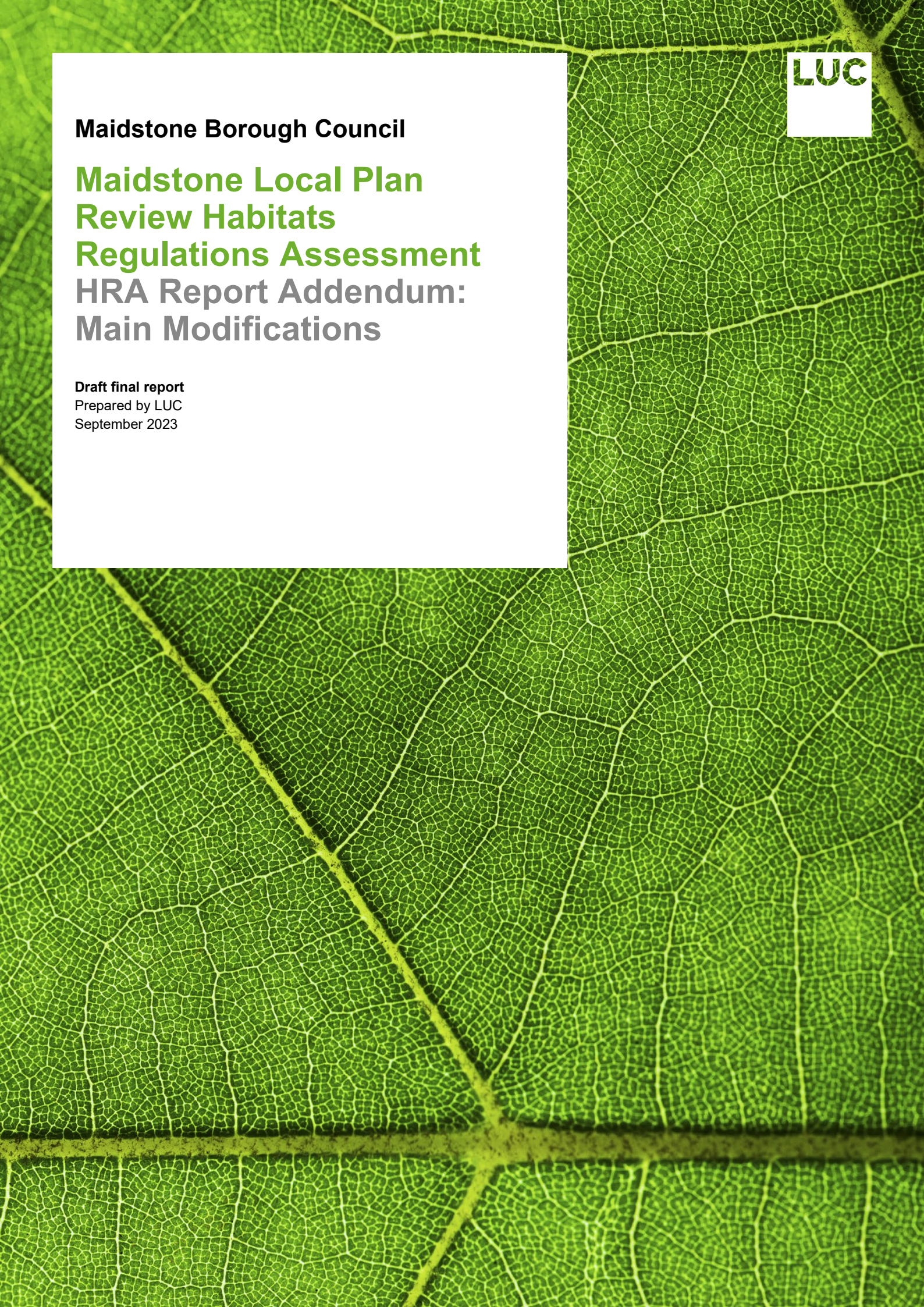

Maidstone Borough Council

Maidstone Local Plan Review Habitats Regulations Assessment

HRA Report Addendum: Main Modifications

Draft final report
Prepared by LUC
September 2023

Maidstone Borough Council

Maidstone Local Plan Review Habitats Regulations Assessment

HRA Report Addendum: Main Modifications

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Contents

Chapter 1
Introduction

1.1 This report presents an assessment of the implications of Maidstone Local Plan Review's Main Modifications on the previous findings of the Habitats Regulations Assessment (HRA); along with the outputs of technical work undertaken since the Local Plan Review Regulation 19 (Reg.19) consultation.

1.2 This addendum to the Reg.19 HRA report[1] supersedes a previous addendum[2], which presented the emerging outputs of technical studies and the HRA implications during the Local Plan Review Examination hearings. The outputs of that technical work are therefore re-presented here and updated where necessary (**Chapters 2 & 3**; and **Appendices A-C**), taking into account the related Main Modifications (**Chapter 4** and **Appendix C**).

1.3 The addendum will be consulted on, along with the proposed amendments to the Local Plan Review, as part of the Main Modifications consultation.

Previous HRA work

Reg.19 HRA

1.4 LUC was commissioned by MBC to carry out an HRA of its Local Plan Review. The HRA of the Local Plan Review (Reg.19) was completed in September 2021 and published for consultation alongside the Local Plan Review. Natural England, as a statutory consultee, provided comments on the Local Plan Review and the HRA. It advised that additional information would be needed to provide the required level of certainty (i.e. beyond reasonable scientific doubt) to justify the Appropriate Assessment's conclusion that there would be no adverse effects on the integrity of:

- North Downs Woodlands Special Area of Conservation (SAC), due to air pollution from vehicles; and
- Stodmarsh SAC, Special Protection Area (SPA) and Ramsar site, due to a decrease in water quality from nutrient enrichment.

