Addendum to the Habitats Regulations Assessment Screening Report and Appropriate Assessment

for the

Early Partial Review of the Kent Minerals and Waste Local Plan 2013-30 & Kent Mineral Sites Plan

Kent County Council

Prepared by:
ECUS Ltd.
Brook Holt
3 Blackburn Road
Sheffield
S61 2DW
0114 266 9292

May 2019

ECUS Ltd

Report to:	**Kent County Council**
Report Title:	**Ecus Style Guide**
Version:	**1.0**
Issue Date:	**May 2019**
Report Ref:	**12966**

Originated By:

Phil Lomax
Technical Director, Ecology Date: 1st May 2019

Reviewed By:

Rachel Barker
Principal Environmental Consultant Date: 1st May 2019

Approved By:

Phil Lomax
Technical Director, Ecology Date: 1st May 2 019

Prepared by:
ECUS Ltd.
Brook Holt
3 Blackburn Road
Sheffield
S61 2DW
0114 2669292

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1. Early Partial Review of the Kent Minerals and Waste Local Plan 2013-30 – Regulation 19 Submission

1.1 Background

1.1.1 Kent County Council (KCC) is undertaking an early Partial Review of the Kent Minerals and Waste Plan. Following the adoption of the Kent Minerals and Waste Local Plan 2013-30 (KMWLP) in July 2016, further assessments suggest that the level of waste management capacity required to maintain net self-sufficiency within Kent is different to what was originally thought. KCC is therefore undertaking an early partial review of the KMWLP to amend several of the policies relating to waste management. This is to ensure that Kent benefits from an up-to-date strategy for waste management capacity and will also inform whether a Waste Sites Plan is needed.

1.1.2 Policy CSW5 Strategic Site for Waste sets out the criteria to be applied to the assessment of any forthcoming application relating to the Strategic Site Allocation at Norwood Quarry. The landfill at Norwood Quarry on the Isle of Sheppey accommodates the hazardous flue ash residues from the Allington Energy from Waste (EfW) facility that feature heavily in the Waste Management Unit (WMU) contracts for residual MSW, but it has limited consented void space remaining. To make provision for this waste for the duration of the Plan, it is considered essential that Kent has the capacity to deal with these residues an extension to Norwood Quarry is identified. Enabling the continued management of hazardous flue ash within Kent has the added benefit of contributing to achieving the continued net self-sufficiency in hazardous waste management capacity.

1.1.3 The County Council in its early partial review of the Plan seeks to amend policy CSW5. The amended Policy CSW5 Strategic Site for Waste states that: "*The proposed extension areas for Norwood Quarry and Landfill Site, Isle of Sheppey are together identified as the Strategic Site for Waste in Kent. The site location is shown on Figure 19. Planning permission will not be granted for any other development other than mineral working with restoration through the landfilling of hazardous (flue) dust ash residues from Energy from Waste plants in Kent, unless it can be demonstrated that the equivalent capacity for treatment or disposal can be provided elsewhere in Kent. Mineral working and restoration by hazardous landfill and any ancillary treatment plant at the Strategic Site for Waste will be permitted subject to meeting the requirements of the development plan and the following criteria:*

- *1. Demonstration that the site can be suitably restored in the event that landfilling of hazardous (flue) dust ash residues from Energy from Waste plants were to cease before completion of the final landform due to changes in treatment capacity and/or government policy that may result in the diversion of these wastes from landfill. an assessment has-been made that alternative treatment technologies for hazardous flue dust from Energy from Waste plants are not economically viable;*
- *2. An air quality assessment is made of the impact of the proposed development and its associated traffic movements (84) on the Medway Estuary and Marshes Special Protection Area and the Swale Special Protection Area sites and if necessary mitigation measures are required through planning condition and/or planning obligation; and;*
- *3. The site and any associated land being restored to a high quality standard and appropriate after-use that accords with the local landscape character 4. Any proposal for this site would need to consider the requirements of other relevant*

polices of this Plan and in particular would need to consider any impacts on the A2500 Lower Road. Depending on the nature of any proposal it may be necessary for the developer to make a contribution to the improvement of this road".

