Norfolk Minerals and Waste Local Plan

Main Matter 3 – Whether the Plan makes adequate provision for the steady and adequate supply of aggregate and industrial minerals

Norfolk County Council

Hearing Statement

May 2024

Issue: Whether the provision made in the Plan for the future supply of aggregate and industrial minerals would deliver a steady and adequate supply.

1. **Is the basis for the calculation of the future demand for sand and gravel, carstone and silica sand clear and robust enough in order to provide an appropriate basis for determining future demand?**

NCC response:

1.1 Yes, the calculations used are clear and robust in providing an appropriate basis for determining future demand. The calculations are set out for sand and gravel in NM&WLP paragraphs MP1.2-MP1.9, and for carstone in paragraphs MP1.10-MP1.15. For sand and gravel and carstone, the County Council has data on annual production going back well over 20 years over a variety of economic conditions, and over 10 years' of data on silica sand production. The annual Local Aggregate Assessment (documents B3 and B4) analyses production, by using trend data for a rolling 10-year period and a rolling 3-year period, together with other relevant data. This is in accordance with the PPG (paragraphs 27-061-20140306 to 27-064-20140306). The calculations of forecast sand and gravel, and carstone demand contained within the submitted NM&WLP are derived from this data and therefore robustly based on empirical data and clear analysis.

1.2 The basis for the calculation of plan provision for silica sand in the NM&WLP is the maximum permitted throughput for the processing plant site at Leziate, which is 0.754 million tonnes per annum. While the 10-year and 3-year rolling averages supplied by the operator indicate totals above this value, it remains the maximum permitted by the lawful development certificate and is therefore an appropriate amount on which to base plan provision. The calculations are set out in NM&WLP paragraphs MP1.16-MP1.20. The NPPF (December 2023) paragraph 220 part (c) (NPPF paragraph 214(c), September 2023) directly links the provision of a stock of silica sand reserves to support the maintenance and improvement of existing plant and equipment.

2. **Is the application of an additional 10% to the 10-year average sales figures sufficient to predict the forecast need for sand and gravel and carstone over the Plan period?**

NCC response:

2.1 Yes, the additional 10% provides sufficient headroom to provide for a steady and adequate supply of aggregate over the Plan period. The submitted NM&WLP uses the 10-year rolling sales average for the period 2011 to 2020, which was 1.369 million tonnes (Mt) of sand and gravel and 0.075 Mt of carstone. The addition of 10% leads to a forecast need of 1.506 Mt of sand and gravel and 0.083 Mt of Carstone per annum.

2.2 Annual carstone production is variable and has been higher than the forecast 0.083 Mt six times since 2011 (including in 2021 and 2022). However, the 3-year average has only been higher than 0.083Mt 3 times since 2011. The 10-year average reduced every year from 0.134 Mt in 2011 down to 0.078 Mt in 2016. Since 2016 the 10-year average has only been higher than 0.083 Mt

once. Therefore, the additional 10% to the 10-year average sales is sufficient to predict the forecast need for Carstone over the Plan period.

2.3 Annual sand and gravel production has only been higher than the forecast 1.506Mt three times since 2011 (from 2016-2018). The 3-year sales average has only been higher than 1.506Mt twice since 2011 (in 2017 and 2018) and the 10-year sales average has not been above 1.506 Mt since 2014. Therefore, the addition of 10% to the 10-year average sales is sufficient to predict the forecast need for sand and gravel over the Plan period.

2.4 Given the fluctuations in the normal economic cycle, it is considered that there would be sufficient years of production below this figure to more than compensate for any years of peak economic activity which exceed it.

3. To what extent does the Local Aggregate Assessment for calendar year 2022 (Published February 2024) have any effect on the calculation of the future demand for sand and gravel, carstone and silica sand.