[1] LUC (2021) Maidstone Local Plan Review Reg.19 HRA Report, September 2021; https://localplan.maidstone.gov.uk/home/local-plan-review

[2] LUC (2023) Maidstone Local Plan Review HRA Report Addendum for Examination, June 2023; https://localplan.maidstone.gov.uk/home/local-plan-review-examination

HRA work undertaken in preparation for Local Plan Examination

1.5 An HRA addendum was produced in March 2022 and updated in July 2022. The addendum presented and assessed the implications of the technical work undertaken in respect of air pollution and water quality since the Regulation 19 consultation and ahead of the Local Plan Examination Stage 1 Hearings in November 2022. This addendum supersedes the previous addendum.

1.6 The technical work concluded that impacts relating to nutrient neutrality at Heathlands Garden Settlement and Lenham were unlikely to result in adverse effects on the integrity of Stodmarsh SAC, SPA & Ramsar site; providing that "consultation with the Environment Agency, Kent County Council, Natural England and River Stour Internal Drainage Board is concluded prior to the adoption of the Local Plan in order to provide certainty that the proposed onsite wetlands are deliverable."

1.7 In relation to air pollution, it stated that "further work is required to test the identified suite of mitigation measures and update the traffic modelling and air quality assessment. The intention of the Council is to agree the mitigation strategy with Natural England before the Local Plan Review is adopted."

1.8 During the Examination period, further work was undertaken to resolve the outstanding issues, as summarised below and set out in a Statement of Common Ground (SOCG) with Natural England (March 2023; provided in **Appendix A**). The SOCG is currently being updated to reflect work done since March 2023, with respect to air quality.

Water quality and nutrient neutrality

1.9 Arcadis produced two technical notes, which were appended to the July 2022 HRA addendum and are now published as Local Plan Examination Documents[3]:

- July 2022: Heathlands Garden Community and Lenham Broad – nutrient neutrality assessment and mitigation proposals, Examination Document ED36; and
- November 2022: Consideration of additional options for achieving nutrient neutrality in Heathlands Garden Community, November 2022, Examination Document ED80.

1.10 In response to the July 2022 technical note, Natural England confirmed (July 2022; see **Appendix A**) that further work would be required to demonstrate that abstraction from the River Stour would be feasible and deliverable.

1.11 The November 2022 technical note then explored several options that would remove the need to divert flows from the River Stour, such as piping water beneath the M20 between the proposed wetlands (from 'wetlands 1 and 2' to 'wetlands 3 and 4') so that water from the Stour is not required to maintain water within wetlands 3 and 4. The options explored were outlined at the Stage 1 Examination Hearings. All four of the options were found to be technically feasible, and no further work was required for the Stage 2 Hearings.

1.12 The implications of this work are assessed in **Chapter 2**.

Air pollution

1.13 Since the July 2022 HRA addendum was produced, further transport and air quality assessment work has been undertaken. At the Stage 1 Hearings, there remained uncertainty as to whether there would be adverse effects on the North Downs Woodlands SAC. For the Stage 2 Hearings, further work was undertaken to update the assumptions underlying the transport model (as set out in **Appendix B** and described further in **Chapter 3**).

1.14 The outputs of this showed that there was still an exceedance of the air pollution screening threshold used to identify likely significant effects, in one of the modelled scenarios. The potential for adverse effects on the integrity of North Downs Woodlands SAC could therefore not be ruled out.

1.15 Ecological work was commissioned to consider the effects of this exceedance in the affected areas of the SAC; however, seasonal constraints meant that the outputs of this were not available during the Hearings. Therefore, potential mitigation options were explored so that, if the ecological work identifies the potential for adverse effects on integrity, there would be interventions that could be put in place to avoid them.

1.16 MBC committed (in the SOCG; **Appendix A**) to agreeing the principles of mitigation before the end of the Examination Hearings.

HRA work undertaken since Examination

1.17 No further technical work was required in relation to nutrient neutrality.

1.18 In relation to air pollution, an ecological survey was carried out by Southern Ecological Solutions in July 2023 (**Appendix B**) of the areas of North Downs Woodlands SAC in which exceedances of the air quality screening threshold were predicted to occur. This work confirmed that the SAC's

[3] Local Plan Examination documents, https://localplan.maidstone.gov.uk/home/local-plan-review-examination

qualifying woodland habitats are present within the air pollution impact zone, and therefore adverse effects on integrity cannot be ruled out on the basis of local ecological characteristics.

1.19 Jacobs subsequently modelled the mitigation measure considered most likely to reduce traffic on roads within 200m of Boxley Road, to demonstrate that there is at least one effective mitigation measure that can be implemented to avoid adverse effects on the integrity of the North Downs Woodlands SAC. The mitigation tested is the use of traffic calming measures along Boxley Road / Lidsing Road to restrict traffic and discourage its use; and the connection of Lidsing Garden Settlement to the M2 J4 via the new link road, reducing traffic from the Garden Settlement past North Downs Woodlands SAC (see **Appendix B**). Testing of this mitigation option has shown that this would reduce traffic to the extent that there is no exceedance of the 1% critical load screening threshold

1.20 A technical note prepared by Jacobs setting out the latest findings (September 2023) of the transport and air quality assessment is in **Appendix B**.

