AOS A to the Norfolk Coast AONB and the potential for views of AOS A from</p>

Main Issues Raised	NCC Planning Officer response
<p>change - potential impacts on the River Ingol and local hydrology There is also very significant local concern and opposition to allocation of this AoS. All of this makes it very likely that any application for mineral extraction within this AoS would be very problematical and unlikely to be successful. It would not be effective to encourage potential developers to consider applying for planning permission in these circumstances.</p>	<p>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 considered to be the least preferable area of search for silica sand extraction and it is recommended that it is not allocated in the Silica Sand Review.</p>
<p>The Borough Council of King's Lynn and West Norfolk said that due to the sensitivities regarding the landscape and natural and historic environment at this location and the potential impact on tourism, it is important that effective public consultation is conducted for any forthcoming planning application in conjunction with a site specific HRA.</p>	<p>Norfolk County Council's Statement of Community Involvement and relevant legislation would be met for consultation on any future planning application within this Area of Search. The Local List for Validation of Planning Applications requires all major planning applications to demonstrate that the views of the local community have been sought on the application at the pre-application stage and how they have been taken into account. Natural England have also advised that a site specific HRA would be required for AOS A.</p>
<p>Historic England said that paragraph A.4 should be amended to also include reference to historic landscape studies/ characterisation work / archaeological studies. We specifically seek this qualification because of the large size of AOS A and the high levels of archaeological deposits and the relationship between them (i.e. their historic context).</p>	<p>We do not consider it necessary to amend paragraph A.4. The supporting text already states that, at the planning application stage, a Heritage Statement assessing the setting of heritage assets will be required and an assessment of the significance of archaeological deposits will be required. The Areas of Search Policy requires a Heritage Statement, an archaeological assessment and a Landscape and Visual Impact Assessment at the planning application stage. These documents are also required as part of the Local List of Validation of Planning Applications and would meet the requirements of the additional text proposed by Historic England.</p>
<p>Holme-next-the-Sea Parish Council objected on the basis of the representations made by Snettisham Parish Council at the Preferred Options stage, as follows: The area relies principally on tourism and the peace and quiet is a main contributor to this. There are wildlife sites, designated areas, Commons, footpaths with views over open landscapes, all of which draw people to the area. 250 metres as an implied proximity delineator may be acceptable in urban, hilly or developed areas, but when the whole area under consideration has a flat, open aspect, this is nonsense. Mitigating features for</p>	<p>AOS A does not contain any County Wildlife Sites, Common Land, or any heritage or environmental designations. The existing permissive bridleway within AOS A is discussed below. The boundaries of AOS A are at least 250 metres from the nearest properties, whilst Snettisham, Dersingham and Ingoldisthorpe are on the opposite side of the A149 and views across are limited by roadside vegetation and enclosed fields. The land within AOS A which is closer to the A149 is less tranquil due to traffic noise. 250 metres represents the distance at which amenity impacts, such as noise and dust,</p>

Main Issues Raised	NCC Planning Officer response
<p>landscape, noise and dust would have as much impact as the development itself.</p> <p>Any development would detract from the Norfolk Coastal Path Trail along the beach, as the view from the footpath is from a point higher than any of the land in AOS_A. There is already much access across the area, even where not on recognised PRoWs, which would be limited by development.</p> <p>There is a huge variety of wildlife in the area and the world-renowned RSPB Snettisham reserve. One of the most extraordinary natural history spectacles in Britain is the overflying by vast flocks of birds over the whole area - any disturbance of this would be of great concern. The birds are not restricted to the RSPB site itself. "Likely significant effects" is how this is described; Council believes that is too great a risk.</p> <p>Archaeological features are not adequately addressed.</p>	<p>could be mitigated to acceptable levels with the minimum of controls. The Areas of Search Policy requires a planning application within an area of search to include a Landscape and Visual Impact Assessment, together with suitable mitigation measures.</p> <p>Views of AoS A from Snettisham Beach, and RSPB Snettisham are long distance views, which as a result of the existing wooded areas to the west of the AoS and the low levels of viewpoints, even from the flood defence bank, would be both limited and capable of additional screening without this being intrusive in its own right. There are no Public Rights of Way within AoS A. Dersingham BR2a, a bridleway, runs close to the southern boundary, and Snettisham FP35, a footpath, runs approximately 1.3 km west of the western boundary of the AoS. A permissive bridleway exists on the southeastern corner of AOS A close to the A149 and is accessed from BR2a. This is referred to by Natural England as Warren Farm A, and is a circular path of approximately 2.4km. It is not considered that this would either prejudice the potential for extraction on parts of AOS A, or that users would be subject to unacceptable adverse impacts given normal planning controls. The permissive bridleway was designated in 2010 and permission ends on the 31 January 2020.</p> <p>If a planning application is made for silica sand extraction within AOS A, a Biodiversity Survey and Report would need to be submitted. The Areas of Search policy also requires a planning application for silica sand extraction within an area of search to include a protected species assessment and if protected species are found on the proposed extraction site then the appropriate mitigation will be required. The Habitats Regulations Assessment considered the potential for likely significant effects on the designated bird species of The Wash Ramsar and SPA, due to disturbance and potential loss of functional habitats. The conclusion is that there would be no adverse effects on the integrity of The Wash SPA and Ramsar site from a silica sand extraction site located within AOS A and Natural England agrees with this conclusion.</p> <p>Paragraph A.4 of the Pre-Submission document discusses archaeology. The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to</p>

Main Issues Raised	NCC Planning Officer response
<p>We have concerns over the increasing interruptions to traffic flow on the A149 which are occurring along this entire route, this being the one remaining open stretch of road between Lynn and the Coast.</p> <p>Flood Risk: The future of this area has been put in jeopardy by recent changes to the funding of sea defences. Residents are now being asked to fund the sea defences themselves. There is prohibition on new build allowed in the area. The speed of flows in the event of a breach of flood defences would be higher were there holes into which flood water could flow. As the site at highest flood risk it should be avoided at all costs.</p> <p>In conclusion, we are totally opposed to any inclusion of AOS_A in the Allocations Plan. We believe it to have no positive aspects at all. On the contrary we feel its certain impact on the local population, wildlife and general environment would be catastrophic, and its probable impact on the economy, transport, access, flooding and a range of other concerns make this the most unsuitable site for a large industrial development.</p>	<p>include an archaeological assessment; this may initially be desk-based, but may need to be followed up with field surveys and trial-trenching. The archaeological assessment will suggest appropriate mitigation measures, and be compliant with Policy DM9 of the Norfolk Minerals and Waste Core Strategy.</p> <p>The Highway Authority considers that access could be achieved into the A149 subject to junction mitigation and highway network improvements.</p> <p>Silica sand extraction is considered, in the National Planning Practice Guidance, to be a 'water compatible' land use which is suitable in all flood zones. If a planning application is made for silica sand extraction within the area of search a site specific flood risk assessment (FRA) would need to be submitted. The FRA would need to demonstrate that extraction of minerals in this location would not increase flood risk elsewhere. The Areas of Search Policy requires that, within allocated areas of search, a sequential approach to development should be taken. Ensuring that a mineral extraction site is suitable in flood risk terms would be the responsibility of the applicant. The potential exists on restoration for any former workings to be used as temporary floodwater storage areas, diverting excess water away from more vulnerable forms of development.</p> <p>Silica sand extraction has taken place in Norfolk for many years without such unacceptable adverse impacts occurring. Based on the information in the Area of Search assessments, it is considered that the adopted Minerals and Waste Core Strategy and Development Management policies, together with the Areas of Search Policy would be appropriate for addressing the issues raised in this representation. Restoration of mineral workings can provide positive enhancement to the environment and tourism.</p>
<p>Snettisham Parish Council objected for the following reasons: The large total area of search proposed compared to the amount of land required. The remaining areas of those currently under use would surely cover the ten-year supply requirement.</p>	<p>The 1,384 hectares of areas of search which are allocated in the Pre-Submission document are the result of the methodology used to define the least constrained areas of the Leziat Bedd silica sand resource in planning terms. There is no guarantee that operators or landowners are interested in developing within the areas of search for silica sand extraction. This is the</p>

Main Issues Raised	NCC Planning Officer response
<p>The proximity of SSSIs, AONBs, Ramsar and other sites of interest which virtually surround AOS A should be considered cumulatively. Inclusion of land in an AoS is almost planning approval from NCC.</p> <p>Difficulty in registering objections on the e-consultation website, including the need to register your details prior to making a representation.</p> <p>Lack of awareness of landowners within the AoS that their land was included.</p> <p>Over 30,000 visitors visit RSPB site in the summer as well as considerably more visitors to the beach. This needs to be added to the local population affected by the proposals.</p>	<p>reason why areas of search are much larger than the actual area of land that is expected to be required for extraction during the plan period, to 2026. Existing permitted reserves have been taken into account in calculating the shortfall in allocated sites for silica sand extraction. The existing permitted reserve at the end of 2015 was 3.5 years.</p> <p>The potential effects on the AONB and The Wash (SPA, Ramsar, SAC and SSSI), which are in proximity to AOS A have been taken into account in the area of search assessment, as detailed in the Pre-Submission document. Inclusion of land within an AoS is not planning approval. A planning application would need to be submitted for any mineral extraction site proposed within an area of search and would be determined in accordance with the relevant local and national planning policies and legislation.</p> <p>The requirement to register details on the e-consultation system prior to making a representation is to ensure that all comments are correctly linked to an individual or organisation. As stated in all correspondence about the Silica Sand Review representations could also be received by letter and email.</p> <p>The two previous consultation periods and the Pre-Submission representations period were advertised in accordance with the regulations, and this included correspondence with all Parish Councils in Norfolk. There is no requirement for landowners to be contacted when Areas of Search are defined. Indeed, part of the reasoning behind areas of search is that they are larger areas than would be required for extraction, to take into account the potential that not all landowners within the area would be willing for mineral extraction to take place on their land. Whether a particular parcel of land within an Area of Search would come forward as a potential planning application for an extraction site would be a commercial decision between the landowner and a mineral operator.</p> <p>The boundary of AOS A is over 1km from the RSPB site and over 1.2km to the beach. Seasonal increases in population would not be a factor because well-designed mineral extraction proposals which comply with the adopted Minerals and Waste Development Management policies would appropriately mitigate potential</p>

Main Issues Raised	NCC Planning Officer response
<p>Use of the word 'settlements' in the document does not suggest three villages with over 8,000 inhabitants.</p> <p>High water table implies that the sand extracted would be wet. If transported wet this would lead to more lorries than estimated 200 a day. If dried on site this would be intrusive and noisy.</p> <p>Pollution from HGV traffic.</p> <p>Potential effect of extraction on water flow underground leading to subsidence of the A149.</p> <p>Concern about impact of HGV traffic being diverted through villages if there is an accident on A149. Additional 1000 homes planned from Dersingham to Hunstanton will add traffic to A149. Existing difficulties for emergency vehicles to get to the QE Hospital. A site in AOS A would not have direct access to the primary route network. There is a policy not to upgrade the A149.</p>	<p>impacts to landscape, transport and amenity (such as noise, dust etc.) such that it is considered that no unacceptable adverse impacts would occur regardless of the size of the local population.</p> <p>The term 'settlement' is a recognised planning term used to refer to all sizes of settlement within a 'settlement hierarchy', from hamlets to cities.</p> <p>The sand is likely to be extracted damp. The sand would not be dried on site. The number of vehicle movements is not known at this stage.</p> <p>An Air Quality Assessment will be required to be submitted with any planning application within an Area of Search in accordance with the Areas of Search Policy, together with suitable mitigation measures to address potential impacts.</p> <p>It is considered that silica sand extraction could take place without unacceptable adverse impacts occurring. The potential for impacts on the water table (hydrology) from mineral extraction are considered for all potential mineral extraction sites at the planning application stage and appropriate mitigation measures put in place when necessary. A Hydrogeological Risk Assessment is required to be submitted with any planning application where the potential for impacts exists. Measures to mitigate impacts could include wet working, or by use of artificial recharge techniques if necessary to protect water-sensitive features from the effects of any dewatering.</p> <p>The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include a Transport Assessment or Statement which considers the potential for transport impacts and identifies appropriate mitigation measures to address these impacts. There is an average of just over 15,700 traffic movements each day on the A149 between Knights Hill and Snettisham. Average daily traffic movements along this section of the A149 varies across the year; August records the highest with just over 19,000 average daily traffic movements (a 21% increase on the annualised figure), and the lowest is recorded in January at just over 12,250 traffic movements (a 22% decrease). It would be for the case officer, determining any future planning application for silica sand extraction, to consider what level of vehicle</p>