NCC response:

3.1 Sand and gravel: The updated data contained within the 2022 Local Aggregate Assessment (LAA) does not indicate any fundamental changes to the market for sand and gravel such that a change in the method of calculation for future demand would be required. While the latest year's production was slightly down on the previous year (1.367Mt in 2022 compared to 1.491MT in 2021), the 10-year rolling average increased (from 1.39Mt in 2021 to 1.41Mt in 2022) as a low production year in the aftermath of the 2009 financial crisis was removed from the figures. The 3-year rolling average was up slightly (from 1.37Mt in 2021 to 1.39Mt in 2022) but below the 10-year average. The 10-year average in the 2022 LAA benefits from several higher production years in middle of the data series when economic activity had increased. The NM&WLP provision of 1.506mtpa for sand and gravel is higher by some margin than either the 10-year or 3-year averages within the 2022 LAA, despite the removal of the lower production year from the beginning of the data series, which has led to a slightly higher 10-year plus 10% figure for 2022 of 1.554mtpa. However, this is considered to be transitory and not be an indication of sustained upward growth in demand.

3.2 If 10% was added to the 2022 10-year sales average of 1.413Mtpa this would increase the annual forecast sand and gravel need to 1.554Mtpa. Over 18 years, the forecast need would be 27.97Mt, although 18 years from 2022 would be 2040 and the submitted plan period is to 2038. Therefore, over 16 years (from 2023 to 2038) the forecast need would be 24.864Mt. The sand and gravel permitted reserve at the end of 2022 was 17.954Mt, therefore the shortfall would be 6.91Mt. The landbank figure at the end of 2022 does include the permitted reserve from a number of the mineral extraction site allocated in the NM&WLP which have already received planning permission.

3.3 Carstone: The carstone figures within the 2022 LAA do not indicate any fundamental changes to the market for carstone such that a change to the method of calculation for plan provision would be required. While the 3-year rolling average increased from 0.078Mt in 2022 to 0.098Mt in 2022, this is based on very low production figures and the 10-year average decreased from 0.083Mt in 2021 to 0.081Mt in 2022. The plan provision in the NM&WLP for carstone is

0.083 Mtpa which is slightly higher than the 10-year sales average in the 2022 LAA, with the 3-year average being higher at 0.098 Mtpa. However, due to the small volumes produced, the carstone market is prone to significant swings in production levels from year-to-year dependent on individual contracts for material.

3.4 If 10% was added to the 2022 10-year sales average of 0.081 Mtpa this would increase the annual forecast Carstone need to 0.089 Mtpa. Over 18 years, the forecast need would be 1.602Mt, although 18 years from 2022 would be 2040 and the submitted Plan period is to 2038. Therefore, over 16 years (from 2023 to 2038) the forecast need would be 1.424Mt. The Carstone permitted reserve at the end of 2022 was 1.423Mt, therefore the shortfall would only be 0.001Mt in 2038.

3.5 Silica sand: The silica sand assessment, published together with the 2022 LAA, provides 10-year and 3-year rolling average figures for silica sand production. These figures are supplied by the mineral operator; however, they do not supply annual production figure. The 10-year rolling averages show a consistent increase in production since 2013 (up to 0.826 Mt in 2022). However, this is not mirrored within the 3-year rolling averages over the same time period which have fluctuated and were 0.792Mt in 2022. As the maximum throughput for the processing plant is controlled through a lawful development certificate, which is then used as the basis for Plan provision for silica sand it is not considered appropriate to increase this figure. There, over 16 years (from 2023 to 2038) the forecast need would be 12.064 Mt. The silica sand permitted reserve at the end of 2022 was estimated to be 3.084Mt, which included the permitted reserve in one of the allocated silica sand sites (SIL01). Therefore, the remaining shortfall during the Plan period to 2038 would be 8.98Mt.

4. **Does the calculation of the forecast need for sand and gravel, carstone and silica sand adequately reflect the need to maintain a relevant landbank at the end of the Plan period?**

NCC response: Yes, the period covered by the Minerals and Waste Local Plan is until the end of 2038. There is no requirement in the NPPF or PPG for the plan to allocate sites to enable a landbank (of at least 7 years for sand and gravel, 10 years for Carstone and 10 years for silica sand) to exist at the end of the Plan period. A landbank of permitted reserves is calculated from the extant planning permissions for mineral extraction (not from sites allocated in the plan). The Town and Country Planning (Local Planning) England Regulations 2012 (as amended) requires the policies in plans to be reviewed every 5 years. The review process would ensure that sufficient sites were allocated to cover a new 15-year plan period before the current plan period to 2038 ended. In addition, the Mineral Planning Authority will monitor the landbank situation annually through the Local Aggregate Assessment and take appropriate action as necessary. It is also relevant to note that the Carstone landbank at the end of 2022 was calculated to be 16 years and if the one allocated Carstone site in the NM&WLP was granted planning permission this additional 1.416Mt would increase the Carstone landbank to over 31 years.