1.2 Natural England comments

1.2.1 In commenting on the amended Policy CSW5, Natural England made the following comments:

1.2.2 *"Policy CSW5 states that '…permitted subject to meeting the following criteria: 2. an air quality assessment I made of the impact of the proposed development and it associated traffic movements on the Medway Estuary and Marshes Special Protection Area and the Swale Special Protection Area sites and if necessary mitigation measures are required through planning condition and/or planning obligation' The appropriate assessment accompanying the Early Partial Review of the Kent Minerals and Waste Local Plan prepared by Ecus dated November 2018 does not consider the potential implications of this strategic site allocation for waste at the plan level. Section 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) states that: '63.—(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which— (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.' The appropriate assessment for this policy relies on the conclusion of the 2017 Habitats Regulations Assessment Screening Report prepared by Amey dated September 2017. Deferring the consideration of impacts to European designated sites for a strategic site when the plan has no alternative means of securing a site for the disposal of hazardous flue dust ash could result in the subsequent planning application at the project level being undeliverable. This could result in the Plan being unsound as it would not be deliverable if adverse effects on the integrity of European Sites could not be ruled out at the project level appropriate assessment. For traffic generated air quality impacts to European designated sites, the appropriate assessment should consider the potential increase in vehicle numbers in-combination with other plans or projects, not just alone as detailed within the appropriate assessment to understand whether the Plan will result in impacts. Such an approach is in accordance with the Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority [2017] EWHC 35 1 judgement which was issued in March 2017. Consequently, Natural England recommends that the appropriate assessment of the Plan should be updated to provide sufficient certainty at this stage that an adverse effect on the integrity of the European Sites will not result from this policy, without such an assessment the plan may be unsound. The advice Natural England provided from August to October 2018 on the scope of the appropriate assessment referred to in the report related solely to the M2 Lydd Quarry Extension site allocation which was being considered through the Plan process but has not been progressed, not the wider appropriate assessment".*

1.3 Response to Natural England comments

1.3.1 The HRA Screening Report (Amey, September 2017) assessed the likely significant effects on Natura 2000 sites as follows:

1.3.2 *"Potential air quality impacts as a result of Norwood Quarry, which is located within 200m of [Medway Estuary and Marshes SPA and Ramsar; and The Swale SPA and*

Ramsar] sensitive European sites. It will need to be determined whether this site is likely to result in an increase of more than 200 Heavy Duty Vehicles /day1 on any road that lies within 200m of a European site.' 'If any further information regarding the issues and the site can be obtained, this assessment can be refined to inform the final selection of sites for submission to the Secretary of State. If such information is not currently available then the recommendations for further study identified in the preceding sections should be used as specific guidance to the site promoters involved in each site."

1.3.3 Subsequently, the Appropriate Assessment (Ecus, 2018) concluded that:

1.3.4 "*The proposed changes as a result of the Early Partial Review of the KMWLP are relatively minor. The policy wording has been changed to identify the Norwood Quarry Extension as the only option, removing the suggestion that alternative sites would be considered. As this this does not result in any significant changes to the strategic site or to the plan and no new information is available on the site and likely vehicle movements to inform further assessment, the conclusions of the original HRA screening report (as above) remain valid".*

1.4 Changes in vehicle movements to and from Norwood Quarry Strategic Waste Site

1.4.1 Natural England requires that the likely significant effects on the Medway Estuary and Marshes SPA and Ramsar and Swale Estuary SPA of changes in air quality resulting from the amended Policy CSW5 providing for the continued use of Norwood Quarry for the disposal of flue ash waste, should be fully assessed and understood before the amended policy is adopted. In order to make this assessment, Natural England identifies the need to consider the potential increase in vehicle numbers in-combination with other plans or projects. A significant increase in vehicle movements to and from the site could potentially result in a significant increase in local nitrogen emissions to air and thereby, potentially result in potentially significant deposition of nitrogen into the Medway Estuary and Marshes SPA and Ramsar and Swale Estuary SPA that may have an adverse effect on the integrity of the SPA.

1.4.2 Land adjacent to the Norwood Quarry site has been used for the extraction of clay and the back filling with EfW flue ash since 2000. There is only one access route to the site and access on/off the Isle of Sheppey is via the A249 Sheppey Way. The proposed expansion of the Norwood Quarry site under CSW5 would be a continuation of the existing operation.

1.4.3 The existing operation is consented under planning permission granted on 17th May 2006 (application reference number SW/05/744). Condition 14 of that planning permission limits the number of heavy goods vehicle movements per day to 200 (100 in and 100 out) including both clay extraction and landfilling of waste.

1.4.4 Amended Policy CSW5 is based on the assumption that this operational limitation will continue up until the end of the plan period in 2030. It is important to note that this represents a worst case scenario with movements reducing to 24 heavy goods vehicles per day outside of the clay extraction work i.e. for waste importation alone. These vehicles are expected to be 25 tonne capacity tankers transporting the boiler ash and APCRs.

1.4.5 On this basis, the amended Policy CSW5 and the further extension to the capacity and duration of clay extraction and waste disposal at Norwood Quarry will not result in any net increase in heavy goods vehicle movements. Therefore, there should be no net increase in vehicle emissions and therefore there should be no change in the level of nitrogen emissions and deposition into the Medway Estuary and Marshes SPA and Ramsar and Swale Estuary SPA as a result of the Partial Review of the

Waste and Minerals Plan alone.