Main Issues Raised	NCC Planning Officer response
<p>Concern about silica dust being blown over the village and potential health risks.</p> <p>There is an uninterrupted view of 2.5km or more across AOS A from the A149 to the sea and any interruption would be more than intrusive.</p> <p>We have evidence of the presence of rare wildlife in the area which have various degrees of protected status including birds of prey (e.g. marsh harriers) and small mammals (eg water voles). A precautionary approach should be taken to protect the wildlife.</p>	<p>movements from the extraction site would be appropriate, based on a Transport Assessment and in consultation with the Highway Authority. However, the Highway Authority considers that an acceptable technical solution could be found in principle. Many consultation responses included a figure of 400 additional vehicle movements (200 each way). This level of movements would result in a 2.5% increase on the average daily traffic movements, a 2.1% increase in August, and a 3.3% increase in January. This means that any additional traffic movements would be well within normal seasonal fluctuations on this road. Minerals can only be extraction where they occur, therefore many mineral extraction sites in Norfolk do not have direct access to the primary route network.</p> <p>The extraction of silica sand does not generate significant quantities of dust. The sand is generally damp on extraction, there are not large quantities of smaller particles within the sand. Silica dust is usually generated from operations which work stone, such as stone masonry, demolition, or blasting operations at hard rock quarries where stone is pulverised. None of these operations would take place at silica sand extraction sites in Norfolk. The Areas of Search Policy requires any planning application within an area of search to submit an air quality assessment together with mitigation measures to address any potential impacts. The boundaries of all the areas of search are at least 250 metres from the nearest residential dwellings because this represents the distance at which amenity impacts, such as noise and dust, could be mitigated at source to acceptable levels with the minimum of controls.</p> <p>There is not an uninterrupted view from the A149 across AOS A because there is vegetation in the form of hedges and trees along the A149. Therefore there would not be a view of AOS A from the A149 itself. There are also blocks of trees and field boundaries within AOS A.</p> <p>If a planning application is made for silica sand extraction within AOS A, a Biodiversity Survey and Report would need to be submitted. The Areas of Search policy also requires a planning application for silica sand extraction within an area of search to include a protected species assessment and if protected species are found on the proposed extraction site then the appropriate</p>

Main Issues Raised	NCC Planning Officer response
<p>Potential loss of jobs in the tourist sector would outweigh any potential gains in the site itself.</p> <p>Would like an inquiry on AOS A to be held locally.</p>	<p>mitigation will be required. The Habitats Regulations Assessment considered the potential for likely significant effects on the designated bird species of The Wash Ramsar and SPA, due to disturbance and potential loss of functional habitats. The conclusion is that there would be no adverse effects on the integrity of The Wash SPA and Ramsar site from a silica sand extraction site located within AOS A and Natural England agrees with this conclusion.</p> <p>Well-designed mineral extraction proposals which comply with the adopted Minerals and Waste Core Strategy and Development Management policies would appropriately mitigate potential impacts to landscape and amenity (such as noise, and air quality) such that it is considered that no unacceptable adverse impacts would occur that would be likely to compromise the attractiveness of the area for tourism. Positive restoration benefits for tourism may occur in the medium-long term, as has happened at other former mineral workings in Norfolk, such as Pensthorpe Natural Park. RSPB Snettisham is an area of previous mineral workings, the water bodies covering an area of approximately 27 hectares, these provide positive ecological and tourism benefits. Views of AoS A from Snettisham Beach, and RSPB Snettisham are long distance views, which as a result of the existing wooded areas to the west of the AoS and the low levels of viewpoints, even from the flood defence bank, would be both limited and capable of additional screening without this being intrusive in its own right.</p> <p>The examination of a Local Plan by an independent Planning Inspector often includes public hearing sessions. The form of the examination is determined by the Planning Inspector. This is not the same as a public inquiry which is undertaken in the determination of planning applications or planning appeals in certain circumstances.</p>
<p>Heacham Parish Council objected for the following reasons: Any access on to the A149 will have a serious adverse impact on a very busy main road especially during the summer months when it is not unusual for coastal traffic to be queued back to the south past the Dersingham Roundabout. Silica sand extraction will lead to a huge increase in the number of HGVs travelling in both directions every day. This will have a serious effect on the tourist industry in</p>	<p>The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include a Transport Assessment or Statement which considers the potential for transport impacts and identifies appropriate mitigation measures to address these impacts. There is an average of just over 15,700 traffic movements each day on the A149 between Knights Hill and Snettisham. Average daily traffic movements along this section of the A149 varies</p>

Main Issues Raised	NCC Planning Officer response
<p>Snettisham, Heacham, Hunstanton and other settlements around the North Norfolk coast.</p> <p>Extraction on the scale planned will have a detrimental effect on the wildlife and birds for many years to come with possibly no return.</p> <p>The extraction and refining of Silica Sand is hazardous. The prevailing south westerly wind means any dust or other particles will have a detrimental effect on all the communities to the north of the site.</p>	<p>across the year; August records the highest with just over 19,000 average daily traffic movements (a 21% increase on the annualised figure), and the lowest is recorded in January at just over 12,250 traffic movements (a 22% decrease). It would be for the case officer, determining any future planning application for silica sand extraction, to consider what level of vehicle movements from the extraction site would be appropriate, based on a Transport Assessment and in consultation with the Highway Authority. However, the Highway Authority considers that an acceptable technical solution could be found in principle. Many consultation responses included a figure of 400 additional vehicle movements (200 each way). This level of movements would result in a 2.5% increase on the average daily traffic movements, a 2.1% increase in August, and a 3.3% increase in January. This means that any additional traffic movements would be well within normal seasonal fluctuations on this road.</p> <p>If a planning application is made for silica sand extraction within AOS A, a Biodiversity Survey and Report would need to be submitted. The Areas of Search policy also requires a planning application for silica sand extraction within an area of search to include a protected species assessment and if protected species are found on the proposed extraction site then the appropriate mitigation will be required. The Habitats Regulations Assessment considered the potential for likely significant effects on the designated bird species of The Wash Ramsar and SPA, due to disturbance and potential loss of functional habitats. The conclusion is that there would be no adverse effects on the integrity of The Wash SPA and Ramsar site from a silica sand extraction site located within AOS A and Natural England agrees with this conclusion.</p> <p>Silica sand is an inert material and is not hazardous. The extraction of silica sand does not generate significant quantities of dust. The sand is generally damp on extraction and there are not large quantities of smaller particles within the sand. Silica dust is usually generated from operations which work stone, such as stone masonry, demolition, or blasting operations at hard rock quarries where stone is pulverised. None of these operations would take place at silica sand extraction sites in Norfolk. The Areas of Search Policy requires any planning application within an area of search to submit an air quality</p>

Main Issues Raised	NCC Planning Officer response
<p>There has been no seasonal impact assessment made as to how this will affect the thousands of local residents or tourists who visit the area.</p> <p>What are the mitigation measures to deal with any amenity impacts? Such measures must be adequate and imposed before any planning permission is granted.</p>	<p>assessment together with mitigation measures to address any potential impacts. The boundaries of all the areas of search are at least 250 metres from the nearest residential dwellings because this represents the distance at which amenity impacts, such as noise and dust, could be mitigated at source to acceptable levels with the minimum of controls.</p> <p>The Silica Sand Review contains no requirement for a processing plant within any of the Areas of Search. There is an existing processing plant at Leziate.</p> <p>The boundary of AOS A is 250 metres from the nearest sensitive receptors to amenity impacts (including residential dwellings, caravan parks and leisure facilities) because this represents the distance at which amenity impacts, such as noise and dust, could be mitigated to acceptable levels with the minimum of controls. Well-designed mineral extraction proposals which comply with the adopted Minerals and Waste Development Management policies would appropriately mitigate potential impacts to landscape, transport and amenity (such as noise, dust etc.) such that it is considered that no unacceptable adverse impacts would occur regardless of the size of the local population and any seasonal variations in population.</p> <p>Mitigation measures to deal with amenity impacts from silica sand extraction sites were detailed in the Preferred Options Consultation. Mitigation measures can include:</p> <ul style="list-style-type: none"> • Dampening haul routes and stockpiles to reduce dust emissions. • Creation of bunding, limits on operational hours, use of white noise/non-tonal reversing alarms, and noise limits to reduce noise impacts • Routing agreements for HGV movements, junction and/or highway improvements, limits on vehicle movements, sheeting of vehicles to enclose the load, wheel washing, use of off-highway haul routes to reduce impacts from vehicle movements. <p>Mitigation measures would be proposed as part of a planning application and assessed through the determination of a planning application. Where required, planning conditions can be imposed on any permission granted, to ensure that mitigation measures take place and are monitored.</p>

Main Issues Raised	NCC Planning Officer response
<p>A public inquiry must take place locally before any final decision on whether or not to proceed with this proposal is taken.</p>	<p>The examination of a Local Plan by an independent Planning Inspector often includes public hearing sessions. The form of the examination is determined by the Planning Inspector. This is not the same as a public inquiry which is undertaken in the determination of planning applications or planning appeals in certain circumstances.</p>
<p>Dersingham Parish Council objected for the following reasons: Parts of the village fall easily within 250m of the area of search and with the strong prevailing westerly wind dust and debris will blow frequently over the village. This will cause great distress to parishioners and affect their health. Exposure to this type of air pollution can have a long term effect on health and associated in particular with premature mortality due to cardio pulmonary affects. The young and old are more vulnerable to the effects of air pollution.</p> <p>The Pre-Submission document states that access could be achieved on to the A149 by other existing side roads. The village does not have any side roads these are farm tracks and a bridleway. The bridleway is not within the search area. The visibility getting out of these tracks is not good and turning onto a busy road at 60mph and extra busy most of the year due</p>	<p>The boundary of the area of search is 250 metres from the nearest sensitive receptors to amenity impacts (such as residential dwellings, educational facilities, workplaces etc) because this represents the distance at which dust could be mitigated to acceptable levels with the minimum of controls. Therefore no parts of the village are within 250 metres of the AoS. The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include an air quality assessment of the potential for any emissions, including dust, together with suitable mitigation measures to address any potential impacts. The extraction of silica sand does not generate significant quantities of dust. The sand is generally damp on extraction, there are not large quantities of smaller particles within the sand. Silica dust is usually generated from operations which work stone, such as stone masonry, demolition, or blasting operations at hard rock quarries where stone is pulverised. None of these operations would take place at silica sand extraction sites in Norfolk. Silica dust is not harmful as a result of any toxicity in material, but as a result of the size of the particle. The Health and Safety Executive states that <i>“It should also be noted that excessive long term exposures to almost any dust, are likely to lead to respiratory (breathing) problems.”</i> It is considered that the adopted policies within the Minerals and Waste Development Management Policies would mean that appropriate measures would be put in place to ensure any future extraction would not result in any unacceptable adverse impacts, including air quality.</p> <p>The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include a Transport Assessment or Statement which considers the potential for transport impacts and identifies appropriate mitigation measures to address these impacts. A planning application would need to provide sufficient land for acceptable visibility splays and</p>