1.21 The implications of this work are assessed in **Chapter 3**.

Modifications to the Local Plan Review

1.22 The Main Modifications proposed by Maidstone Borough Council incorporate changes required following the Stage 1 and Stage 2 Examination hearings, and recommendations from the Planning Inspectorate.

1.23 LUC has reviewed all of the proposed modifications and has found that the majority of the proposed Main Modifications and all of the Minor Modifications will not affect the HRA assessment or findings (as set out in the Reg.19 HRA); for example because the changes are minor or because they update a policy that does not result in development or mitigation.

1.24 The modifications that require further consideration as they could affect the HRA findings are those that:

- Alter the overall quantum of development, or significantly alter the quantum of development in individual locations; or
- Introduce a new policy; or
- Update HRA mitigation embedded within the policies.

1.25 Modifications falling into these categories are reproduced in **Appendix C** and their implications for the HRA findings are assessed in **Chapter 4**.

Chapter 2
Water quality at Stodmarsh SAC and SPA/Ramsar

Background to technical work

2.1 The findings of the Local Plan Review HRA at Reg. 19 stage in relation to water quality and quantity were:

> The Appropriate Assessment concluded no adverse effect on integrity as a result of increased pressure on water abstraction and treatment in relation to all European sites, provided that the following safeguards and mitigation measures are required by the plan and successfully implemented:
>
> - Policy SP14a: "developers to ensure that new developments incorporate measures where appropriate to [within a list of criteria i to viii]:
>
> (iv) Control pollution to protect ground and surface waters where necessary and mitigate against the deterioration of water bodies and adverse impacts on Groundwater Source Protection Zones, and/or incorporate measures to improve the ecological status of water bodies as appropriate; Major developments will not be permitted unless they can demonstrate that new or existing water supply, sewage and wastewater treatment facilities can accommodate the new development. Wastewater treatment and supply infrastructure must be fit for purpose and meet all requirements of both the permitting regulations and the Habitats Regulations (for example in relation to nutrient neutrality at Stodmarsh)."
>
> - New wastewater treatment works are planned at Heathlands Garden Settlement, to serve the garden community and other new development in Lenham (broad location), with constructed wetlands to provide additional treatment, including of surface water; as set out in Appendix E.
>
> Provided that Natural England is supportive of the policy requirements and mitigation measures developed and agreed in relation to nutrient neutrality at sites affecting Stodmarsh SAC and SPA/Ramsar before the Local Plan is adopted, then it can be concluded that there will not be an AEOI from the LPR. This could be verified during the Examination process and confirmed in an HRA Addendum and/or Adoption Statement.

2.2 Appendix E of the Reg. 19 HRA Report is a Nutrient Neutrality Assessment for Heathlands Garden Community, prepared by Ramboll in September 2021[4].

2.3 Natural England confirmed that further information would be required before they could support the conclusions of no adverse effects on integrity at Stodmarsh SAC and SPA/Ramsar.

Development of mitigation

Technical options

2.4 In response to Natural England's comments, Arcadis (March 2022) prepared a technical note setting out nutrient budget calculations and associated mitigation proposals. This was then updated in July 2022 (ED36), to reflect a revised nutrient calculation methodology published by Natural England in March 2022.

2.5 Natural England provided a response to the technical notes on water quality and nutrient neutrality (July 2022; ED35), which confirmed that:

> "1. The water supply for wetlands still needs to be discussed and confirmed, as some existing watercourses will need to be diverted. It will be important for confidence to be provided that this is both feasible and deliverable along with any required consents or permits.
>
> 2.The proposal has mentioned the requirement for water abstraction from the River Great Stour to supply a number of the wetlands. Natural England note that water is a limited resource within the Stour catchment and would recommend that greater clarity is provided in relation to the likelihood of an abstraction licence being granted. Given that there appears to be a level of uncertainty on whether the abstraction licence will be obtained, it may be appropriate to provide clarity on whether there are alternative options to supply the mitigation wetlands with water. For example, what size of mitigation wetland could be achieved from surface water runoff and discharges from the Lenham WwTW [wastewater treatment works] and the new onsite WwTW?"

2.6 Arcadis then undertook further work (November 2022; ED80) to identify alternatives to diverting water from the Stour, to demonstrate that these would be feasible and to therefore ensure that nutrient neutrality would be deliverable if abstraction is not possible.

2.7 This work explored four options and concluded that all are technically feasible:

- Option 1: Construct a pipeline under HS1 and the M20 to allow a direct discharge to Wetlands 3 and 4.
- Option 2: Expand the size of Wetland 1 or find space for additional treatment wetlands within the western catchment.
- Option 3: Design Wetland 1 as an enhanced wetland to improve on the assumed Total Phosphorus median removal rate of 1.2 g/m2/year.
- Option 4: Improve the quality of the discharge from Lenham WwTW.