1.4.6 The Conservation of Habitats and Species Regulations, 2017 (the Habitats Regulations) further requires that the likely significant effects of the Plan on Natura 2000 sites is considered in combination with other plans and projects. Swale Borough Council has adopted its Local Plan 2017 (Bearing Fruits 2031 The Swale Borough Local Plan Adopted July 2017). The Habitats Regulations Assessment of the Local Plan (Bearing Fruits 2031: The Swale Borough Local Plan Part 1: Submission Version Habitats Regulations Assessment Screening Final April 2015) assessed the likely significant effects of the policies and allocations of that plan and concluded the following:

1.4.7 *"Air Quality For a distance of approximately 4km, the Swale SPA/Ramsar site lies within 200m of the A249 as it approaches and crosses onto the Isle of Sheppey. The MAGIC website www.magic.gov.uk indicates that the habitat within 200m of the road along this route is predominantly grazing marsh, along with areas of mudflat in the vicinity of the Swale Crossing itself. In addition, although Milton Creek is not actually part of the SPA, it does constitute important habitat for some SPA species and the Sittingbourne Northern Relief Road crosses the mudflats of the Creek. Development of 10,800 dwellings in Swale will result in an increase in traffic flows over the Swale Crossing. There will also be an increase in traffic flows due to development in surrounding local authorities (particularly Medway) over the same time period and (to a lesser extent) due to proposals for new minerals and waste facilities being developed for the Kent Minerals and Waste Plan. The Critical Load for grazing marsh and littoral sediment (the load above which adverse botanical effects may occur) is 20kg N/ha/yr. The UK Air Pollution Information System (www.apis.ac.uk) indicates that the modelled nitrogen deposition rate at representative points (TQ908689 and TQ922703 for the Swale Crossing and TQ920651 for the Sittingbourne Northern Relief Road) is 14.42 – 15.12kg N/ha.yr (i.e. 25% below the critical load)20. An increase of 5kgN/ha/yr would therefore be required in order for the Critical Load to be exceeded. This would be a very large additional nitrogen input, far beyond that attributable to traffic; the entirety of UK road traffic is responsible for 10% of nitrogen deposited at this location (1.7kgN/ha/yr) according to the Source Attribution data available at the UK Air Pollution Information System and this comes not purely from local traffic but also 'imported 20 Data re-checked and confirmed via the Site Relevant Critical Load tool of the UK Air Pollution Information System website (www.apis.ac.uk) on 30/03/15 emissions' from across the UK. Clearly there is no risk of such a large increase being associated with further increased traffic flows over the Swale Crossing or Sittingbourne Northern Relief Road even when traffic generated through The Swale Local Plan is considered in combination with that arising from other Local Plans in Kent or proposed future minerals or waste traffic associated with the Kent Minerals and Waste Plan21. Moreover, habitats closely linked to coastal and fluvial sources of water such as grazing marsh and littoral sediment are generally nitrogen rich and will receive far more nitrogen through inundation from marine and freshwater than through deposition from atmosphere, rendering atmospheric inputs much less relevant than for other situations22. In addition, the value of grazing marsh to SPA birds is dictated less by its detailed botanical composition (which is the aspect most likely to be affected by changes in atmospheric nitrogen deposition) than by its regular seasonal inundation and its overall habitat structure23. In addition, the Local Plan contains a number of measures to reduce reliance on the private car and therefore improve air quality. Policies include CP 2 (Promoting sustainable transport), which involves promoting sustainable transportation, improving public transport and access to modes of transport other than by car and ensuring development is well-located in relation to these alternative forms of transport and DM 6 (Managing Transport Demand and Impact) which provides further guidance as to the detailed*

design of developments to ensure walkable neighbourhoods and integrated access to public transport, as well as requiring larger developments to undertake transport assessments and prepare travel plans. On balance, it is therefore considered that there would be no Likely Significant Effect associated with air quality from the Local Plan with respect to the Swale SPA/Ramsar either alone or in combination with other projects and plans".

1.4.8 From this assessment it is of importance to note that:

- The HRA of the Swale Borough Council Local plan considered the in combination effects of that Plan with the Kent County Council Minerals and Waste Plan; and
- The HRA concluded that there was no likelihood of increased traffic resulting from both Plan's in combination, resulting in an exceedance of the critical load for nitrogen in the Medway Estuary and Marshes SPA and Ramsar and Swale Estuary SPA.
- Consequently, the likelihood of significant effects of nitrogen emissions and deposition from increased traffic flows resulting from the Swale Borough Local Plan in combination with the Kent Minerals and Waste Plan was screened out. Given that it has been established that the continuation of the operation of Norwood Quarry under the amended Policy CSW5 will not result in increased levels of heavy goods vehicle traffic, it can therefore be concluded that the policy is not likely to result in any likely significant effects on the Medway Estuary and Marshes SPA and Ramsar and Swale Estuary SPA as a result of nitrogen emissions and deposition, either alone or in combination with the approved Swale Borough Council Local Plan.