Main Issues Raised	NCC Planning Officer response
<p>to tourism. The village was denied access from Station Road when the bypass was built as it was deemed too dangerous. The road will soon become an accident blackspot and with every fatality on a Norfolk Road running to around 1 million pounds this is not economically viable. With Sibelco's estimated figure of 200 lorries a day the road will be a standstill and being the main road to Hunstanton traffic is going to start travelling through the village causing the Parishioner's even more harm, and the tourist trade will fade causing another blow to their lives.</p> <p>The nitrogen dioxide and nitric oxides will build up from the slow moving vehicles the air will not be suitable to breathe. Many Parishioners have moved to Norfolk on retirement to get away from this. People will be moving on again if they can and communities will be threatened.</p> <p>AOS A is largely described as an area of agricultural land with small areas of woodland and largely used for agriculture. The area in fact is made up of reed marsh, grassland ditches and drains. It is used primarily for grazing and riding horses.</p> <p>Many Parishioners walk freely and allowing development would take this away. In the BC KL&WN 2015 document from Wild Frontier Ecology. It states that the most significant threat to sites of European importance was considered to be the multi-faceted and complex impacts arising from increased recreation and leisure. People walk their dogs here as the site is within one kilometre from the village. If these dogs cannot be exercised on</p>	<p>potentially also a right turn lane, if it would be required for highway safety.</p> <p>It would be for the case officer, determining any future planning application for silica sand extraction, to consider what level of vehicle movements from the extraction site would be appropriate, based on a Transport Assessment and in consultation with the Highway Authority. However, the Highway Authority considers that an acceptable technical solution could be found in principle.</p> <p>There is an average of just over 15,700 traffic movements each day on the A149 between Knights Hill and Snettisham. Average daily traffic movements along this section of the A149 varies across the year; August records the highest with just over 19,000 average daily traffic movements (a 21% increase on the annualised figure), and the lowest is recorded in January at just over 12,250 traffic movements (a 22% decrease). Many consultation responses included a figure of 400 additional vehicle movements (200 each way). This level of movements would result in a 2.5% increase on the average daily traffic movements, a 2.1% increase in August, and a 3.3% increase in January. This means that any additional traffic movements would be well within normal seasonal fluctuations on this road.</p> <p>An Air Quality Assessment will be required to be submitted with any planning application within an Area of Search in accordance with the Areas of Search Policy, together with suitable mitigation measures to address potential impacts.</p> <p>Whilst some parts of AOS A are used for horses, AOS A is an area of agricultural land with small areas of woodland that is largely used for agriculture. It does include ditches and drains.</p> <p>There are no Public Rights of Way within AOS A. Dersingham BR2a, a bridleway, runs close to the southern boundary, and Snettisham FP35, a footpath, runs approximately 1.3 km west of the western boundary of the AoS. A permissive bridleway exists on the southeastern corner of AOS A close to the A149 and is accessed from BR2a. This is referred to by Natural England as Warren Farm A, and is a circular path of approximately 2.4km. It is not considered that</p>

Main Issues Raised	NCC Planning Officer response
<p>this site this will force Parishioners to Dersingham Bog and possibly Roydon Common. These areas are already under maximum pressure with the current number of visitors.</p> <p>Within the report there is no mention of wildlife on AOS _A. Currently there are Water Voles, Marsh Harriers, Reed Buntings, Curlew, Yellowhammers, Skylarks and Barn Owls.</p> <p>The effects on Dersingham are potentially very negative on the amenity and the biodiversity, the historic environment and landscape.</p> <p>The distance from the processing plant at Leziate, compared to the other areas of search.</p> <p>The risk of flooding should be taken into account.</p> <p>The need for more lorries to carry the wet sand</p>	<p>this would either prejudice the potential for extraction on parts of AOS A, or that users would be subject to unacceptable adverse impacts given normal planning controls. The permissive bridleway was designated in 2010 and permission ends on 31 January 2020.</p> <p>There is no intention within the Silica Sand Review for extraction to take place on the whole 328 hectares of AOS A, and it is not considered that extraction within a smaller area of land within AOS A (of around 20 hectares) would lead to dog walkers needing to travel further afield.</p> <p>Noted. If a planning application is made for silica sand extraction within AOS A, a Biodiversity Survey and Report would need to be submitted. Any planning application would be determined in accordance with Policy CS14 and Policy DM1 of the adopted Minerals and Waste Core Strategy which cover Environmental Protection and Nature Conservation. The Areas of Search policy also requires a planning application for silica sand extraction within an area of search to include a protected species assessment and if protected species are found on the proposed extraction site then the appropriate mitigation will be required.</p> <p>Based on the information in the Area of Search assessments, it is considered that the adopted Minerals and Waste Core Strategy and Development Management policies, together with the Areas of Search Policy would be appropriate for addressing the issues raised.</p> <p>AOS A is slightly further from the processing plant at Leziate than the other areas of search.</p> <p>A Flood Risk Sequential Test has been carried out as part of the Silica Sand Review. Silica sand extraction is considered, in the national Planning Practice Guidance, to be a 'water compatible' land use which is suitable in all flood zones. If a planning application is made for silica sand extraction within the area of search a site specific flood risk assessment (FRA) would need to be submitted. The FRA would need to demonstrate that extraction of minerals in this location would not increase flood risk elsewhere. The potential also exists on restoration for any former workings to be used as temporary floodwater storage areas, diverting excess water away from more vulnerable forms of development.</p> <p>The sand is likely to be extracted damp. The</p>

Main Issues Raised	NCC Planning Officer response
<p>or a method of drying on site with the potential of creating more dust.</p> <p>This proposal would have a detrimental effect on the village of Dersingham, the Parishioner's health, their leisure time, their surrounding ecology, their economy and their general way of life.</p>	<p>sand would not be dried on site. The number of vehicle movements is not known at this stage.</p> <p>Based on the information in the Area of Search assessments, it is considered that the adopted Minerals and Waste Core Strategy and Development Management policies, together with the Areas of Search Policy would be appropriate for addressing the issues raised.</p>
<p>Ingoldisthorpe Parish Council objected for the following reasons: Health impacts from dust due to the proximity of the village to the AoS. Concerns of a constant layer of dust on residents houses, cars and windows.</p> <p>Impact on The Wash SSSI, SPA and SAC. Impact on Dersingham Bog SSSI and SAC. Unknown impact on migratory birds and their flight paths.</p> <p>Increased traffic congestion in and around the Dersingham roundabout and increased traffic fumes. Effect of increased traffic on access to the hospital.</p>	<p>The extraction of silica sand does not generate significant quantities of dust. The sand is generally damp on extraction, there are not large quantities of smaller particles within the sand. Silica dust is usually generated from operations which work stone, such as stone masonry, demolition, or blasting operations at hard rock quarries where stone is pulverised. None of these operations would take place at silica sand extraction sites in Norfolk. The Areas of Search Policy requires any planning application within an area of search to submit an air quality assessment together with mitigation measures to address any potential impacts. The boundaries of all the areas of search are at least 250 metres from the nearest residential dwellings because this represents the distance at which amenity impacts, such as noise and dust, could be mitigated at source to acceptable levels with the minimum of controls.</p> <p>The potential for impacts on The Wash and Dersingham Bog have been assessed through the Habitats Regulations Assessment (HRA). AOS A is outside the hydrogeological catchment for Dersingham Bog and therefore no likely significant effects are expected. The Habitats Regulations Assessment considered the potential for likely significant effects on the designated bird species of The Wash Ramsar and SPA, due to disturbance and potential loss of functional habitats. The conclusion is that there would be no adverse effects on the integrity of The Wash SPA and Ramsar site from a silica sand extraction site located within AOS A and Natural England agrees with this conclusion.</p> <p>The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include a Transport Assessment or Statement which considers the potential for transport impacts and identifies appropriate mitigation measures to address these impacts. There is an average of just over 15,700 traffic</p>

Main Issues Raised	NCC Planning Officer response
<p>Pollution of the River Ingol if there is a flood.</p> <p>Concern for the permanent Scout Camp on the beach, loss of business for local caravan sites and the impact on recreation and well-being of local people who walk in the area.</p>	<p>movements each day on the A149 between Knights Hill and Snettisham. Average daily traffic movements along this section of the A149 varies across the year; August records the highest with just over 19,000 average daily traffic movements (a 21% increase on the annualised figure), and the lowest is recorded in January at just over 12,250 traffic movements (a 22% decrease). It would be for the case officer, determining any future planning application for silica sand extraction, to consider what level of vehicle movements from the extraction site would be appropriate, based on a Transport Assessment and in consultation with the Highway Authority. However, the Highway Authority considers that an acceptable technical solution could be found in principle. Many consultation responses included a figure of 400 additional vehicle movements (200 each way). This level of movements would result in a 2.5% increase on the average daily traffic movements, a 2.1% increase in August, and a 3.3% increase in January. This means that any additional traffic movements would be well within normal seasonal fluctuations on this road. An Air Quality Assessment will be required to be submitted with any planning application within an Area of Search in accordance with the Areas of Search Policy, together with suitable mitigation measures to address potential impacts.</p> <p>The Areas of Search Policy requires planning applications within area of search to assess potential impacts under the Water Framework Directive and mitigation measures if required. Silica sand is an inert material. Planning conditions are routinely used to require the containment of containers/tanks used for the storage of oil etc which are needed for plant and equipment to prevent pollution.</p> <p>The north-western boundary of AOS A is 380 metres from the Scout campsite on Beach Road. The boundary hedges and other existing development limit views of the AoS. The boundary of AOS A is at least 250 metres from the boundary of the closest caravan site. Well-designed mineral extraction proposals which comply with the adopted Minerals and Waste Core Strategy and Development Management policies would appropriately mitigate potential impacts to landscape and amenity (such as noise and air quality) such that it is considered that no unacceptable adverse impacts would occur that would be likely to compromise the attractiveness</p>

Main Issues Raised	NCC Planning Officer response
	<p>of the area for tourism. Positive restoration benefits for tourism may occur in the medium-long term, as has happened at other former mineral workings in Norfolk, such as Pensthorpe Natural Park. RSPB Snettisham is an area of previous mineral workings, the water bodies covering an area of approximately 27 hectares, these provide positive ecological and tourism benefits.</p>
<p>Sedgeford Parish Council objected for the following reasons: It will have a detrimental effect on the villages along the A149 and add lorry movements onto what is already a very busy road, particularly in the summer season with tourists and in the winter with agricultural movement of crops. Any further junction onto the road can only cause increased interruptions to the traffic flow on the only open stretch of highway between King's Lynn and Hunstanton and the coast beyond. The increase in housing in the villages and Hunstanton will add pressure on this road which would add to the delays.</p> <p>Any industrial site on this scale is going to lead to dust and noise. With the prevailing winds blowing predominately from west to east this will go back over the villages around. The designated area is an exposed windy site, often demonstrated when the wind blows the soil from the fields in dry periods.</p>	<p>The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include a Transport Assessment or Statement which considers the potential for transport impacts and identifies appropriate mitigation measures to address these impacts. There is an average of just over 15,700 traffic movements each day on the A149 between Knights Hill and Snettisham. Average daily traffic movements along this section of the A149 varies across the year; August records the highest with just over 19,000 average daily traffic movements (a 21% increase on the annualised figure), and the lowest is recorded in January at just over 12,250 traffic movements (a 22% decrease). It would be for the case officer, determining any future planning application for silica sand extraction, to consider what level of vehicle movements from the extraction site would be appropriate, based on a Transport Assessment and in consultation with the Highway Authority. The decision would also take into account junction and highway improvements proposed by the applicant. However, the Highway Authority considers that an acceptable technical solution could be found in principle. Many consultation responses included a figure of 400 additional vehicle movements (200 each way). This level of movements would result in a 2.5% increase on the average daily traffic movements, a 2.1% increase in August, and a 3.3% increase in January. This means that any additional traffic movements would be well within normal seasonal fluctuations on this road.</p> <p>The extraction of silica sand does not generate significant quantities of dust. The sand is generally damp on extraction, there are not large quantities of smaller particles within the sand, and indeed small particles within the resource would reduce its suitability as glass sand. Silica dust is usually generated from operations which work stone, such as stone masonry, demolition, or blasting operations at hard rock quarries where stone is pulverised. None of these operations</p>