2.8 The Statement of Common Ground (March 2023), which sets out agreements between MBC and Natural England (**Appendix A**) states:

> "At this stage in plan making there presents several options for linking the proposed new WWTW to the wetlands, so whilst further discussions are taking place with the Environment Agency, there remains alternative approaches that could be taken in this respect such as a direct connection between the WwTW and the wetlands. Natural England has reviewed this additional information and has made further comments in relation to additional updates to guidance and methodologies that have arisen since March 2022.
>
> It has been agreed that development at Heathlands and the Lenham Broad location can be delivered whilst achieving nutrient neutrality in the river Stour. This has been demonstrated by the scheme and proposed mitigations compliance with the November 2020 and March 2022 methodologies. Since then, MBC has continued to work with Natural England to demonstrate that abstraction from the river Stour can be avoided."

2.9 Arcadis is the hydrological expert and LUC, as HRA expert, has relied on the findings set out in its technical notes. On the basis of the revised calculations and mitigation proposed, Arcadis states that it is possible to demonstrate that nutrient neutrality can be achieved at the proposed Heathlands Garden Community and Lenham Broad Location site allocations.

[4] Ramboll (2021) Heathlands Garden Community Nutrient Neutrality Assessment, September 2021, Local Plan Evidence base document LPR 1.93: https://localplan.maidstone.gov.uk/home/local-plan-review-examination/local-plan-review-evidence-page

2.10 The technical notes produced by Arcadis in July 2022 has been published as part of the Local Plan Examination[5] (document ED36), along with their November 2022 Memo (document ED80), which sets out options for achieving nutrient neutrality without diverting water from the River Stour.

2.11 There is currently no preferred option, although the Heathlands viability appraisal has been based on the more costly Option 1. The November 2022 Memo states that "the preferred option (which may potentially comprise a combination of the above options) can be chosen post Local Plan adoption period following detailed analysis". As set out in the March 2023 SOCG:

> "As the scheme progresses through SPD and planning application stages the Council is keen to work with NE to deliver the most appropriate solution in line with regulations at that time. The promoter will be incentivised to look at new solutions with NE post adoption, as the currently agreed solution, which is included in the promoter's viability appraisal, is nonetheless an extremely expensive option."

2.12 Based on the calculations and mitigation proposals set out in these technical notes, there are feasible and deliverable options for achieving nutrient neutrality that would avoid adverse effects on integrity at Stodmarsh SAC and SPA/Ramsar.

Safeguards in policy

2.13 If mitigation that enables Heathlands Garden Settlement and Lenham Broad Site Allocations to be nutrient neutral (or better) cannot be achieved, then development would not be permitted, as provided for in the Local Plan Review:

> **Policy LPRSP14(A) Natural Environment**
>
> Major developments will not be permitted unless they can demonstrate that new or existing water supply, sewage and wastewater treatment facilities can accommodate the new development. Wastewater treatment and supply infrastructure must be fit for purpose and meet all requirements of both the permitting regulations and the Habitats Regulations (for example in relation to nutrient neutrality at the Stodmarsh SAC/SPA/Ramsar site).

2.14 Additional details relating to mitigation have also been incorporated into policies as part of the Main Modifications (see also Appendix D and Chapter 4):

- **Policy SP4(A) Heathlands Garden Settlement**: sets out the indicative phasing of essential infrastructure, including that required to achieve nutrient neutrality.
- **Policy SP5(C) Lenham Broad Location for Housing Growth**: requires applications for development in the Stour Catchment to achieve nutrient neutrality.
- **Policy SP6(D) Lenham**: requires improvements to wastewater capacity to serve the Lenham Broad Location.
- **Paragraph 7.153** (supporting text for Policy LPR SP14a Natural Environment): clarifies that the requirement for nutrient neutrality applies to developments that would result in a net increase in population served by a wastewater system within the Stour catchment.

HRA conclusions in respect of water quality at Stodmarsh SAC and SPA/Ramsar

2.15 The technical expert, Arcadis, has stated that it is possible to demonstrate that nutrient neutrality can be achieved at the proposed Heathlands Garden Community and Lenham Broad Site Allocations; and Natural England has confirmed (by signing the March 2023 SOCG; see paragraph 2.8 above) that it is happy with the proposed approach.

2.16 The safeguards embedded with the Local Plan Review policies (including those within the Main Modifications) ensure that adverse effects on the integrity of the Stodmarsh SAC and SPA/Ramsar can be avoided.

[5] Local Plan examination documents, https://localplan.maidstone.gov.uk/home/local-plan-review-examination

Chapter 3
Air pollution at North Downs Woodlands SAC

Background to technical work

3.1 The findings of the Local Plan Review HRA at Reg. 19 stage stated, in relation to air pollution, that:

> The Appropriate Assessment concluded no adverse effect on integrity as a result of increased air pollution in relation to Medway Estuary and Marshes SPA/Ramsar and The Swale SPA/Ramsar, due to the scale of nitrogen deposition impact and characteristics of the sites.
>
> Nitrogen deposition at North Downs Woodlands SAC has the potential for adverse effects on integrity, due to the impact of the LPR in combination with other plans and projects, on traffic flows the A229, A249 and Detling Road.
>
> Mitigation could include measures such as reducing speeds on affected roads or reducing nitrogen deposition from other sources such as agriculture. Provided that a mitigation strategy is developed and agreed with Natural England before the Local Plan Review is adopted, then it can be concluded that there will not be adverse effects on the integrity of the SAC. This could be verified during the Examination process and confirmed in an HRA Addendum and/or Adoption Statement.

3.2 Natural England's Reg. 19 consultation response (dated December 2021 and linked from Examination document ED3) states that it cannot support a conclusion of no adverse effects on the integrity of North Downs Woodlands SAC due to there not being the sufficient level of scientific certainty required at the Appropriate Assessment stage, as the mitigation strategy had not been developed and agreed at the time.