5. Is Policy MP1 consistent with NPPF paragraph 214 and footnote 74?

NCC response:

5.1 Yes, Policy MP1 is consistent with this NPPF (Sept 2023) paragraph and footnote (now NPPF [December 2023] Paragraph 220, and footnote 78). Paragraph 214 relates to the need to plan for a steady and adequate supply of industrial minerals. In Norfolk, silica sand is the only currently extracted industrial mineral. Paragraph 214 part c, states that maintaining a stock of permitted reserves to support the level of investment required for new or existing plant, and the maintenance and improvement of existing plant and equipment. Footnote 74 provides additional detail regarding the permitted reserves referred to in NPPF 214, part c; stating that the reserve should be at least 10 years for individual silica sand sites, or at least 15 years where significant new capital is required.

5.2 Policy MP1 sets out a figure to deliver at least 10.34 million tonnes of silica sand during the Plan Period. This is based on the shortfall in the calculation of forecast need within NM&WLP paragraph MP1.20. The basis of the calculation is the maximum permitted throughput of the processing plant at Leziate of 0.754Mt per annum, as defined within the lawful development certificate for the plant site. All silica sand extracted in Norfolk passes through the processing plant site.

5.3 Policy MP1 states that the landbank (permitted reserves) should be maintained at a level of at least 10 years' supply, where practicable. The policy states 'where practicable' because this is subject to suitable planning applications being submitted by mineral operators for determination. If suitable applications are not made, then it is possible for the landbank to fall below 10 years' supply regardless of the aim of policy MP1 to maintain them at 10 years' supply minimum. Based on the maximum permitted throughput of the Leziate processing plant site, of 0.754 Mt per annum, a permitted reserve of at least 7.54Mt of silica sand is required to meet the level of at least 10 years' supply set out in the NPPF. The most recent year that permitted reserves for silica sand were reported to be above 7.54Mt was 2007. The highest level of permitted reserves of silica sand reported over the past 10 years (from 2013 to 2022) were 4.3Mt in 2013.

5.4 Policy MP1 does not include reference to maintaining a landbank of at least 15 years' supply because no evidence has been provided by Sibelco, during the NM&WLP process, that new capital is required for the silica sand processing plant at Leziate.

5.5 Policy MP1 also states that planning applications for silica sand extraction, on areas located outside the allocated sites, would be considered on their own merits in accordance with the policies in the NM&WLP. The reasoning behind this, is that insufficient sites have been proposed which are suitable for allocation, and that further evidence provided during the plan-making process (such as the objection from the MoD Defence Infrastructure Organisation) has meant that the previously adopted 'Areas of Search' are now considered to be undeliverable such that planning permission for silica sand extraction could not be reasonably anticipated and may not be granted. Further detail is contained in our response to question 10 below and in the Silica Sand Topic Paper (document B1).

6**. Should Policy MP1 be more explicit about the need to maintain landbanks at the end of the Plan period?**

NCC response: No, there is no requirement in the NPPF or PPG for the plan to allocate sites to enable a landbank (of at least 7 years for sand and gravel, 10 years for Carstone and 10 years for silica sand) to exist at the end of the Plan period. A landbank of permitted reserves is calculated from the extant planning permissions for mineral extraction (not from sites allocated in the plan). The Town and Country Planning (Local Planning) England Regulations 2012 (as amended) requires the policies in plans to be reviewed every 5 years. In addition, the Local Aggregate Assessment considers the level of the mineral landbanks each year, and NPPF (December 2023) paragraph 219(e) (NPPF September 2023, paragraph 213(e)) states that the landbank of aggregate minerals should be used to indicate the additional provision that needs to be made in mineral plans. The national PPG (Minerals) provides further detail at Paragraph 080 (Reference ID: 27-080-20140306) that landbanks should be used principally as a trigger for a MPA to review current provision of mineral allocations in the plan and consider whether a review of the plan is necessary. Therefore, the LAA and the 5-yearly review process would ensure that sufficient sites were allocated to cover a new 15-year plan period before the current plan period to 2038 ended.