Main Issues Raised	NCC Planning Officer response
<p>The site is also in the flood risk/sea defence zone.</p> <p>The proposed extraction works could have a detrimental effect on local wildlife, flora and fauna. The site contains areas of SSSIs and designated countryside areas including the Dersingham Bog and the Snettisham RSPB reserve. Large flocks of birds are seen circling in the sky over this area and any disturbance to these would be of great concern.</p> <p>The area of countryside is unique in its nature and makeup and everything possible should be</p>	<p>would take place at silica sand extraction sites in Norfolk. The Areas of Search Policy requires any planning application within an area of search to submit an air quality assessment together with mitigation measures to address any potential impacts. The boundaries of all the areas of search are at least 250 metres from the nearest residential dwellings because this represents the distance at which amenity impacts, such as noise and dust, could be mitigated at source to acceptable levels with the minimum of controls.</p> <p>A Flood Risk Sequential Test has been carried out as part of the Silica Sand Review. Silica sand extraction is considered, in the national Planning Practice Guidance, to be a 'water compatible' land use which is suitable in all flood zones. If a planning application is made for silica sand extraction within the area of search a site specific flood risk assessment (FRA) would need to be submitted. The FRA would need to demonstrate that extraction of minerals in this location would not increase flood risk elsewhere. The potential also exists on restoration for any former workings to be used as temporary floodwater storage areas, diverting excess water away from more vulnerable forms of development.</p> <p>If a planning application is made for silica sand extraction within AOS A, a Biodiversity Survey and Report would need to be submitted. The Areas of Search policy also requires a planning application for silica sand extraction within an area of search to include a protected species assessment and if protected species are found on the proposed extraction site then the appropriate mitigation will be required. AOS A is outside the hydrological catchment for Dersingham Bog. A Habitats Regulations Assessment (HRA) has been carried out which concluded that there would be no likely significant effects on Dersingham Bog. Natural England agrees with this conclusion. The HRA considered the potential for likely significant effects on the designated bird species of The Wash Ramsar and SPA, due to disturbance and potential loss of functional habitats. The conclusion is that there would be no adverse effects on the integrity of The Wash SPA and Ramsar site from a silica sand extraction site located within AOS A and Natural England agrees with this conclusion.</p> <p>Well-designed mineral extraction proposals which comply with the adopted Minerals and Waste</p>

Main Issues Raised	NCC Planning Officer response
<p>done to protect it. The effects on tourism could be great if people are put off coming to our beautiful location. This then has the knock on effect on local businesses that rely on that trade to survive and also employ local people.</p>	<p>Core Strategy and Development Management policies would appropriately mitigate potential impacts to landscape and amenity (such as noise and air quality) such that it is considered that no unacceptable adverse impacts would occur that would be likely to compromise the attractiveness of the area for tourism. Positive restoration benefits for tourism may occur in the medium-long term, as has happened at other former mineral workings in Norfolk, such as Pensthorpe Natural Park. RSPB Snettisham is an area of previous mineral workings, the water bodies covering an area of approximately 27 hectares, these provide positive ecological and tourism benefits.</p>
<p>Three types of standard letters were received from local residents. The standard letters contained objections to AOS A for the following reasons: Increase in traffic volumes on the A149 which is an extremely busy and at times dangerous road and is often gridlocked from the Hardwick roundabout to Hunstanton during the holiday season. Traffic will increase due to proposed housing developments at King's Lynn, Hunstanton and Heacham. When the A149 bypass was built, access to the road from Station Road, Dersingham was blocked due to Highways concerns. However, the proposed access road will be very close, and HGVs leaving the site will have to cross the line of traffic to head to Leziate.</p>	<p>The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include a Transport Assessment or Statement which considers the potential for transport impacts and identifies appropriate mitigation measures to address these impacts. A planning application would need to provide sufficient land for acceptable visibility splays and potentially also a right turn lane, if it would be required for highway safety. There is an average of just over 15,700 traffic movements each day on the A149 between Knights Hill and Snettisham. Average daily traffic movements along this section of the A149 varies across the year; August records the highest with just over 19,000 average daily traffic movements (a 21% increase on the annualised figure), and the lowest is recorded in January at just over 12,250 daily traffic movements (a 22% decrease). It would be for the case officer, determining any future planning application for silica sand extraction, to consider what level of vehicle movements from the extraction site would be appropriate, based on a Transport Assessment and in consultation with the Highway Authority. The decision would also take into account junction and highway improvements proposed by the applicant. However, the Highway Authority considers that an acceptable technical solution could be found in principle. Many consultation responses included a figure of 400 additional vehicle movements (200 each way). This level of movements would result in a 2.5% increase on the average daily traffic movements, a 2.1% increase in August, and a 3.3% increase in January. This means that any additional traffic movements would be well within normal seasonal fluctuations on this road.</p>

Main Issues Raised	NCC Planning Officer response
<p>The populations of Ingoldisthorpe, Dersingham and Snettisham with heart and breathing conditions will have their symptoms exacerbated by the dust carried on the prevailing winds which go east to west off the Wash. The area of search is an exposed windy position.</p> <p>The AoS is in the flood risk/sea defence zone.</p> <p>The extraction would have a detrimental effect on the local flora, fauna and wildlife. There are several SSSIs and designated countryside areas (Dersingham Bog and RSPB Snettisham reserve) in close proximity to the AoS. Many migrating birds flock to the area.</p>	<p>The extraction of silica sand does not generate significant quantities of dust. The sand is generally damp on extraction, there are not large quantities of smaller particles within the sand. Silica dust is usually generated from operations which work stone, such as stone masonry, demolition, or blasting operations at hard rock quarries where stone is pulverised. None of these operations would take place at silica sand extraction sites in Norfolk. The Areas of Search Policy requires any planning application within an area of search to submit an air quality assessment together with mitigation measures to address any potential impacts. The boundaries of all the areas of search are at least 250 metres from the nearest residential dwellings because this represents the distance at which amenity impacts, such as noise and dust, could be mitigated at source to acceptable levels with the minimum of controls.</p> <p>A Flood Risk Sequential Test has been carried out as part of the Silica Sand Review. Silica sand extraction is considered, in the national Planning Practice Guidance, to be a 'water compatible' land use which is suitable in all flood zones. If a planning application is made for silica sand extraction within the area of search a site specific flood risk assessment (FRA) would need to be submitted. The FRA would need to demonstrate that extraction of minerals in this location would not increase flood risk elsewhere. The potential also exists on restoration for any former workings to be used as temporary floodwater storage areas, diverting excess water away from more vulnerable forms of development.</p> <p>If a planning application is made for silica sand extraction within AOS A, a Biodiversity Survey and Report would need to be submitted. The Areas of Search policy also requires a planning application for silica sand extraction within an area of search to include a protected species assessment and if protected species are found on the proposed extraction site then the appropriate mitigation will be required. AOS A is outside the hydrological catchment for Dersingham Bog. A Habitats Regulations Assessment (HRA) has been carried out which concluded that there would be no likely significant effects on Dersingham Bog. Natural England agrees with this conclusion. The HRA considered the potential for likely significant effects on the</p>

Main Issues Raised	NCC Planning Officer response
<p>Local people have enjoyed access to the area for centuries and many walk to the coast to enjoy the views and see the wild animals, birds and plants that inhabit the area.</p> <p>The area relies heavily upon tourism for its economy. Many businesses would be adversely affected if visitors are put off coming to the area due to traffic concerns or the industrialisation of our beautiful countryside.</p>	<p>designated bird species of The Wash Ramsar and SPA, due to disturbance and potential loss of functional habitats. The conclusion is that there would be no adverse effects on the integrity of The Wash SPA and Ramsar site from a silica sand extraction site located within AOS A and Natural England agrees with this conclusion.</p> <p>There are no Public Rights of Way within AoS A. Dersingham BR2a, a bridleway, runs close to the southern boundary, and Snettisham FP35, a footpath, runs approximately 1.3 km west of the western boundary of the AoS. A permissive bridleway exists on the south-eastern corner of AOS A close to the A149 and is accessed from BR2a. This is referred to by Natural England as Warren Farm A, and is a circular path of approximately 2.4km. It is not considered that this would either prejudice the potential for extraction on parts of AOS A, or that users would be subject to unacceptable adverse impacts given normal planning controls. The permissive bridleway was designated in 2010 and permission ends on the 31 January 2020.</p> <p>Well-designed mineral extraction proposals which comply with the adopted Minerals and Waste Core Strategy and Development Management policies would appropriately mitigate potential impacts to landscape and amenity (such as noise and air quality) such that it is considered that no unacceptable adverse impacts would occur that would be likely to compromise the attractiveness of the area for tourism. Positive restoration benefits for tourism may occur in the medium-long term, as has happened at other former mineral workings in Norfolk, such as Pensthorpe Natural Park. RSPB Snettisham is an area of previous mineral workings, the water bodies covering an area of approximately 27 hectares, these provide positive ecological and tourism benefits. Views of AOS A from Snettisham Beach, and RSPB Snettisham are long distance views, which as a result of the existing wooded areas to the west of the AoS and the low levels of viewpoints, even from the flood defence bank, would be both limited and capable of additional screening without this being intrusive in its own right.</p>
<p>A petition was received which objected to AOS A for the following reasons:</p> <ul style="list-style-type: none"> * Potential damage to wildlife & environment * Impact on highways and road safety * Damage to businesses, tourism & home owners 	<p>If a planning application is made for silica sand extraction within AOS A, a Biodiversity Survey and Report would need to be submitted. The Areas of Search policy also requires a planning application to include a protected species assessment and if protected species are found on</p>

Main Issues Raised	NCC Planning Officer response
<ul style="list-style-type: none"> * Potential health risk eg from wind dispersal * Impact on local population in surrounding villages * Inefficiency and cost <p>This is a major tourist area which attracts thousands of visitors all year round. It is surrounded by areas of particular importance including SSI sites, AONB sites and areas of archaeological importance, as well as being an area within the region's flood/sea defence risk zone."</p>	<p>the proposed extraction site then the appropriate mitigation will be required.</p> <p>The Highway Authority considers that mineral extraction within AOS A would be suitable subject to junction mitigation and highway network improvements. The Areas of Search Policy requires a planning application to include a Transport Assessment or Statement which considers the potential for transport impacts and identifies appropriate mitigation measures to address these impacts.</p> <p>The extraction of silica sand does not generate significant quantities of dust. The sand is generally damp on extraction, there are not large quantities of smaller particles within the sand. Silica dust is usually generated from operations which work stone, such as stone masonry, demolition, or blasting operations at hard rock quarries where stone is pulverised. None of these operations would take place at silica sand extraction sites in Norfolk. The Areas of Search Policy requires any planning application to include an air quality assessment together with mitigation measures to address any potential impacts. The boundaries of all the areas of search are at least 250 metres from the nearest residential dwellings because this represents the distance at which amenity impacts, such as noise and dust, could be mitigated at source to acceptable levels with the minimum of controls.</p> <p>The Wash SSSI, Norfolk Coast AONB, archaeology and flood risk have been taken into account in the assessment of the area of search. The Areas of Search policy contains requirements to assess these planning constraints and propose mitigation measures if required. A Flood Risk Sequential Test has been carried out as part of the Silica Sand Review. Silica sand extraction is considered, in the national Planning Practice Guidance, to be a 'water compatible' land use which is suitable in all flood zones. If a planning application is made for silica sand extraction within the area of search a site specific flood risk assessment (FRA) would need to be submitted. The FRA would need to demonstrate that extraction of minerals in this location would not increase flood risk elsewhere.</p>
<p>In addition to the issues raised by the Parish Councils and within the standard letters, local residents also raised the following issues:</p>	
<p>Objections because of the loss of agricultural land to silica sand extraction</p>	<p>There is no grade 1 or grade 2 agricultural land within any of the areas of search. The land within AOS A is Grade 3 agricultural land. Grade 3 agricultural land has not been excluded from the</p>