3.3 In response, further work was commissioned by MBC to:

- Refine and update the assumptions underlying the transport modelling work, for example the proportion of Lidsing Garden Settlement to be built out during the Plan period, other committed developments included in the model, and assumptions about electric vehicle uptake. This work was carried out by for MBC by Jacobs.
- Assess the condition of the habitats within the area of the SAC affected by the predicted increase in air pollution, and determine whether there would be an

adverse effect on the integrity of the site without mitigation. This work was carried out for MBC by Southern Ecological Services.

- Consider mitigation options that would reduce traffic flows on affected roads, such that adverse effects on integrity (if identified) would be avoided. This work was carried out for MBC by Jacobs.

3.4 The implications of this further technical work for the HRA are discussed below.

Refining and updating the traffic and air quality assessment

3.5 Jacobs produced an air quality HRA technical note (ED4C dated 19 May 2022) to predict changes in air quality at ecological receptors within North Downs Woodlands SAC. This identified the potential for the Local Plan to result in significant adverse effects and the need for an ecological assessment for designated ecological habitats. This work has been updated by Jacobs (12 May 2023 technical note **Appendix B**) and now explains that:

> There are predicted increases in nitrogen deposition greater than 1% of the site relevant critical loads (i.e. exceedances) within 10m and 2m of the Affected Road Network for transects B and C respectively, with the Local Plan alone impact (Do Minimum – Do Something) scenario for 2037. Both transects are located adjacent to Boxley Road, which runs directly through the SAC.

3.6 Note that the Local Plan 'in combination' scenario (i.e. Do Something – Do Nothing) does not show an exceedance of the screening threshold because the baseline (Do Nothing) scenario distributes growth that is not attributable to the Local Plan evenly across the modelled area whereas the Do Minimum model provides a more realistic baseline by including the effects of committed developments at specific locations (as explained in the technical note). The key message for the HRA is that one of the modelled scenarios shows an exceedance of screening thresholds, and therefore requires further assessment.

3.7 Previous outputs from the traffic and air quality modelling showed higher exceedance of screening thresholds than the latest modelling, and on all three of the roads passing the SAC (A229, A249 and Boxley Road). The most recent, refined model outputs show that it is only Boxley Road that will see an increase in air pollution above the screening threshold, and only within 10m of the road. This is because the following assumptions within the model were amended:

- Updated assumptions on electric vehicle usage within Defra's Emission Factor Toolkit (EFT version 11);
- Removal of Binbury Park development from traffic model (previously included as an application had been submitted but not recommended for approval);
- Only the part of the Lidsing development that will come forward within the Plan period is now included in the model; and
- Transect points within two metres of the road have been excluded, in line with IAQM guidance.

Ecological survey and adverse effects on integrity

3.8 To demonstrate that there will be no adverse effects on the integrity of the North Downs Woodlands SAC, the ecological findings and/or mitigation strategy would need to provide evidence that air pollution associated with development provided by the Local Plan Review in combination with that provided by other relevant plans and programmes would not prevent the site's conservation objectives (in relation to air quality) being met.

3.9 The conservation objectives[6] for the site are to *"Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:*

- *The extent and distribution of the qualifying natural habitats;*
- *The structure and function (including typical species) of the qualifying natural habitats; and*
- *The supporting processes on which the qualifying natural habitats rely."*

3.10 Supplementary advice for the site[7] provides further detail on how this can be achieved and sets a target for air quality: *"Maintain as necessary, the concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for this feature of the site on the Air Pollution Information System (www.apis.ac.uk)."*

3.11 As set out in the Reg. 19 HRA Report, the relevant critical loads for this site within 200m of roads (A249, A229, and Detling Road) are for *Taxus baccata* woods of the British

[6] European Site Conservation Objectives for North Downs Woodlands Special Area of Conservation: http://publications.naturalengland.org.uk/file/5579173532008448

[7] European Site Conservation Objectives: Supplementary advice on conserving and restoring site features North Downs Woodlands Special Area of Conservation (SAC): http://publications.naturalengland.org.uk/file/5280120969625600

Isles and *Asperulo-Fagetum* beech forests, which have a critical load of 5-15 kg N/ha/yr and 10-20 kg N/ha/yr respectively. Nitrogen deposition for woodland habitat within this SAC is currently at a minimum of 25.2 kg N/ha/yr and a maximum of 25.9 kg N/ha/yr[8], which exceeds the critical loads. APIS Source Attribution Data shows that road transport is responsible for c.17% of contributions to nitrogen deposition (KgN/ha/yr) from local sources, with a similar proportion arising from livestock (the two largest sources).

3.12 Since air pollutants are already above site relevant critical loads and the updated air quality assessment has predicted that there will be an increase in nitrogen deposition (of >1% of the critical load; the screening threshold) then either:

- An ecological assessment would need to demonstrate that this increase in nitrogen deposition will not cause adverse effects on integrity at the affected parts of the SAC; or
- Effective mitigation measures that mean adverse effects on integrity can be avoided will need to be agreed, and their implementation secured, prior to adoption of the Local Plan.