2. Kent Minerals Site Plan - Regulation 19 Submission

2.1 Background

2.1.1 The Mineral Sites Plan is required to allocate specific sites within Kent for mineral extraction to ensure that Kent has enough permitted mineral reserves over the plan period (until 2030). Policy CSM 2 of the adopted Kent Minerals and Waste Local Plan 2013-30, in compliance with national policy, commits the County Council to make the provision of at least a 7-year landbank for sharp sand and gravel and soft sand based on the current agreed local annual supply requirement for Kent. In the case of sharp sand and gravel, policy CSM2 recognises that the landbank shall be maintained whilst resources allow.

2.1.2 A 'Call for Sites' exercise was undertaken in late 2016 and early 2017, where landowners and mineral operators with interests in Kent were invited to promote sites for allocation.

2.1.3 In late 2017, a public consultation was undertaken on 9 sites which were considered potential options for allocation within the Mineral Sites Plan. Following this consultation, detailed technical assessment work was carried out on these sites to further assess their suitability for allocation.

2.1.4 As a result, three sites have been proposed to meet the likely demand for sharp sand and gravel and soft sand up until 2030. These are:

- Extensions to Stonecastle Farm Hadlow (M13) – an extension to the existing quarry (total yield of 1,000,000 tonnes);
- Moat Farm Five Oak Green (M10) - a proposed new quarry (total yield of 1,500,000 tonnes); and
- Chapel Farm (West), Lenham (M3(3)) - a proposed new quarry (total yield 3,200,000 tonnes).

2.2 Estimated supply and demand for minerals

2.2.1 It is important to note that since the adoption of the current Waste and Minerals Plan in 2016, the assessment of available mineral reserves has increased and the estimated demand for minerals (based on actual annual average sales since 2016) has reduced. Even allowing for the shorter duration of the proposed Kent Minerals Plan (18 years from 2019 to 2031 plus an additional 7 year landbank requirement = 18years) in relation to the adopted Kent Minerals and Waste Local Plan (24 years including landbank requirement) this has a net effect of significantly reducing the requirement for land won minerals over the lifetime of the Kent Minerals Site Plan. The differences in estimated supply and demand between the two plans and pan periods is summarised in Table 1.

Table 1: Summary of differences in estimated supply and demand between plans

Plan	Assessed Demand	Assessed Supply	Assessed Shortfall
Sharp Sand and Gravel - Kent Minerals and Waste Local Plan, 2013-2030	13.26mt over 24 years = 0.55mt/annum	10.08mt	3.18mt
Sharp Sand and Gravel - Kent Minerals Plan, 2019-2030	8.50mt over 18 years = 0.47mt/annum	5.25mt	3.25mt
Soft Sand - Kent Minerals and Waste Local Plan, 2013-2030	15.60mt over 24 years = 0.65mt/annum	10.64mt	4.96mt
Soft Sand - Kent Minerals Plan, 2019-2030	10.22mt over 18 years = 0.57mt/annum	7.714mt	2.51mt

2.2.2 The net effect is an average annual reduction of 0.08mt (80,000 tonnes or14.55%) in forecast demand for sharp sand and gravel from land won resources and a similar 0.08mt (80,000 tonnes or 12.31%) average annual reduction in forecast demand for soft sand over the lifetime of the Kent Mineral Sites Plan compared to the adopted Kent Minerals and Waste Local Plan. This reduction in projected land won demand and therefore supply, is an important context to the following consideration of the potential effects of lorry movements associated with sand and gravel extraction on air quality and hence on potential nitrogen deposition within Natura 2000 sites.

2.2.3 Research undertaken by Cranfield University for the Aggregates Strategic Research Programme found that 68% of the aggregates transported by road, by the quarries surveyed, are transported by rigid tipper trucks with capacities of 7 to 20 tonnes, depending on capacity these vehicles are usually 4x2, 6x4 or 8x4 configuration. The remaining 32% of material is transported using articulated trucks with capacities of 20 to 30 tonnes. (Aggregates Strategic Research Programme Environmental impact of aggregate transport by construction trucks Project 6 – Assess the design of lorries and quarries for aggregates transport MA/1/S/6/01 Dr James Brighton and Dr Terence Richards, 2010). The average load is therefore approximately 17.33tonnes.