Main Issues Raised	NCC Planning Officer response
	<p>areas of search because only subgrade 3a is classified as BMV agricultural land. The subgrades of 3a and 3b are not mapped and therefore it is not possible to differentiate between them when defining areas of search. If a planning application was submitted on a smaller parcel of land within the area of search this would need to be supported by an agricultural land assessment in accordance with the adopted development management policy. This would assess the potential loss compared with the benefits of extraction and ecology/biodiversity on restoration.</p>
<p>Concerns that silica dust will cause Silicosis in the local population</p>	<p>The extraction of silica sand does not generate significant quantities of dust. The sand is generally damp on extraction, there are not large quantities of smaller particles within the sand, and indeed small particles within the resource would reduce its suitability as glass sand. Silica dust is usually generated from operations which work stone, such as stone masonry, demolition, or blasting operations at hard rock quarries where stone is pulverised, or which use silica flour, such as the ceramics industry. None of these operations would take place at silica sand extraction sites in Norfolk. The Health and Safety Executive have stated that <i>“Silicosis is a disease that has only been seen in workers from industries where there is a significant exposure to silica dust, such as in quarries, foundries, the potteries etc.”</i></p> <p>There have been a number of silica sand extraction sites in Norfolk and nationally which have operated closer to residential areas than the 250 metres used to define the boundaries of areas of search in the Silica Sand Review. These sites have operated for a number of years and the Health and Safety Executive have stated <i>“No cases of silicosis have been documented among members of the general public in Great Britain, indicating that environmental exposures to silica dust are not sufficiently high to cause this occupational disease.”</i></p>
<p>Concerns that silica sand is carcinogenic</p>	<p>Silica sand is not a toxic material, it is inert. Silica sand is used in a number of ways due to its inert nature, for example as a water filtration material by the water industry for public drinking water supplies, in horticulture, and as play sand. Silica dust is not harmful as a result of any toxicity in material, but as a result of the size of the particle. The Health and Safety Executive states that <i>“It should also be noted that excessive long term exposures to almost any dust, are likely to lead to respiratory (breathing) problems.”</i> It is</p>

Main Issues Raised	NCC Planning Officer response
	<p>considered that the adopted Minerals and Waste Core Strategy and Development Management Policies, along with the Areas of Search Policy would mean that appropriate measures would be put in place to ensure any future extraction would not result in any unacceptable adverse impacts on air quality. The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include an air quality assessment of the potential for any emissions, including dust, together with suitable mitigation measures to address any potential impacts.</p> <p>Excessive long term workplace exposure to silica dust has been highlighted as a potential cancer risk for workers, however this has not been highlighted as a risk to the general public, and no cases of silicosis, which is an occupational disease, have been recorded within the UK general public. The HSE has stated that “...<i>there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis</i>”.</p>
<p>Concerns that the silica sand extracted could be used in fracking</p>	<p>The purpose of the Silica Sand Review is not to provide sand for use in fracking. Silica sand is used in many ways, however silica sand varies significantly in grain shape, size and the proportion of other minerals found within it. This means that silica sand suitable for one use may be unsuitable for others. This is the case for the silica sand resource included in the Silica Sand Review. The silica sand in the Leziate Beds is potentially suitable for glass making dependent on detailed borehole information at a site level, but is unsuitable for use as a ‘frac sand’ because of its grain shape.</p>
<p>Concerns that a silica sand extraction site would have a negative effect on house prices and land prices</p>	<p>Property prices are not a material consideration in the planning system, as development value was nationalised by the 1947 Planning Act.</p>
<p>The Lidl Heacham planning application was refused to avoid disruption from additional traffic on A149, so why would additional lorry movements due to a silica sand extraction site be acceptable?</p>	<p>In relation to the planning application for a Lidl store at Heacham (15/02004/FM); the Highway Authority concluded that an acceptable technical solution was available for the highway access arrangements for this application. The application provided sufficient land to be able to accommodate a right turn lane unlike other minor roads in the vicinity where right turns were prohibited. The Highway Authority did not object to the application. However, the Planning Committee refused the application, in June 2016,</p>

Main Issues Raised	NCC Planning Officer response
	<p>contrary to the Borough Council's planning officer recommendation. One of the reasons for refusal put forward by the Planning Committee was highway safety and the efficient operation of the highway network, despite the Highway Authority having concluded that planning application included the best highway solution for the site. At the time of writing it is not known whether an appeal against refusal will be lodged.</p>
<p>The Ridgeons planning application at Snettisham was refused due to the number of lorries that would be turning onto the A149, so why would it be acceptable for a silica sand extraction site to have lorries turning onto the A149?</p>	<p>This application (04/02044/F) was for the construction of a Ridgeons builders' merchants on land adjacent to Beach Road, Snettisham in 2004. It was refused by the Borough Council, and the appeal was dismissed in 2004. The Borough Council's reasons for refusal and the Planning Inspectorate's reasons for dismissing the appeal were not on the grounds of any impact on the highway from the proposed development. The proposed warehouse would have been 7.5m in height to the ridge, with open pallet racking to 6m within the site. The Inspector noted that the site was in open countryside, and that it was not either an agricultural, forestry or mineral operation which would require such a location. The Inspector examined the potential for the warehouse to be located on other employment land allocated within the Local Plan.</p> <p>Mineral extraction can only take place in locations where a mineral resource exists, and the purpose of the Silica Sand Review is to allocate land within which a smaller extraction area could potentially come forward. As a builders' merchant this application was for permanent development. As the Silica Sand Review relates only to mineral extraction and does not include any permanent development (such as a processing plant) the decision on this application is not relevant. It is also likely that any bunding or screen planting necessary as part of any future extraction site on part of the AoS would be less than the height of the proposed warehouse or racking; screening heights of around 3.5 metres are more usual on extraction sites in Norfolk with reduced potential for impacts and would be temporary.</p>
<p>Concerns that AOS A would include a processing plant or 'refinery' for silica sand</p>	<p>The Silica Sand Review contains no requirement for a processing plant within any of the Areas of Search. The Areas of Search are only for the potential location of a smaller extraction site, if information from future boreholes proved that there was a viable mineral resource. Norfolk has a statutory duty to plan for silica sand extraction because there is an existing processing plant at Leziate. Processing plants are fixed as a result of</p>

Main Issues Raised	NCC Planning Officer response
	the significant infrastructure within them.
Concerns that silica sand is toxic	Silica sand is not a toxic material, it is inert. Silica sand is used in a number of applications due to its inert nature, for example as a water filtration material for public drinking water supplies, in horticulture, and as play sand.
Objections on the grounds of impacts on hydrology and the water table from silica sand extraction, including potential impacts to the Snettisham RSPB reserve lakes, Shepherds Port fishing lakes sailing lakes, and the River Ingol as chalk bed stream.	The potential for impacts on hydrogeology (watertable) are considered for all potential mineral extraction sites and appropriate mitigation measures put in place when necessary. The methodology for defining the Areas of Search excluded all land within the hydrological catchment zone of Dersingham Bog and Roydon Common which would significantly reduce the potential for impacts on these sites from any dewatering. Natural England and the Environment Agency have agreed that this is appropriate. The adopted Development Management Policy DM3 requires a Hydrogeological Risk Assessment for all applications where the potential for impacts exists, which would propose mitigation measures. It is considered that silica sand extraction could take place without unacceptable adverse impacts occurring to water sensitive features in locations within and close to the Areas of Search. Measures to mitigate impacts could include wet working, or by the use of artificial recharge techniques to protect water-sensitive features from the effects of any dewatering. Chapter 8 of the Preferred Options Consultation (October 2015) contains further information. It should be noted that the River Ingol is not a chalk bed stream at the point it flows into AOS A. The Norfolk Rivers Trust states that: <i>“Below Snettisham, intensive arable agriculture borders the stream and the Ingol has been modified to such an extent that it has almost no ecological value.”</i>
Questions about who owns the land within AOS A, why some landowners within AOS A were not aware of the Silica Sand Review and concerns that the land would be compulsory purchased for silica sand extraction.	Norfolk County Council does not own land within AOS A. There is no requirement for landowners to be contacted when Areas of Search are defined. Indeed, part of the reasoning behind areas of search is that they are larger areas than would be required for extraction, to take into account the potential that not all landowners within the area would be willing for mineral extraction to take place on their land. The Silica Sand Review does not suggest any change to landownership. Whether a particular parcel of land within an Area of Search would come forward as a potential planning application for an extraction site would be a commercial

Main Issues Raised	NCC Planning Officer response
	<p>decision between the landowner and a mineral operator. The County Council has not used its compulsory purchase powers previously in relation to silica sand sites and the Silica Sand Review does not propose to change this.</p>
<p>Objections questioning the need for silica sand extraction in Norfolk</p>	<p>Silica sand for glass making is a nationally important, scarce, resource; occurring in only two counties in England. England is largely self-sufficient in glass manufacture. Norfolk supplies around half the material required for window glass manufacture in England. High quality window glass is a vital resource for the construction industry, and the potential exists that a shortfall in material could adversely affect the construction of new homes and businesses, and costs, at a national scale. Modern high quality window glass offers significant efficiency and sustainability advantages for energy consumption. The use of recycled glass in the manufacture of container glass requires a certain proportion of high quality silica sand to produce acceptable products, a shortfall in suitable silica sand for glass making could impact on the ability to use high proportions of recycled glass and adversely affect the sustainability of such products. Silica sand from Norfolk supplies a number of glassworks in England, providing many jobs both directly and indirectly through downstream jobs such as manufacturing, haulage and the construction sector.</p>
<p>Concerns about how a silica sand extraction site will be restored</p>	<p>The restoration of mineral extraction sites is a key component of modern planning applications and a restoration plan would need to be agreed as part of such an application and would form part of the planning conditions of any subsequent permission to ensure compliance. There are a number of historic extraction sites in Norfolk which were granted permission before such conditions formed part of the planning system (prior to the 1980s). It is important therefore to compare potential restoration with previously worked sites which have benefited from a restoration plan. Restoration plans for mineral workings can provide positive enhancement to the environment and tourism, such as at Pensthorpe Natural Park and Whittingham Country Park. Mineral extraction is a temporary operation, and from experience at other sites in Norfolk it would be expected that silica sand extraction operations on a 20 hectare site would take approximately two years to complete, with restoration measures and aftercare taking place after this. Restoration on previous silica sand extraction sites in Norfolk</p>

Main Issues Raised	NCC Planning Officer response
	<p>have been designated as County Wildlife Sites. Due to the depth of silica sand and the height of the water table in existing silica sand workings, it is likely that silica sand extraction sites would largely be restored to water.</p>
<p>Objections on the grounds that tourists visit the area for wildlife, bird watching and the countryside</p>	<p>Well-designed mineral extraction proposals which comply with the adopted Minerals and Waste Development Management policies would appropriately mitigate potential impacts to landscape and amenity (such as noise, air quality and light pollution) such that it is considered that no unacceptable adverse impacts would occur that would be likely to compromise the attractiveness of the area for tourism. Positive restoration benefits for tourism may occur in the medium-long term, as has happened at other former mineral workings in Norfolk, such as Pensthorpe Natural Park. RSPB Snettisham is an area of previous mineral workings, the water bodies covering an area of approximately 27 hectares which provide positive ecological and tourism benefits. Views of AOS A from Snettisham Beach and RSPB Snettisham reserve are long distance views, which as a result of the existing wooded areas to the west of the AoS and the low levels of viewpoints, even from the flood defence bank, would be both limited and capable of additional screening without this being intrusive in its own right. (see also detailed responses to other related issues such as effects on the water table, AONB, wildlife, ecology and landscape).</p>
<p>Objections on the grounds that 250 metres is too near for silica sand extraction to take place to people's homes</p>	<p>The boundary of AOS A is 250 metres from the nearest sensitive receptors to amenity impacts (residential dwellings, educational facilities, workplaces, healthcare and leisure facilities) because this represents the distance at which amenity impacts, such as noise and dust, could be mitigated to acceptable levels with the minimum of controls. The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include an air quality assessment of the potential for any emissions, including dust, together with suitable mitigation measures to address any potential impacts on humans, flora and fauna. Previous mineral extraction planning applications have provided assessments and mitigation measures so that extraction has been able to take place at less than this distance without unacceptable adverse impacts.</p>
<p>Objection on the grounds that the Habitats Regulations Assessment (HRA) does not provide evidence as to why the quantity of land</p>	<p>In relation to the Habitats Regulations Assessment (Task 2) for AOS A Natural England stated they "concur with the assessment</p>