7. **In considering mineral extraction proposals for sand and gravel outside of allocated sites, should Policy MP1 provide a degree of flexibility by referring to the need to demonstrate shortfalls in meeting demand or failure to maintain the landbank would be contributing factors to justify the proposals?**

NCC response: Policy MP1 does provide a degree of flexibility through part a) which requires applicants to demonstrate overriding justification for proposed sand and gravel extraction outside of allocated sites. Paragraph M1.27 of the NM&WLP includes further detail on how overriding justification, on the basis of fulfilling mineral need, will be assessed. Therefore, such justification would include shortfalls in extraction to meet demand or a low landbank.

8. **Should the Plan provide any distinction and/or protection for the use of carstone as dimension stone, particularly in relation to its use in conservation work and to maintain local vernacular, as opposed to its use as crushed rock?**

NCC response: Carstone requires a certain proportion of iron and level of consolidation to enable it to be suitable for producing dimension stone. Due to the variable nature of the geological deposit, it is not possible to ascertain a tonnage for the permitted reserve that would be suitable for use as dimension stone through trial boreholes. However, as carstone suitable for use as dimension stone has a far higher market value than that of construction fill it is reasonable to assume that the operator will ensure that they get best value for any carstone of sufficient quality to be used as dimension stone, if such material is found during extraction. Therefore, we consider that the plan does not need to provide any specific distinction or protection for the use of carstone as dimension stone.

9. Is Policy MP2 in relation to silica sand unduly restrictive regarding the need for new sites to be located where they are able to access the existing processing plant and railhead at Leziate?

NCC response: The NPPF (December 2023) specifies in paragraph 220(c) (NPPF September 2023, paragraph 214(c)), that maintaining supply for industrial minerals is linked to the maintenance and improvement of existing plant, and therefore it is appropriate for new extraction sites to be capable of accessing the existing processing plant site. As the principal use of silica sand extracted in Norfolk is for glass-making, considerable processing and blending is required to produce the feedstock. Most of the processed sand is transported by rail from the processing plant at Leziate to the factories using the sand. No proposal has been submitted to the NM&WLP process by any mineral operator suggesting that a new silica sand processing plant is being considered in Norfolk. Given the volumes of silica sand extracted per annum and the nature of the highway network within the resource area, it would be difficult for transportation of mineral entirely via the public highway not to have unacceptable impacts. Therefore, Policy MP2 is not unduly restrictive regarding the need for new silica sand extraction sites to be located where they are able to access to existing processing plant and railhead at Leziate.

10. Does the Plan adequately justify why an "Area of Search" approach for silica sand has been discounted, particularly as the sites proposed to be allocated would not meet the forecast demand and in circumstances where the Area of Search approach was adopted in the Silica Sand Review in 2017?

NCC response:

10.1 Yes, NM&WLP paragraphs MPSS1.1 and MPSS1.2 set out the reasons why it is now considered that Areas of Search do not provide a deliverable method to plan for future silica sand provision. Further detail is provided in Chapters 12 and 13 of the Silica Sand Topic Paper (document B1). If considered necessary, further information from Chapters 12 and 13 of the Silica Sand Topic Paper could be included within the supporting text for Policy MPSS1 in the NM&WLP.

10.2 Circumstances have changed since the adoption of the Silica Sand Review which included 'Areas of Search'. Whilst they were consulted at the time, the Ministry of Defence (Defence Infrastructure Organisation), did not make any comments on the Silica Sand Review. The largest Area of Search, and the one with the highest potential to contain a viable extraction site was AOS E (located within the parishes of Wormegay, Shouldham, Marham and Shouldham Thorpe), which is less than 3km from RAF Marham, now the main UK operating base for RAF F35 aircraft. At the Regulation 18 consultation stage on the NM&WLP, the MOD (DIO) submitted an objection to a proposed Preferred Area for silica sand extraction (SIL02), which was partly within AOS E, as well as raising concerns for the remainder of AOS E and other areas of search. The MOD (DIO) objection was regarding aviation safety due to potential for birdstrike hazard during the operation and restoration of any mineral extraction to open water.