2.2.4 On this basis a combined reduction of 160,000 tonnes per annum of land won production (80,000 tonnes of sharp sand and gravel and 80,000 tonnes of soft sand) is likely to result in 9,232 fewer lorry loads to be transported out from Kent mineral sites and therefore 9,232 fewer lorry movements into the mineral sites for collection. Therefore, the revised projected minerals demand within the Kent Mineral Sites Plan could result in up to a combined 18,465 fewer lorry movements each year throughout the plan period. Overall this therefore represents a potentially significant reduction in nitrogen emissions and deposition within the County.

2.3 Natural England comments

2.3.1 In commenting on the proposed three mineral sites, Natural England made the following comments:

2.3.2 "*The appropriate assessment for the Kent Mineral Sites Plan does not appear to consider the potential for traffic generated air-quality impacts to European designated sites to result from the Minerals Sites when considered in-combination with other plans or projects. Section 63 of the Conservation of Habitats and Species*

Regulations 2017 (as amended) states that: '63.—(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which— (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.' For traffic generated air quality impacts to European designated sites, the appropriate assessment should consider the potential increase in vehicle numbers in-combination with other plans or projects, not just alone to understand whether the Plan will result in impacts. Such an approach is in accordance with the Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority [2017] EWHC 35 1 judgement which was issued in March 2017. Consequently, Natural England recommends that the appropriate assessment of the Mineral Sites Plan should be updated to provide sufficient certainty at this stage that an adverse effect on the integrity of the European Sites will not result from this policy, without such an assessment the plan may be unsound".

2.4 Response to Natural England comments

2.4.1 The HRA Screening Report (Amey, September 2017) screened out any likely significant effects on Natura 2000 sites from the three sites being proposed to provide the land won minerals needed to meet revised projections of supply and demand for minerals, namely, extensions to Stonecastle Farm Hadlow (M13); Moat Farm Five Oak Green (M10); and Chapel Farm (West), Lenham (M3). However Natural England could see no evidence that the screening assessment specifically considered the effects of extraction associated vehicle movements and the potential for increased nitrogen emissions and deposition to Natura 2000 sites as a consequence.

2.5 Chapel Farm, Lenham (Western Site) (M3)

2.5.1 The duration of extraction of soft sand is estimated to be 21 years, at a rate of 150,000tpa. It should be noted that there is another operational quarry in the same area at Burleigh Farm, Charing, Ashford, TN27 0AN. Extraction is not anticipated to commence at the proposed Chapel Farm site until works have been completed at this existing Burleigh Farm quarry. Therefore, the Chapel Farm site is effectively planned as a replacement for the Burleigh Farm site when it is worked out and the two sites should not therefore be operating at the same time. Nor therefore should there be any cumulative environmental impacts from the two sites.

2.5.2 Planning permission for sand extraction at the Burleigh Farm site was granted by Kent County Council on 4th May 2016 for sand extraction at Burleigh Farm/Charing Quarry, Hook Lane, Charing, Ashford, TN27 0AN (Reference Application: AS/15/206). Condition 19 of that planning permission states that "*19. No more than 110 HGVs (55 in and 55 out) associated with the transportation of sand shall enter or leave the Charing Quarry site access on Hook Lane in any one day*". It is estimated that there will be a similar number of HGV movements associated with the operation of the proposed Chapel Farm, and that the vehicles will operate along a similar route west along the A20, to meet the strategic route network at Junction 8 of the M20.

2.5.3 The Natura 2000 protected sites that are closest to Chapel Farm are the following:

- North Downs Woodlands (SAC) Approximately 13km distance;
- Queendown Warren (SAC) Approximately 14km distance;
- Wye & Crundale Downs (SAC) Approximately 18km distance; and

- Peters Pit (SAC) Approximately 22km.

2.5.4 It is therefore unlikely that given these separation distances, that the operation of the proposed quarry at Chapel Farm will have any significant impact on air quality or through nitrogen deposition within any of these Natura 2000 sites. Furthermore, as the route for the transport of the extracted sand is likely to be along the A20 and onto the M20 nearby, these routes do not pass through any of the above Natura 2000 sites. The M20 northwards passes within 1km of the North Downs Woodlands SAC and 4km of Peter's Pit SAC and southwards within 4.5km of the Wye & Crundale Downs SAC.

2.5.5 In conclusion, the proposed Chapel Farm quarry is not likely alone to have any significant effects on any Natura 2000 sites by virtue of nitrogen emissions and deposition resulting from its operation, for the following reasons:

- As Chapel Farm is proposed to replace the nearby Burleigh Farm quarry and is not anticipated to come into operation until Burleigh Farm is worked out, its operation will not result in any additional nitrogen emissions and deposition to those that are already consented within this area of Kent;
- And because it is anticipated that the HGV movements each day to and from the proposed Chapel Farm quarry would be equivalent to those currently consented at nearby Burleigh Farm there is not likely to be any significant change in the currently consented scale of traffic and therefore nitrogen emissions and deposition to those that are already consented within this area of Kent;
- The proposed Chapel Farm quarry is a significant distance from the nearest Natura 2000 site and the immediate operation is not therefore likely to have any effects on any Natura 2000 site. Furthermore, the likely route for transportation of sand means that the closest that HGV's from the Chapel Farm quarry are likely to get to a Natura 2000 site, is within 1km of the North Downs Woodlands SAC. At this distance, there is not likely to be any significant effect on nitrogen deposition.