Main Issues Raised	NCC Planning Officer response
<p>surrounding the proposed AOS A will be sufficient to avoid a likely significant effect on the Wash SPA due to loss of high tide roosting sites and foraging habitat. Silica sand extraction would also cause a disturbance to the rest of the foraging land.</p> <p>Photographs provided that AOS A is home to breeding populations of several at-risk species, including: water vole, marsh harriers, skylark, reed bunting, sedge warbler, barn owl and stonechat.</p> <p>Whilst the impact on wildlife from one extraction site could be argued to be minimal, over time a number of planning applications for silica sand extraction could lead to a piecemeal approach where site after site gains approval, albeit with restrictions and mitigation clauses, until gradually the whole AOS becomes degraded for its wildlife value.</p>	<p>conclusions, subject to the mitigation measures (as outlined under 3.4 under page 2-13 of the report) being secured in any subsequent permissions given for the extraction of silica sand within AOS A... Any future planning applications would need to be accompanied by a project level HRA.”</p> <p>Noted. If a planning application is made for silica sand extraction within AOS A, a Biodiversity Survey and Report would need to be submitted. This would not be limited to the boundary of the site. The Areas of Search policy also requires a planning application for silica sand extraction within an area of search to include a protected species assessment and if protected species are found on the proposed extraction site then the appropriate mitigation will be required. Mineral extraction is a temporary operation, and from experience at other sites in Norfolk, it would be expected that silica sand extraction operations on a 20 hectare site would take approximately two years to complete, with restoration measures and aftercare taking place after this. Restoration can provide positive enhancement to the environment. Restoration on previous silica sand extraction sites have been designated as County Wildlife Sites.</p>
<p>Objections on the grounds that it could be cheaper to import silica sand from abroad than extract it in Norfolk.</p>	<p>Sibelco UK Ltd is part of a multi-national company with global mining operations. As Sibelco UK has active UK mineral extraction operations for silica sand it is considered that the importation of silica sand from the company’s overseas extraction sites would not be cost-effective, for example Sibelco has significant silica sand extraction sites in Belgium.</p>
<p>Objections on the grounds that the whole area of search will be extracted for silica sand.</p>	<p>The purpose of the Silica Sand Review is to address the predicted shortfall in the quantity of silica sand extraction sites allocated in the Minerals Site Specific Allocations DPD, compared to the forecast need in Policy CS1 of the adopted Core Strategy, taking into account the most recent permitted reserve figure. This shortfall is equivalent to approximately 40 hectares of extraction which could come forward as a planning application for a smaller parcel of land within any of the Areas of Search and/or the specific site allocation. There is no intention within the review for extraction to take place on the whole of any of the areas of search.</p>
<p>Concerns that people living near another silica sand site in Norfolk are being paid by the mineral operator to have their cars and windows cleaned every week due to dust.</p>	<p>The Mineral Planning Authority monitors all mineral extraction sites in Norfolk, including responding to complaints regarding amenity impacts (noise, dust, light pollution). There is no</p>

Main Issues Raised	NCC Planning Officer response
	<p>record of a mineral operator having to put in place a measure for the cleaning of cars or windows. Planning conditions issued as part of a minerals planning permission require the mitigation of amenity impacts at source (i.e. at the extraction site), so that they do not affect sensitive receptors, such as nearby residential dwellings.</p>
<p>Objections on the grounds of impacts on Snettisham Beach, Snettisham Beach Sailing Club and the Snettisham Scout camp on Beach Road, from silica sand extraction within AOS A.</p>	<p>The western boundary of AOS A is 1.3km from the Snettisham beach and the sailing club on Snettisham beach and any long distance views of AOS A are largely screened by the wooded areas to the west of the AOS and the caravan park. The north-western boundary of AOS A is 380 metres from the Scout campsite on Beach Road. The boundary hedges and other existing development limit views of the AoS. For all these areas, it is considered that, in principle, silica sand extraction could take place on a smaller parcel of land within the area of search without unacceptable adverse impacts. Based on the information in the Area of Search assessments, it is considered that the adopted Minerals and Waste Core Strategy and Development Management Policies, together with the Areas of Search Policy would be appropriate for addressing the issues raised in this representation. Restoration of mineral workings can provide positive enhancement to the environment and tourism, such as at Pensthorpe Natural Park and Whitlingham Country Park.</p>
<p>Objections on the grounds of impacts on the views of AOS A from the coastal footpath and Chalk Pit Road</p>	<p>Views of AOS A from the coastal footpath are long distance views. As a result of the existing wooded areas to the west of the AoS and the low levels of viewpoints, even from the flood defence bank, views would be both limited and capable of additional screening without this being intrusive in its own right. Due to the shape of the chalk slope, views from Chalk Pit Road are only of the western boundary of AOS A. It is considered that these very limited views could be suitably mitigated in any future planning application.</p>
<p>Objections due to the location of the AOS A in relation to the Norfolk Coast AONB. A representation noted that the AONB Management Plan Strategy 2014-19 contains a vision for the AONB in 2034 which includes the following: <i>“Necessary development, including outside the area and in the marine environment, will have been managed so that the area will still be essentially unspoilt with a strong feeling of remoteness, peace and tranquillity...”</i></p>	<p>AOS A is not within the Norfolk Coast Area of Outstanding Natural Beauty (AONB). The AONB is to the north of Beach Road (along the old railway line) and also further south and west of AOS A. However, the mainly agricultural land that AOS A is located within was excluded from the AONB when it was defined in 1968. The methodology for defining the areas of search excluded land within the AONB. Concerns have been raised by the Norfolk Coast Partnership and the Borough Council of King’s Lynn and West Norfolk regarding the potential for</p>

Main Issues Raised	NCC Planning Officer response
	<p>landscape impacts to the setting of the AONB. Based on these representations and due to its proximity to the Norfolk Coast AONB and the potential for views of AOS A 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. AOS A will therefore not be allocated in the Silica Sand Review because it is considered to be the least preferable area of search.</p> <p>Therefore, due to the proximity of AOS A to the AONB the potential exists for extraction within this area to affect the ability to achieve that part of the vision, relating to necessary development outside the area.</p>
<p>Objections on the grounds of health impacts on the Royal family at Sandringham and Anmer</p>	<p>The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include an air quality assessment of the potential for any emissions, including dust, together with suitable mitigation measures to address any potential impacts. Sandringham is 2.7km from AOS A, and Anmer is 6.2km. It is considered that amenity impacts (such as dust) could be controlled within 250 metres of the area of search with even minimal mitigation measures; Sandringham and Anmer are significantly further away than this, and planning conditions would normally control amenity impacts at source. The Sandringham Estate was consulted on the Silica Sand Review and did not respond.</p>
<p>Objections on the grounds that Green Belt land should not be used for silica sand extraction</p>	<p>There is no designated Green Belt land in Norfolk, the nearest Green Belt land is designated around the city of Cambridge.</p>
<p>Objections on the grounds that extraction could take place 24/7 leading to noise and light pollution</p>	<p>The control of hours of operation is a normal part of the planning application process. A planning condition will normally limit the hours and days of operation, so that extraction can only take place when unacceptable adverse impacts will not occur. No mineral extraction in Norfolk has taken place 24 hours a day 7 days a week. Generally hours of operation relate to the hours of daylight, and due to the nature of mineral extraction artificial lighting is not generally used in extraction areas. Days of operation are generally 5 to 5.5 days per week, with no operations on Sundays.</p>
<p>Objections on the basis of a planning application for silica sand extraction at AOS A</p>	<p>The proposed areas of search in the Silica Sand Review are not a planning application. The Review is a planning policy document which sets out the policy and the broad areas of search where potential silica sand extraction could take place in order to meet the shortfall in planned</p>

Main Issues Raised	NCC Planning Officer response
	<p>provision. Before any extraction could take place a planning application for a smaller parcel within an area of search would need to be submitted, assessed and granted permission. Planning applications on allocated areas need to meet all policy requirements in relation to issues such as landscape, amenity, and transport. Any application which resulted in unacceptable adverse impacts would be unlikely to be recommended for approval regardless of it being located within an area of search.</p>
<p>Objections on the grounds of noise of extraction, including reversing beepers</p>	<p>Well-designed mineral extraction proposals which comply with the adopted Minerals and Waste Development Management policies would appropriately mitigate potential impacts to amenity (such as noise) such that it is considered that no unacceptable adverse impacts would occur. Planning conditions can and are placed on extraction proposals to limit the noise emitted from sites. Mitigation measures can include hours of working, approval of machinery to those which have lower noise emissions, the use of 'white noise' or radio-controlled proximity alarms carried by employees and installed in vehicles. Silica sand extraction does not usually involve large amounts of vehicles or machinery, existing sites use one excavator and approximately half a dozen trucks.</p>
<p>Concerns that silica sand extraction in AOS A would increase flood risk because of the water absorbing qualities of sand</p>	<p>Silica sand extraction is considered, in the national Planning Practice Guidance, to be a 'water compatible' land use which is suitable in all flood zones. If a planning application is made for silica sand extraction within the area of search a site specific flood risk assessment (FRA) would need to be submitted in accordance with Policy DM4 of the adopted Minerals and Waste Core Strategy and the NPPF. The FRA would need to demonstrate that extraction of minerals in this location would not increase flood risk elsewhere. The Environment Agency highlighted in their response, to the Preferred Options, the potential for overburden from extraction operations to be used to strengthen the existing flood defences instead of bringing in material. If this was acceptable there is the potential that this could reduce the cost of maintaining the defences and improve the sustainability of maintenance operations. The potential also exists, on restoration, for any former mineral workings to be used as temporary floodwater storage areas, diverting excess water away from more vulnerable forms of development. Silica sand does not absorb water. Water flows</p>

Main Issues Raised	NCC Planning Officer response
	around the individual grains, hence its use as a water filtration medium.
Concerns that the Areas of Search have been defined and assessed using a desktop analysis only and have not been visited by officers.	Planning Officers have visited the locations surrounding the proposed areas of search on a number of occasions.
Objection that the Silica Sand Review could have allocated preferred areas, but allocated areas of search instead.	The ability for a Mineral Planning Authority to define 'Preferred Areas' rather than 'Areas of Search' for mineral extraction within the plan-making process is largely determined by the certainty of mineral resources. It is possible to define 'Preferred Areas' where there is greater knowledge of the mineral resource; such as from borehole data, at a reasonably high density, together with sample analysis to prove mineral quality. There is very limited knowledge of the silica sand resource in Norfolk. There is virtually no publicly available data on mineral resource quality for the county. The British Geological Survey mineral resources mapping shows only indicative areas, which are based on very widely spread boreholes and records of historic mining. The indicative BGS mapping has separated the silica sand resource into the two principal divisions, the Leziate and Mintlyn members. The Leziate member consists of silica sand which has a grain shape, size and other properties suitable for glass making, this is not the case with the Mintlyn member. The silica sand review has therefore concentrated on the area mapped as containing the Leziate member, as this is what is required to supply the existing glass sand processing plant at Leziate. However, as the BGS mapping is indicative boundaries are not exact. Therefore, as a result of the limited knowledge of mineral resources it would not be possible to define 'Preferred Areas' for silica sand extraction, in any way which would be likely to be found sound at examination. The Mineral Planning Authority are not required to carry out borehole surveys in order to define areas, indeed the national planning practice guidance gives 'Areas of Search' as an appropriate planning measure where information is limited.
Five landowners of a total of six hectares within AOS A, objected to AOS A and said that were not willing for their land to be used for silica sand extraction.	Landowner willingness is not a requirement for the definition of an Area of Search, indeed the larger size of Areas of Search takes into account that not all landowners would be willing for extraction to take place, and so it allows for a smaller parcel to come forward where a landowner is willing. In the case of AOS A, a total of six hectares out of 328 hectares in the AoS would not compromise the ability for a smaller parcel of land to come forward for extraction.