10.3 Paragraph 13.4 of the Silica Sand Topic Paper sets out the reasons we consider that there are exceptional circumstances in Norfolk to rely largely on a criteria-based policy which sets out general conditions against which applications for silica sand extraction will be assessed, as follows:

"• having tried since 2008, through three separate local plan processes to find sufficient suitable specific sites or preferred areas for silica sand extraction only two suitable sites have been submitted and allocated.

• a thorough sieve-mapping process has been carried out to find suitable areas of search for silica sand extraction as described elsewhere in this paper. The result of the sieve-mapping process and the previous local plan processes did not find any suitable areas of the silica sand resource to designate as Areas of Search north of the A47, mainly due to the location of the Norfolk Coast AONB, Special Protection Areas and Special Areas of Conservation.

• The bird strike consultation zone for RAF Marham covers nearly all of the silica sand resource to the south of the A47. The Ministry of Defence (Defence Infrastructure Organisation) responded to the Minerals and Waste Local Plan consultations and raised concerns about all of the proposed Areas of Search because wet working and restoration at these locations would have the potential to attract and support hazardous waterfowl.

• due to the depth of silica sand resources in relation to the groundwater level it is likely that the mineral sites will be extracted wet and largely restored to water (as has historically been the case for silica sand extraction in Norfolk). Therefore, the MOD (DIO)'s concerns regarding birdstrike risk make silica sand extraction in this location unlikely to be deliverable.

• The area of the silica sand resource with the highest elevations within the birdstrike consultation zone (therefore least likely to be worked wet or restored to open water) is Shouldham Warren which has a number of Public Rights of Way within it and permissive public access provided by Forestry England. Due to the importance of access to open spaces (NPPF paragraphs 98 and 99) and Forestry England's aim to make land within its management accessible to the public, Shouldham Warren is also concluded to be undeliverable for future silica sand extraction.

• The one potential 'Preferred Area' submitted by a mineral operator for consideration in the Minerals and Waste Local Plan (SIL 02 – land at Marham and Shouldham) is not suitable to allocate due to the size of the extraction proposed within 5km of RAF Marham and the likelihood of the site being restored to open water, there is a high risk of unacceptable adverse impacts on aviation safety and the MOD (DIO) has objected to the proposal. In addition, Norfolk County Council's Historic Environment Service concluded that mineral extraction within the north-eastern part of the site would have a relatively severe impact on the setting of Pentney Priory and should not be allocated.

• Together, these exceptional circumstances mean that the Areas of Search currently allocated in the Minerals Site Allocations DPD are no longer considered to be a deliverable method to use to plan for future silica sand provision in Norfolk."

11. **Does the Plan adequately explain the relationship and application of Policies MP2 and MPSS1 in relation to silica sand?**

NCC response:

11.1 Yes, Policy MP2 identifies the overall spatial strategy while Policy MPSS1 sets out the detailed requirements for applications for silica sand extraction to address. NM&WLP paragraph MP2.1 outlines the principles behind the spatial strategy for minerals development including for silica sand. Key among these principles is that 'minerals can only be worked where they occur'; further detail on this is provided in MP2.2. Paragraph MP2.4 identifies that the principal transport mode for silica sand is by rail from the processing plant at Leziate, and that the spatial preference for new silica sand extraction sites would be from within the available mineral resource and capable of accessing the existing processing plant via conveyor, pipeline or off-public highway haul routes, so as to reduce the potential for unacceptable impacts from HGV traffic. These principles are set out in Policy MP2.

11.2 Paragraph MPSS1.3 states that policy MPSS1 will be used in the determination of applications for silica sand extraction on unallocated sites so as to address the shortfall in suitable proposed specific site allocations. Policy MPSS1 provides a series of policy requirements tailored to silica sand extraction in much the same way as policy requirements are used within specific site allocations.