Assessment of in-combination effects

2.5.6 The Habitats Regulations further requires that the likely significant effects of the Plan on Natura 2000 sites is considered in combination with other plans and projects. The proposed Chapel Farm site lies within the boundaries of Maidstone Borough Council. Maidstone Borough Council has adopted its Local Plan in 2017 (Maidstone Borough Local Plan Adopted 25 October 2017). The Habitats Regulations Assessment of the Local Plan (Habitats Regulations Assessment for: Maidstone Borough Local Plan - Publication (Regulation 19) February 2016) assessed the likely significant effects of the policies and allocations of that plan. It screened out any likely significant effects from air pollution on all the Natura 2000 sites considered with the exception of Northdown Woodlands SAC and concluded the following in respect of the likely significant effects of air pollution on this SAC:

2.5.7 "*As discussed earlier in this document, although APIS provides a critical load range for coniferous woodland of 5-15 kgN ha-1 yr-1 in the Site Relevant Critical Load tab for North Downs Woodlands SAC, the range for coniferous woodland is derived from research into pine and spruce forests. In addition, a site visit has confirmed that the small section of woodland within 200m of the A229 is predominantly broadleaved. The 10- 15 kgN ha-1 yr-1 range is therefore considered most appropriate.*

2.5.8 *The air quality impact study …indicates that the traffic flows expected on the A229 and A249 within 200m of the North Downs Woodlands SAC by 2031 will result in changes in NOx concentration and nitrogen deposition rate within the woodland. As*

detailed above, this change would not result in a likely significant effect on the SAC, either alone or in combination with other projects and plans. The air quality assessment methodology and findings detailed above have been subject to consultation with Natural England who agree with the findings.

2.5.9 *Whilst there is some uncertainty about the degree to which background pollutant concentrations are decreasing, one would in reality expect to see some improvement by 2031. It would only require a slight improvement in background air quality for the change in NOx concentrations along the A229 to fall below the '1% of the critical level' threshold and thus become entirely inconsequential. This analysis is also precautionary because it examines the total change in NOx concentrations by 2031, rather than those purely associated with the Local Plan. Bearing this in mind, it can be concluded with confidence that the change in NOx concentrations due to Local Plan growth by 2031 is very likely to be inconsequential (i.e. equivalent to less than 1% of the critical level) and thus will not result in a likely significant effect on the SAC alone or in combination with other plans and projects*".

2.5.10 Therefore, the HRA screened out any likely significant effects of the Local Plan from air pollution on Natura 2000 sites, both alone and in combination with other plans and projects. The other plans considered within the in-combination effects assessment are set out in paragraph 2.4.2 and included:

- Kent Local Transport Plan (LTP 3) 2011 to 2016; and
- Kent Minerals and Waste Local Plan 2013 to 2030.

2.5.11 Consequently, the likelihood of significant effects of nitrogen emissions and deposition from increased traffic flows resulting from the Maidstone Borough Local Plan in combination with the Kent Minerals and Waste Plan was screened out. Given that it is anticipated that the proposed Chapel Farm quarry will effectively provide replacement mineral capacity for the Burleigh Farm quarry once it comes to the end of its commercial life and will not therefore result in significantly increased levels of heavy goods vehicle traffic in that part of Kent, it can be concluded that the proposed allocation of Chapel Farm for mineral extraction is not likely to result in any likely significant effects on any Natura 2000 sites as a result of nitrogen emissions and deposition, either alone or in combination with the approved Maidstone Borough Council Local Plan.

2.6 Extension to Stonecastle Farm, Hadlow (M13) and Moat Farm, Five Oak Green (M10)

- Extensions to Stonecastle Farm Hadlow (M13) – an extension to the existing quarry (total yield of 1,000,000 tonnes);
- Moat Farm Five Oak Green (M10) - a proposed new quarry (total yield of 1,500,000 tonnes); and

2.6.1 For the purposes of this assessment of likely significant effects under the Habitats Regulations, these two sites are considered together as given their proximity and shared access (to and from the A228) they can be considered in some respects as one site. Their details of the two proposed sites are set out below.