3.13 Seasonal constraints to ecological surveying meant that the findings of the ecological assessment were not completed in time for the Stage 2 Hearings. The work was undertaken subsequently and the survey (**Appendix B**) confirmed that the SAC's qualifying woodland habitats are present within the air pollution impact zone (i.e. the areas in which nitrogen deposition is predicted to exceed screening criteria). Therefore, adverse effects on integrity cannot be ruled out on the basis of local ecological characteristics.

Development of mitigation

Technical options

3.14 Jacobs proposed a suite of mitigation measures that could be avoid adverse effects at North Downs Woodlands SAC due to nitrogen deposition, primarily by reducing traffic on the roads within 200m of the SAC (A229, A259 and Boxley Road), although options to screen the SAC from nitrogen deposition were also considered:

1. Green Travel Planning focussed on employment facilities, commercial facilities, schools and the use of transport connections within and adjacent to the development.
2. Traffic calming to discourage access/egress via Boxley and Bredhurst.
3. Provision of cycle and pedestrian facilities to encourage sustainable modes of transport via Boxley and Bredhurst.
4. On-site measures to encourage/increase take up of low emission vehicles, such as electric vehicle charging points.
5. HGV and other vehicle "site servicing" and "delivery route" management strategies.
6. Strategic road signage strategy.
7. Off-site planting at agreed locations and species (note that this option is not appropriate to the Boxley Road, where the SAC qualifying features are adjacent to the road).
8. The design of residential layouts and configuration of estate roads in a manner which discourages access/egress via Boxley and Bredhurst.
9. Typologies of development located at the southern sector of the site which generate lower car ownership levels of trip rates, i.e.: higher density apartment type accommodation, older persons accommodation.
10. Home and flexible working supported by broadband infrastructure to encourage and enable people to drive less.
11. Low emission strategy at south of site and through Boxley/Bredhurst.

3.15 Jacobs subsequently modelled traffic calming on Boxley Road / Lidsing Road, along with the the new road linking Lidsing Garden Settlement to the M2, as this was considered the measure likely to be most effective at reducing nitrogen deposition at North Downs Woodlands SAC. The modelling demonstrated that this measure would reduce nitrogen deposition such that none of the modelled transects exceed the screening threshold, on any of the roads within 200m of the SAC. Jacobs' technical note (Appendix B) states that "It is recognised that KCC and National Highways will not be in a position to endorse the proposed traffic calming at this stage as the wider impacts for such an intervention remain unknown , including assessment of the impact at key junctions." In the event that the tested mitigation could not be delivered, then the safeguards now incorporated within the Main Modifications to policies LPR SP14a and LPR SP4b (see below) provide assurance that development would not proceed without suitable mitigation being agreed and in place.

[8] Up to date at July 2023

3.16 Therefore adverse effects on the integrity of the North Downs Woodlands SAC due to air pollution from the LPR alone or in combination can be avoided.

3.17 Further detailed work will be undertaken by Lidsing at the planning application once the site layout etc in known. If this still shows a likely exceedance of air quality screening thresholds, then an alternative mitigation approach may be proposed. Any approach would need to demonstrate that it would be effective, and be agreed with Natural England.

Safeguards in policy

3.18 The requirements for mitigation have been incorporated into policy as part of the Main Modifications (see also **Appendix C** and **Chapter 4**):

Policy LPRSP14(A) Natural Environment

Now states that:

"The Council will work with Natural England to assess, monitor and if necessary mitigate any recreation pressure or air pollution effects at North Downs Woodlands SAC.

Development proposals must support the Council's nature conservation objectives and in doing so must not result in adverse effects on the integrity of the North Downs Woodland SAC. Any air pollution mitigation strategy will be developed and agreed with Natural England before the development commences and implemented prior to adverse effects on integrity occurring; developer contributions will be used to support this where appropriate. The Council is committed to ensuring that development within the borough will not contribute to adverse effects on the SAC due to air quality and will take the lead on coordinating any strategic mitigation required to minimise air pollution at the SAC."

And its supporting text states that:

"The Local Plan Review makes provision for a new garden community at Lidsing, where the impact of new development on the integrity of the North Downs Woodlands SAC requires careful consideration. Provided that the air pollution mitigation specified by Policy LPRSP4(B) is delivered then adverse effects on the SAC due to air quality from the plan as a whole, alone or in-combination, can be ruled out. In the event that the Lidsing garden community is not delivered, the Council will agree a proposed approach with Natural England, and no further development contributing to an increase in traffic to roads within 200m of the SAC (A229, A249 or Boxley Road) will be permitted until mitigation has been agreed, unless applicants can demonstrate that they will not have an adverse effect on the integrity of the SAC, alone or in-combination."

3.19 The mitigation requirements specific to Lidsing Garden Settlement have also been incorporated, as follows:

Policy LPRSP4(B) Lidsing Garden Settlement

Now states that:

"Development proposals must demonstrate that the Lidsing garden community, either alone or in combination with other relevant plans and projects, will avoid adverse effects on the integrity of the North Downs Woodlands SAC, due to air quality, with reference to Policy LPRSP14(A). Mitigation measures will be required where necessary and appropriate."

And its supporting text states that:

"The impact of new development on the integrity of the North Downs Woodlands SAC requires careful consideration, with reference to Policy LPRSP14(A). Traffic modelling of the proposed development will be required to quantify the predicted nitrogen deposition on roads passing the SAC. If nitrogen deposition exceeds the screening criteria set out in IAQM guidance (1% of the SAC's critical load for nitrogen deposition), then mitigation will be required. Mitigation measures must be set out in a Mitigation Strategy, to be agreed by the Council and Natural England. Applications must clearly demonstrate through project-level HRA that the Mitigation Strategy is appropriate, can be feasibly implemented and will be sufficient to fully mitigate any identified adverse effects on the SAC. Mitigation measures may be provided on and/or off-site as appropriate and necessary.