AOS D – land in the vicinity of West Bilney Wood

Main Issues Raised	NCC Planning Officer response
<p>Historic England said that the southern section of AOS D (i.e. south of West Bilney Wood) is too close to Pentney Priory and would harm the setting of the Grade I Listed Buildings and Scheduled Monument. They could not envisage that any workings within this section could be acceptably mitigated. Therefore the southern section of the AOS should be deleted and the removed section should include some of the managed forest to utilise its existing screening effect. Historic England requested additional text to be included in paragraph D.4 as follows: “The area of search must be informed by an appropriate historic landscape/characterisation study and archaeological studies to inform the understanding of significance within and between designated and non-designated heritage assets. The conservation and protection of Pentney Priory within its setting is a matter of acknowledged importance.”</p> <p>Local residents objected AOS D for the following reasons:</p> <ul style="list-style-type: none"> • Common Road is narrow, has no pavement or kerb and lacks any passing places or refuges for pedestrian, cyclists etc. The road is unsuited to additional heavy traffic which would have great difficulty passing on the road. Existing HGVs passing on the road erode the verges. There is a blind corner where the road crosses the trout stream at the Old Lodge which is unsafe. There would be a constant flow of heavy traffic along a road with households along it. The road has flooded right across several times this year. The junction with A47 would need major change for the extra traffic, it is already the site of numerous accidents. • Using the asphalt plant’s track along the Nar and joining the A47 via Mill Drove / East Winch Road would affect far fewer people. Alternative accesses should be considered. • Extra traffic on the route to Leziate would cause disruption. • The proposed changes would have a major impact on the local landscape. • Significant disruption to many forms of wildlife would result from mineral extraction. 	<p>The boundary of AOS D will be amended to move it over 460 metres further north, into the woodland, as requested. The southern edge will therefore be just under 900 metres from Pentney Priory.</p> <p>We do not consider it necessary to amend the supporting text as requested. The supporting text already states that, at the planning application stage, a Heritage Statement assessing the setting of heritage assets will be required and an assessment of the significance of archaeological deposits will be required. The Areas of Search Policy requires a Heritage Statement, an archaeological assessment and a Landscape and Visual Impact Assessment at the planning application stage. These documents are also required as part of the Local List of Validation of Planning Applications and would meet the requirements of the additional text proposed by Historic England.</p> <p>As stated in the Pre-Submission document, the Highway Authority considers that improvements to the junction with Common Road and the A47 are likely to be required. The Highway Authority considers that Common Road is suitable in principal for HGV use and it is a designated HGV route in the Norfolk route hierarchy. If land within AOS D is developed in for silica sand extraction, then the access point for vehicles onto Common Road would depend on the location of the mineral extraction site. It is possible that access could be towards the northern end of Common Road which would reduce the distance that additional HGVs would travel along Common Road. It is also possible, at the planning application stage, for an alternative access to be proposed, by the applicant. The Pre-Submission document states that there is the potential for sand to be transported by a conveyor or pipeline instead of by road.</p> <p>If a planning application is made for silica sand extraction within AOS D, a Transport Assessment or Statement would need to be submitted in accordance with the Areas of Search Policy and adopted policy DM10.</p> <p>Due to the existing landscape of woodland, and agriculture with woodland blocks, it is considered that an extraction site within AOS D could be appropriately screened to mitigate landscape</p>

Main Issues Raised	NCC Planning Officer response
	<p>impacts. If a planning application is made for silica sand extraction within AOS D a Landscape and Visual Impact Assessment would need to be submitted, in accordance with the Areas of Search Policy. In response to a representation from Historic England, the southern boundary of AOS D will be amended to move it over 460 metres further north, into the existing woodland.</p> <p>If a planning application is made for silica sand extraction within AOS D a Biodiversity Survey and Report would need to be submitted in accordance with the Local List for Validation of Planning Applications..</p>

AOS E –land to the north of Shouldham

Main Issues Raised	NCC Planning Officers response
<p>Anglian Water said that there is a public water main within the boundary of AOS E and it is preferable for the water main to be excluded from the AOS. Anglian Water assets are protected by provisions of schedule 14 of the Water Industry Act 1991. If the water main is not excluded then this should be drawn to the attention of applicants and referenced in the AOS Policy.</p> <p>Historic England said that the area of search characteristics should be amended to include the following bullet point: “A number of high value heritage assets, including scheduled monuments, listed buildings and non-designated heritage assets of archaeological interest.”</p> <p>Historic England said that paragraph E.3 should be amended to state: “The area of search must be informed by an appropriate historic landscape characterisation and archaeological study to inform the relationship of land area to work with the conservation and protection of settings and context relationships that protect the setting of Pentney Priory, a scheduled monument and two Grade I listed buildings”.</p> <p>Historic England conclude that the area of search is drawn too broadly and lacks any robust understanding of its impact upon the setting and contextual relationship between a number of heritage assets. To make this area</p>	<p>We do not consider it necessary to exclude the water main from the area of search because it is possible for a water main to be diverted, if necessary, as part of any future mineral extraction within the area of search. This has been carried out satisfactorily at other silica sand extraction sites in Norfolk. It is not considered necessary to amend the Areas of Search Policy because the policy relates to all of the allocated areas of search and this issue is not relevant to all areas of search. The supporting text will be amended to refer to the location of the water main.</p> <p>We do not consider that this text needs to be amended because it would duplicate information in paragraphs E.3 and E.4.</p> <p>We do not consider it necessary to amend paragraph E.3. The supporting text already states that, at the planning application stage, a Heritage Statement assessing the setting of heritage assets will be required and an assessment of the significance of archaeological deposits will be required. The Areas of Search Policy requires a Heritage Statement, an archaeological assessment and a Landscape and Visual Impact Assessment at the planning application stage. These documents are also required as part of the Local List of Validation of Planning Applications and would meet the requirements of the additional text proposed by Historic England.</p> <p>We recognise that the boundaries of AOS E are around 250 metres from four Scheduled Monuments and less than 300 metres from five</p>

Main Issues Raised	NCC Planning Officers response
<p>of search sound would require either its deletion or its reconsideration as a result of further assessment work to inform the evidence base. In accordance with Historic England GPA 1 on settings.</p> <p>Historic England said that paragraph E.5 should be amended to include the following text: “The area of search must be informed by an appropriate settings study to inform the understanding of significance within and between designated and non-designated heritage assets which surround this area of search.”</p> <p>Historic England said they are concerned that an application within the AOS will tend to confine its heritage statement/assessment to the red line application area and not the relationship to the wider area. That could be resolved and if the County Council are minded to pursue AOS E then it is recommended that any application coming forward undertakes a heritage assessment of the whole AOS area. This will allow an assessment of setting and context. It would also be beneficial to plot designated and non-designated heritage assets.</p> <p>Tharros Ltd said that they own approx. 250 hectares of land in AOS E and as a landowner the company is supportive of the proposal to extract silica sand within the AoS.</p>	<p>listed buildings. However, this is a large area of search and it is considered that there are areas within it where a suitable application for silica sand extraction could be made. We do not consider it necessary to amend paragraph E.5. As this is an area of search and not a specific site, we do not consider that a settings study is necessary at this stage. An assessment of the impact of a mineral extraction site within AOS E is required to be carried out at the planning application stage, in accordance with the Areas of Search Policy and the Local List for Validation. A planning application in any area would not confine its heritage statement/assessment to the red line application area. A Heritage and Archaeology statement is required under the Local List for Validation for any application that could potentially impact upon a heritage asset or its setting. It is not considered appropriate for an application for mineral extraction within AOS E to undertake a heritage assessment of the whole area. The area covered by the heritage assessment will need to relate to the area potentially impacted upon by the proposed development, and will be dependent upon the proposed site location.</p> <p>Noted</p>

AOS F – land to the north of Stow Bardolph

Main Issues Raised	NCC Planning Officer response
<p>Anglian Water said that there is a public water main within the boundary of AOS F and it is preferable for the water main to be excluded from the AOS. Anglian Water assets are protected by provisions of schedule 14 of the Water Industry Act 1991. If the water main is not excluded then this should be drawn to the attention of applicants and referenced in the AOS Policy.</p> <p>Historic England requested paragraph F.3 to be amended to refer to the need to assess cumulative impacts on the historic environment consistent with policy DM15.</p>	<p>We do not consider it necessary to exclude the water main from the area of search because it is possible for a water main to be diverted, if necessary, as part of any future mineral extraction within the area of search. This has been carried out satisfactorily at other silica sand extraction sites in Norfolk. It is not considered necessary to amend the Areas of Search Policy because the policy relates to all of the allocated areas of search and this issue is not relevant to all areas of search. The supporting text will be amended to refer to the location of the water main.</p> <p>We do not consider it necessary to amend the supporting text. However, the Areas of Search Policy will be amended to refer to policy DM15 as part of the requirement for a Heritage Statement.</p>

AOS I – land to the east of South Runcton

Main Issues Raised	NCC Planning Officer response
<p>The Borough Council of King’s Lynn & West Norfolk requested a change to the AoS Policy to add specific consideration of potential cumulative impact between sites within AOS I and AOS J.</p> <p>Historic England requested additional text at the end of paragraph I.3 “...and proposing mitigation measures <u>that conserve the significance of the heritage asset which may include screen planting, bunding and other landscape measures</u>”.</p>	<p>There is an existing policy DM15 on cumulative impact within the adopted Minerals and Waste Core Strategy. This policy would apply to all relevant planning applications and therefore we do not consider that it needs to be duplicated in the Areas of Search policy.</p> <p>We do not consider it necessary to amend the supporting text. However, the Areas of Search Policy will be amended to refer to mitigation measures that sustain heritage values, as requested by Historic England.</p>

AOS J – land to the east of Tottenhill

Main Issues Raised	NCC Planning Officer response
<p>The Borough Council of King’s Lynn & West Norfolk requested a change to the AoS Policy to add specific consideration of potential cumulative impact between sites within AOS I and AOS J.</p> <p>Historic England requested additional text at the end of paragraph J.3 “...and proposing mitigation measures <u>that conserve the significance of the heritage asset which may include screen planting, bunding and other landscape measures</u>”.</p>	<p>There is an existing policy DM15 on cumulative impact within the adopted Minerals and Waste Core Strategy. This policy would apply to all relevant planning applications and therefore we do not consider that it needs to be duplicated in the Areas of Search policy.</p> <p>We do not consider it necessary to amend the supporting text. However, the Areas of Search Policy will be amended to refer to mitigation measures that sustain heritage values, as requested by Historic England.</p>

Areas of Search Policy

Main Issues Raised	NCC Planning Officer response
<p>Historic England recommended additional policy text as follows: (3rd bullet) “The LVIA will include the Norfolk Coast AONB, Core River Valleys, Scheduled Monuments <u>and non-designated heritage assets of archaeological interest</u>, Listed Buildings and Conservation Areas and their settings where appropriate, together with suitable mitigation measures to <u>manage change to a significant place in its setting in ways that will best sustain its heritage values.</u>”</p> <p>(4th bullet) “A Heritage Statement to identify heritage assets and their settings, assess the potential for impacts and identify appropriate mitigation <u>to sustain heritage values</u> if required.....The completed statement will comply with the requirements of policies CS14,</p>	<p>The policy requirement for a LVIA will be amended as follows: “The LVIA will include the Core River Valleys, Scheduled Monuments, non-designated heritage assets of archaeological interest, Listed Buildings and Conservation Areas and their settings where appropriate, together with suitable mitigation measures to address the impacts and manage change in ways that will best sustain heritage values.”</p> <p>The policy requirement for a Heritage Statement will be amended as requested.</p>