2.6.2 It is important to note that the extraction of sand and gravel is currently taking place at Stonecastle Farm under a planning permission granted on 23rd September 2002 (Reference of Application: TM/00/1599 (in part)). The proposed extension to Stonecastle Farm quarry and the proposed new quarry at Moat Farm are intended to sequentially replace the currently approved Stonecastle Farm quarry when it reaches the end of its commercial life. Accordingly, the Kent Mineral Sites Plan sets out the following key constraints on the operation of the two proposed quarry sites:

2.6.3 "*The site shall only be worked sequentially to the permitted phases at Stonecastle Farm Quarry or the Moat Farm Quarry/Stonecastle Farm Extension (should planning permission be granted for this latter site). To avoid unacceptable impacts on the local highway network, the Stonecastle Farm Extension (M13), the Moat Farm Site (M10) and the permitted Stonecastle Farm Quarry shall not be worked concurrently*".

2.6.4 Therefore the Mineral Sites Plan makes clear that the three sites, or any two of the three sites, are not to be worked simultaneously. This is significant, since it limits the number of lorry movements to and from the Stonecastle Farm/Moat Farm area from the A228. Furthermore, as the three sites will not operate at the same time, there will be no in combination effect from their operation. Therefore, for the purposes of Habitat Regulations Assessment, it is only necessary to assess the effects of each of the two proposed new quarry sites alone and in combination with other non-minerals and waste related plans and projects.

2.6.5 The existing planning permission for Stonecastle Farm quarry does not appear to restrict by condition the number of vehicle movements into and out of the site. The site capacity has been extended on several occasions and has continued to operate at a similar level of production meaning therefore a similar level of vehicle movement's year on year. These are in the range of 44-88 HGV movements per day.

2.6.6 By comparison, the following baseline parameters have been assessed for the two proposed quarry sites:

2.7 M10 Moat Farm, Five Oak Green

2.7.1 Likely HGV vehicle movements per day have been assessed given the estimated resource of 1.5 million tonnes extracted over 15 years giving an estimated extraction rate of 100,000 tonnes per annum, giving 38 HGV movements per working day for extraction of the deposit, assuming a 260 working day year and 20 tonnes pay load HGV vehicles being employed.

2.7.2 Routes taken to access the site: the site would use the adjoining established Stonecastle Farm Quarry processing site and access to the Whetsted Road/Maidstone Road A228 highway.

2.8 M13: Stonecastle Farm Quarry Extensions, Hadlow/Whested

2.8.1 Likely HGV vehicle movements per day as given by the site promoter are based on the estimated resource of 1.0 million tonnes extracted over 7 years giving an estimated extraction rate of 142,860 tonnes per annum, giving 55 HGV movements and 10 car/light van vehicles per working day, assuming a 260 working day year and 20 tonnes pay load HGV vehicles being employed.

2.8.2 Routes taken to access the site: the site, as an extension, would use of the established Stonecastle Farm Quarry site access to the Whetsted Road/Maidstone Road A228 highway.

2.8.3 The following Natura 2000 sites are the closest to the proposed quarry sites:

- North Downs Woodlands (SAC): Approximately 16 km away;
- Peters Pit (SAC): Approximately 17km away; and
- Ashdown Forest (SAC and SPA): Approximately 19km away.

2.8.4 It is therefore unlikely that given these separation distances, that the operation of the proposed quarry sites at Stonecastle Farm extension or Moat Farm will have any significant impact on air quality and nitrogen deposition within any of these Natura 2000 sites. Loaded HGV vehicles leaving the site must only turn left onto the A228 when exiting the proposed sites, as per the current traffic management measures for

Stonecastle Farm quarry. This will take vehicles initially away from the Ashdown Forest SAC and SPA 19km to the south. However vehicle movements from the A228 will be dependent upon the final destination of the delivery and this will vary dependent upon the source of demand. Vehicles heading north on the A228 can access the M20 motorway at Junction 4 within 3.7km of Peter's Pit SAC and 6km of North Downs Woodland SAC.

2.8.5 In conclusion, the proposed Stonecastle Farm quarry extension or the Moat Farm quarry are not likely alone, or in combination with each other, to have any significant effects on any Natura 2000 sites by virtue of nitrogen emissions and deposition resulting from their operation, for the following reasons:

- The assessed number of vehicle movements per day for the two proposed quarry sites is within the range of the current consented quarry at Stonecastle Farm and there will therefore be no significant change in HGV vehicle movements; and
- As the proposed sites will come into operation sequentially, and only one quarry site will be operational at any one time, it can be concluded that there will be no significant change in the number of HGV movements per working day during the plan period and therefore no net increase in HGV vehicle movements.

2.8.6 Therefore, there will be no significant change in nitrogen emissions from vehicles and therefore it is safe to conclude that neither of these proposed quarry sites in the Kent Mineral Sites Plan (Stonecastle Farm extension and Moat Farm) are alone and together likely to result in significant effects as a result of nitrogen emissions and deposition to Natura 2000 sites.