In preparing the Mitigation Strategy, applicants should have regard to the following package of mitigation measures which may be deployed, either in isolation or in-combination, as and when necessary and appropriate for air quality. The mitigations, which are in no particular order and are not exclusive, are as follows:

i. Green Travel Planning focussed on employment facilities, commercial facilities, schools and the use of transport connections within and adjacent to the development .

ii. Traffic calming to discourage access/egress via Boxley and Bredhurst.

iii. Provision of cycle and pedestrian facilities to encourage sustainable modes of transport via Boxley and Bredhurst.

iv. On-site measures to encourage/increase take up of low emission vehicles, such as EV charging points.

v. HGV and other vehicle “site servicing” and “delivery route” management strategies.

vi. Strategic road signage strategy.

vii. Off-site planting at agreed locations and species.

viii. The design of residential layouts and configuration of estate roads in a manner which discourages access/egress via Boxley and Bredhurst.

ix. Typologies of development located at the southern sector of the site which generate lower car ownership levels of trip rates, i.e.: higher density apartment type accommodation, older persons accommodation.

x. Home and flexible working supported by broadband infrastructure to encourage and enable people to drive less.

xi. Low emission strategy at south of site and through Boxley/Bredhurst.“

HRA conclusions in respect of air pollution at North Downs Woodlands SAC

3.20 Modelling has demonstrated that adverse effects on the integrity of North Downs Woodlands SAC can be avoided, in relation to air pollution, alone or in combination with other plans or projects. The modelled approach (traffic calming along Boxley Road / Lidsing Road, and the new link road for Lidsing Garden Settlement) may be superseded by an alternative approach, following detailed assessment as part of the Lidsing Garden Settlement planning application, if proven to be effective and agreed with Natural England. The requirements for mitigation are set out in LPR Policies SP14(A) and SP4(B) (as set out in the Main Modifications; see Chapter 4), and these are sufficient to conclude ‘no adverse effects on integrity’.

Chapter 4
Assessment of Main Modifications

4.1 Main Modifications that affect the HRA are summarised in **Appendix D** and assessed below.

Main Modifications with the potential for likely significant effects

Main Modifications that alter quantum of development

4.2 Main Modifications within the Spatial Strategy policy alter the overall quantum of development, and these changes are reflected in other related policies and site allocations:

- **Policy SS1 Maidstone Borough Spatial Strategy**: increases quantum of development for housing (1,923 additional homes), employment (17,695m^2 additional floorspace) and retail (591 m^2 additional floorspace); has also been updated to reflect change in Plan period from 2022-2037 to 2021-2038.

The changes in retail provision are considered minor, but the changes in residential and employment quantum have the potential for likely significant effects and are considered further below.

- **Policy SP10 Housing delivery**: this is a new policy (see below) that reflects the changes in housing quantum in Policy SS1 and sets out the housing delivery trajectory and housing provision at each neighbourhood area.
- Site allocations seeing changes in numbers of homes are associated with policies:
  - **Policy SP1 Maidstone Town Centre**; Office conversion broad location (reduction of 73)
  - **Policy SP1 Maidstone Town Centre**; King Street car park (increase of 700)
  - **Policy SP4(A) Heathlands Garden Community** (reduction of 90)
  - **Policy SP4(B) Lidsing** (increase of 40)
  - **Policy SP8 Smaller villages**: Ulcombe (reduction of 10), Chart Sutton (increase of 10).

The majority of the changes to residential quantum on individual site allocations are minor; however the increase in number of homes at Maidstone Town Centre

growth location has the potential for likely significant effects and is assessed further below.

- **Policy SP11(B) Creating new employment opportunities**: reflects the changes in quantum in Policy SS1 and sets out how those changes are distributed around the site allocations. Site allocations seeing changes in employment floorspace are:
  - **RMX1(3) King Street Car Park**, additional allocation in Maidstone Town Centre (1,400m2 town centre use space);
  - **LPR SA362 Police HQ Sutton Road**, in Maidstone Urban Area (additional 5,800m2 office space).

The majority of the changes to employment quantum on individual site allocations are minor; however the increase in employment floorspace in Maidstone (Town Centre plus Urban Area) has the potential for likely significant effects and is assessed further below.

Main Modifications that introduce a new policy

4.3 **Policy SP10 Housing delivery** replaces the former SP10 Housing and sets out the housing delivery trajectory and housing provision at each neighbourhood area. The quantum of development has been assessed in the HRA in relation to overarching Policy SS1 Maidstone Borough Spatial Strategy, and the individual (and in-combination) site allocations. Policy SP10 does not therefore result in additional development that requires assessment in its own right.

There are no likely significant effects associated with the new Policy SP10 Housing delivery.