Main Issues Raised	NCC Planning Officer response
<p>DM8, DM9 and DM15.”</p> <p>Sibelco and the Mineral Products Association objected and said that the start of the policy should “...require any planning application within the AoS to address, as appropriate, the requirements below” instead of “to address, in particular, the requirements below” because the current wording pre-empts the findings of any scoping exercise.</p> <p>Sibelco and the Mineral Products Association objected and said that the first bullet point of the policy should be amended to state “... to meet the requirements of new or existing processing plant and equipment or any new capital expenditure (as set out in the NPPF)”.</p> <p>RSPB said that they strongly support the ecological protection and restoration measures set out in the plan, but note concern over the wording of the areas of search policy and recommend additional wording to clarify that the AoS Policy only provides policy support to ensure that the remainder of the silica sand shortfall in the Minerals Plan can be met.</p> <p>BC KL&WN said that the Areas of Search Policy should contain a requirement for an air quality assessment compliant with policy DM13.</p> <p>BC KL&WN objected to the AoS Policy for the following reasons: It must be assumed that if an AoS is identified that there is the prospect that it could be fully used into the future for the extraction of silica sand and therefore there should be an appreciation of the ultimate in use and post use states.</p>	<p>In order for the policy to be effective in its protection of the environment, a planning application within an area of search will need to address all of the requirements of the policy. The level of detail required to meet each of the policy requirements will depend on the location of the mineral extraction site. Therefore we do not consider it appropriate to amend the policy</p> <p>We do not consider it necessary to amend the policy. The Areas of Search policy will apply to planning applications which come forward to meet the requirement of adopted Policy CS1. The Silica Sand Review is not reassessing any future requirement for new processing plant or proposed capital expenditure, this will be a matter for the future review of Core Strategy policies.</p> <p>The Areas of Search Policy states that an application within an area of search will be required to address the shortfall in silica sand supply to meet the requirements of the existing processing plant. We do not consider that the policy wording should be amended. The NPPF states that there should be a stock of permitted reserves of at least 10 years for silica sand sites. At the end of 2015 the permitted reserves in Norfolk were 3.5 years, due to a lack of recent planning applications.</p> <p>The Areas of Search Policy already contains this requirement.</p> <p>The Silica Sand Review is seeking to meet the shortfall up between the adopted plan provision and the adopted site allocations for silica sand extraction to the end of 2026 only. This shortfall is approximately equivalent to 40 hectares of extraction which could come forward as a planning application for a smaller parcel of land within any of the Areas of Search and/or the specific site allocation. There is no intention within the review for any of the areas of search to be fully used for silica sand extraction. Due to the depth of silica sand and the height of the water table in existing silica sand workings, it is likely that silica sand extraction sites would largely be restored to water. It is considered that the requirements for a comprehensive working and restoration plan in the Areas of Search Policy,</p>

Main Issues Raised	NCC Planning Officer response
<p>The use of these locations within the countryside will have significant impacts on the local landscape, and the perceptions of the character of those areas. Whilst the Silica Sand Review makes extensive reference to viewpoints and visibility, there is a more general point about the physical change and the associated traffic and character impacts that will occur over a significant period of time. It is not clear that any of the assessment measures adequately consider the 'character' of the locality as perceived by local residents and that this perspective has been taken into account. Significant effort has been put into considering more site focussed and localised impacts, but the wider impact is played down. The drained and open coastal marshes around the Snettisham area in the north of the Borough whilst not all in the AONB, is a significant asset to the Borough. Any diminution of the character type diminishes the wider value. It should clearly be demonstrated that impacts on the tourism economy are taken into account and this vital industry in the area will not be detrimentally affected.</p> <p>Some of the AoS are hundreds of hectares in size. If an area of 40 hectares is what is required to 2026 the potential blight for a far wider area for a far longer period is unrealistic. The total AoS amounts to some 1400 hectares. The search is unfocused and would cause undue stress to communities in the prospective areas. It is irresponsible to identify such wide</p>	<p>compliant with adopted Policy DM14, is the appropriate method for requiring appropriate site restoration at the planning application stage. It is considered that the requirements for a Landscape and Visual Impact Assessment in the Areas of Search Policy at the planning application stage, in accordance with adopted policies CS14, DM2 and DM8 is the appropriate method to deal with landscape impacts and mitigation measures at the planning application stage.</p> <p>Minerals can only be extracted where they occur. The Areas of Search Policy requires a Landscape and Visual Impact Assessment to be submitted with any planning application within an area of search. Landscape character has been taken into account in the assessments of each area of search as detailed in the Pre-Submission document. Well-designed mineral extraction proposals which comply with the adopted Minerals and Waste Core Strategy and Development Management Policies would appropriately mitigate potential impacts to landscape and amenity (such as noise and dust) such that it is considered that no unacceptable adverse impacts would occur that would be likely to compromise the attractiveness of the area for tourism. Positive restoration benefits for tourists may occur in the medium to long term, as has happened at other former mineral workings in Norfolk, such as Pensthorpe Natural Park and Whitlingham. RSPB Snettisham is also an area of former mineral workings.</p> <p>With specific reference to the agricultural land on the drained coastal marshes around Snettisham, within AOS A. Whilst AOS A is not within the AONB, due to its proximity to the Norfolk Coast AONB and the potential for views of AOS A 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 will not be allocated in the Silica Sand Review because it is considered to be the least preferable area of search.</p> <p>The 1,384 hectares of areas of search which are allocated in the Pre-Submission document are the result of the methodology used to define the least constrained areas of the Leziat Bed silica sand resource in planning terms. There is no guarantee that operators or landowners are interested in developing within the areas of search for silica sand extraction. This is the</p>

Main Issues Raised	NCC Planning Officer response
<p>areas for a much smaller area of need.</p> <p>There is no guarantee that operators are actually willing to investigate or develop these areas. It is intrinsically unreliable to accept as evidence of viability that landowners have not asked for these sites to be excluded. Positive evidence of deliverability must be demonstrated.</p> <p>The Plan accepts that the material extracted will need to be taken by road to be processed at Leziate. From the north a main artery is the A149, and B1145. The A149 is accepted to be part of the strategic route network, but it is also significantly congested in peak summer months. To add to this enough lorry journeys capable of replicating the entire trainloads of material conveyed from Leziate could cause significant detriment to visitors and local traffic. A wider appreciation is necessary before an 'in principle' acceptance in the Plan is given. From the southern AoS the A10 or A134 are the routes proposed to be used, presumably passing through the Hardwick junction. Again to rely on the fact that the routes are primarily designated lorry routes would seem to miss the point. Whilst they may be of a certain standard they carry significant amounts of other traffic, at the moment they are a recognised trouble spot in visitor terms.</p>	<p>reason why areas of search are much larger than the actual area of land that is expected to be required for extraction during the plan period, to 2026. The allocation of areas of search for future mineral extraction does not fall within any of the definitions of 'blighted land' contained in Schedule 13 of the Town and Country Planning Act 1990 (as amended by the Planning and Compulsory Purchase Act 2004) because the areas of search have not been identified for the purposes of a relevant public authority function or any of the other land uses contained in Schedule 13.</p> <p>The definition of Areas of Search in the National Planning Practice Guidance specifically excludes the requirement for landowners to be supportive of minerals development (which is included in the definition of specific sites). It is recognised that there is no guarantee that operators or landowners are interested in developing within the areas of search for silica sand extraction. This is the reason why areas of search are much larger than the actual area of land that is needed for extraction. Areas of search do not require positive evidence of deliverability. It is because sufficient specific sites and preferred areas have not been proposed by landowners or mineral operators that we have needed to define areas of search in the Silica Sand Review.</p> <p>The Areas of Search Policy requires a planning application for silica sand extraction within an area of search to include a Transport Assessment or Statement which considers the potential for transport impacts and identifies appropriate mitigation measures to address these impacts. It would be for the case officer, determining any future planning application for silica sand extraction, to consider what level of vehicle movements from an extraction site within any of the areas of search would be appropriate, based on a Transport Assessment and in consultation with the Highway Authority. However, the Highway Authority considers that an acceptable technical solution could be found in principle. There is the potential that planning conditions on any planning permission granted, could control the rate of extraction or vehicle movements from the extraction site if this was considered necessary.</p> <p>Average daily traffic movement data for the A149 between Knights Hill and Snettisham shows that whilst there is an average of just over 15,700 traffic movements each day, average daily traffic</p>

Main Issues Raised	NCC Planning Officer response
<p>Transport and landscape character are listed in the Areas of Search policy, but these miss a wider point about impacts on the area. Whilst these matters are expressed in the policy to be addressed, the potential detailed outputs are so fundamental to the impact, and stress for local communities, that they should be undertaken before an area can be designated as an AoS. A transparent interrogation of the outcomes could take place rather than as currently envisaged items to be addressed when an application is made.</p> <p>The BC KL&WN commented on the need for any planning application to include a full assessment of noise in line with the Planning Practice Guidance, including works to attenuate noise and working hours. They noted that the noise limits set in the PPG are generous in terms of the allowable levels of noise. In many of the areas of search the background noise levels are likely to be considerably lower than the maximum of 55dB LAeq 1hr. In addition they would normally consider an increase of up to 10dB (LA90, 1h) in noise levels as indicator that complaints are likely to be received. Whilst in planning terms we will expect compliance with the PPG this would be the minimum control expected and would not necessarily protect the operator from action under the Environmental Protection Act 1990 should justified complaints of Statutory Nuisance be received.</p>	<p>movements vary across the year. August records the highest average daily traffic movements with just over 19,000 traffic movements, and the lowest is record in January at just over 12,250 traffic movements.</p> <p>It is not possible to carry out a transport assessment or Landscape and Visual Impact Assessment at this stage to provide a detailed assessment because these details will depend on the specific proposals of a planning application within the wider area of search, including site location, site size, proposed landscaping, access routes and vehicle movements. Based on the area of search assessments, it is considered that the Areas of Search Policy, along with the adopted Minerals and Waste Core Strategy and Development Management Policies would be appropriate to address these issues at the planning application stage.</p> <p>Norfolk County Council's Local List for Validation of Planning Applications requires a Noise Assessment to be submitted with all planning applications for mineral extraction and details what the Noise Assessment report should contain. Planning conditions on any planning permission granted could control working hours and require measures to mitigate noise if necessary. This would be in line with the Planning Practice Guidance. The comments regarding the noise limits in the PPG are noted.</p>

Glossary

Main Issues Raised	NCC Planning Officer response
<p>Historic England recommends the inclusion of 'context of a heritage asset' to be defined as "any relationship between a place and other places, relevant to the values of that place." This is important in the Silica Sand Review due to the inter-relationship between historic assets and their setting, including landscapes that surround and link them.</p> <p>Historic England recommends the inclusion of 'significant</p>	<p>This phrase is not used in the Silica Sand Review and therefore its definition is not required in the glossary.</p> <p>This phrase is not used in the Silica Sand Review and therefore its</p>

places' because this term covers both designated and non-designated heritage assets.	definition is not required in the glossary.
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Supporting documents

Main Issues Raised	NCC Planning Officer response
Sustainability Appraisal	
Natural England stated that it is generally satisfied that the Sustainability Appraisal is through and has been assessed correctly in relation to the natural environment.	Noted
Habitats Regulations Assessment – Task 1 Screening	
Natural England stated that it did not have any further comments to make on this document.	Noted
Habitats Regulations Assessment – Task 2 Appropriate Assessment	
Natural England stated “Having considered the assessment, and the measures proposed to mitigate for all identified adverse effects that could occur as a result of the proposal, Natural England advises that we concur with the assessment conclusions, subject to the mitigation measures (as outlined under 3.4 under page 2-13 of the report) being secured in any subsequent permissions given for the extraction of silica sand within AOS A. For clarity, we recommend that text us added which states that any future planning applications would need to be accompanied by a project level HRA, in AOS A or for the site specific allocation SIL01.	Noted