Assessment of In Combination Effects

2.8.7 The Habitats Regulations further requires that the likely significant effects of the Kent Mineral Sites Plan on Natura 2000 sites is considered in combination with other plans and projects. While the proposed Stonecastle Farm extension and Moat Farm are approximately 700metres apart the proposed Stonecastle Farm extension lies within the boundary of Tonbridge and Malling Borough Council while Moat Farm lies within the boundary of Royal Tunbridge Wells Borough Council.

2.8.8 Tonbridge and Malling Borough Council has prepared a new borough-wide Local Plan focussed on the period up to 2031.This new Local Plan has been consulted upon and now is at the examination stage. This new Plan, once adopted, will form part of the Council's Development Plan and will replace the current suite of adopted local plans. The new Plan will have a time horizon up to 2031.

2.8.9 As part of the preparation of the new Local Plan the Borough Council has undertaken a Habitats Regulations Assessment, part of which deals specifically with the potential effects of changes in air quality resulting from proposed development in the Local Plan on Natura 2000 sites (Tonbridge and Malling Borough Council Local Plan Habitat Regulations Assessment: Stage 1 (Air Quality Screening) July 2018).

2.8.10 The assessment used traffic modelling to predict increases in traffic flows under a Local Plan 'with development' scenario. Growth scenarios in neighbouring districts, for example committed development and neighbouring authorities' local plans, have been accounted for in the traffic data used within this assessment by using information from the Department for Transport (DfT) TEMPro database, which takes into account planned (i.e. draft) and adopted strategic development plans across districts to estimate projected numbers of jobs and households in future years. The traffic growth factors calculated in TEMPro therefore account for the cumulative impacts of growth both within TMBC and within neighbouring districts.

2.8.11 The assessment also involved dispersion modelling of traffic impacts associated with the proposed TMBC Local Plan, in combination with other development in neighbouring authorities, at two special areas of conservation (SACs) within Tonbridge and Malling:

- Peter's Pit SAC, designated for Triturus cristatus (Great crested newt); and
- North Downs Woodland SAC, designated for yew-dominated woodland, beech forests on neutral to rich soils, and dry grasslands and scrublands on chalk or limestone.

2.8.12 Likely significant effects on both SAC's were screened out. In the case of Peter's Pit this was because the assessed increase in nitrogen emissions and deposition was predicted not to exceed critical levels or critical loads for the designated habitat feature. For North Downs Woodland, whilst the assessment predicted an exceedance of both critical level and critical load by the end of the Local Plan period in 2031, because both critical level and critical load are already currently exceeded and the habitat is showing no signs of being unfavourable, the effects were not considered to be significant.

2.8.13 Likely significant effects on three further Natura 2000 sites were screened out as a result of modelling 'with development' traffic flows in this way. These were:

- Queensdown Warren SAC: no traffic increases predicted on roads within 200m of the site (beyond which air quality effects of roads are generally not detectable above background concentrations);
- Medway Estuary special protection area (SPA) and Ramsar site: increase of 85 annual average daily traffic (AADT) flows predicted; and
- Ashdown Forest SAC: increase of three AADT predicted.

2.8.14 Tonbridge and Malling Borough Council has therefore assessed that there will be no likely significant effects on Natura 2000 sites as a result of changes in air quality resulting from increased traffic flows associated with its Local Plan and neighbouring plans, including the Kent Minerals and Waste Plan.

2.8.15 Royal Tunbridge Wells Borough Council Local Plan is currently at the Issues and Options stage and the potential growth and development options have been subject to an interim Habitats Regulations Assessment (Analysis of the Implications of Tunbridge Wells Borough Local Plan: Issues and Options for European Sites Tunbridge Wells Borough Council March 03, 2017). The assessment focussed on likely significant effects from growth options on the Ashdown Forest SAC, but was not able to reach any conclusions, pending clarification of the preferred growth options.

The likelihood of significant effects of nitrogen emissions and deposition from increased traffic flows resulting from the Tonbridge and Malling Borough Local Plan in combination with other neighbouring plans and including the Kent Minerals and Waste Plan was screened out. Given that it is anticipated that the proposed Stonecastle Farm quarry extension and the proposed Moat Farm quarry will effectively provide consecutive replacement mineral capacity for the Stonecastle Farm quarry once it comes to the end of its commercial life and will not operate simultaneously, therefore will not result in significantly increased levels of heavy goods vehicle traffic in that part of Kent, it can be concluded that the proposed allocation of Stonecastle Farm extension and Moat Farm for mineral extraction is not likely to result in any likely significant effects on any Natura 2000 sites as a result of nitrogen emissions and deposition, either alone or in combination with the approved emerging Tonbridge and Malling Borough Council Local Plan.