Main Modifications that update mitigation for HRA

Water quality effects on Stodmarsh SAC and SPA/Ramsar

4.4 The following policies have been updated to reflect the requirements for mitigation to achieve nutrient neutrality at Heathlands Garden Settlement and Lenham Broad Location:

- **Policy SP4(A) Heathlands Garden Settlement**: the modifications introduce a phasing and delivery schedule for infrastructure and include the requirements to provide the following:
  - Phase 1 (2031-2037; c.1,310 homes): New / improved wastewater treatment mechanisms delivered and cordon sanitaire; and phased nutrient neutrality mitigation delivered in accordance with Nutrient Neutrality Strategy.
  - Phase 3 (to 2048; c.3,758 homes): phased nutrient neutrality mitigation delivered in accordance with Nutrient Neutrality Strategy.
  - Phase 4 (to 2054; c.5,000 homes): phased nutrient neutrality mitigation delivered in accordance with Nutrient Neutrality Strategy.
- **Policy SP5(C) Lenham Broad Location for Housing Growth**: the modifications embed the requirement for applicants to demonstrate that nutrient neutrality, and therefore the Habitats Regulations, can be met.
- **Policy SP6(D) Lenham:** now refers to the need for improvements to wastewater capacity to serve the Lenham broad location unless otherwise stated by the utility provider.
- **Paragraph 7.153** (supporting text for Policy LPR SP14a Natural Environment): clarifies that the requirement for nutrient neutrality applies to developments that would result in a net increase in population served by a wastewater system within the Stour catchment.

Air quality effects on North Downs Woodlands SAC

4.5 The requirements for further assessment and mitigation of air quality effects at North Downs Woodlands SAC have been incorporated into the Main Modifications as follows:

- **Policy SP14(A) Natural Environment:** states that development proposals must support the Council's nature conservation objectives and in doing so must not result in adverse effects on the integrity of the North Downs Woodland SAC. Any air pollution mitigation strategy will be developed and agreed with Natural England before the development commences and implemented prior to adverse effects on integrity occurring; developer contributions will be used to support this where appropriate. The Council is committed to ensuring that development within the borough will not contribute to adverse effects on the SAC due to air quality and will take the lead on coordinating any strategic mitigation required to minimise air pollution at the SAC.
- Supporting text to SP14(A) explains that the air pollution mitigation specified by Policy LPRSP4(B) will avoid adverse effects on the SAC due to air quality from the plan as a whole, alone or in-combination. In addition, a 'backstop' position is provided in the event that the Lidsing garden community is not delivered. In that case, the Council will agree an approach to air pollution mitigation with Natural England, and no further development contributing to an increase in traffic to roads within 200m of the SAC (A229, A249 or Boxley Road) will be permitted until mitigation has been agreed,

unless applicants can demonstrate that they will not have an adverse effect on the integrity of the SAC, alone or in-combination. .

- **Policy SP4(B) Lidsing Garden Settlement**: states that development proposals must demonstrate that the Lidsing Garden Settlement, in combination with other relevant plans and projects, will avoid adverse effects on the integrity of the North Downs Woodlands SAC, due to air quality, with reference to Policy LPRSP14(A). The new supporting text to SP4(B) describes how this can be achieved.

Implications for previous HRA findings

4.6 This section assesses the implications of the Main Modifications on the findings reported in the Reg.19 HRA and also takes into account the additional technical work reported in Chapters 2 and 3 of this addendum.

Air pollution

4.7 Jacobs, as transport and air quality advisers to MBC, have confirmed that the Main Modifications will not result in significant changes to the modelled traffic flows or nitrogen deposition on roads within 200m of European sites. ***<To be confirmed by Jacobs>***

4.8 The proposed Main Modifications also now provide certainty that adverse effects on the integrity of North Downs Woodlands SAC can be avoided through mitigation.

Recreation pressure

4.9 The Reg.19 HRA concluded in relation to recreation pressure that there would be no adverse effect on integrity as a result of increased recreational pressure in relation to all European sites, provided that the following safeguards and mitigation measures required by the plan are successfully implemented:

- Policy SP14(A): "The Council will work with Natural England to assess, monitor and if necessary mitigate any recreation pressure and air pollution effects at North Downs Woodlands SAC."
- Policy SP4(B): confirms Lidsing Garden Settlement will contribute to the Bird Wise tariff, which provides mitigation for effects at Medway Estuary and Marshes SPA/Ramsar. Proposals for the site also include a cycling and walking link to Capstone Valley Country Park and enhancements to the country park, as well as open space within the new settlement (31ha of semi natural open space plus amenity green space, play, sports and allotment provision); these provide mitigation for potential effects at Queendown Warren SAC.

4.10 The overall increase in the number of homes provided with in the Plan area as a whole, and particularly in Maidstone town, is likely to slightly increase visitor numbers to North Downs Woodlands SAC. However, as explained in the Reg.19 HRA:

> Allocated sites (and development permitted outside these, e.g. within villages) within 7km of North Downs Woodlands SAC, which includes sites around Maidstone town and Lidsing, could contribute to visitor pressure at the European site.
>
> Natural England has confirmed through consultation that the issues with recreation at North Downs Woodlands SAC are from off road vehicles and mountain bikes coming off the permitted rights of way into the woodland. Legitimate uses such as walking are not seen as a concern. Antisocial behaviour is by a small number of visitors and therefore not as strongly linked to nearby population increases as overall visitor numbers would be, although there is likely to be some correlation.
>
> Natural England has said that in order to manage the effects of off road vehicles, the relevant authorities need to maintain paths in good condition (particularly the byways) and work with landowners and the community to deter off-roading.
>
> Policy SP14(A) of the Local Plan Review states that:
>
> "The Council will work with Natural England to assess, monitor and if necessary mitigate any recreation pressure and air pollution effects at North Downs Woodlands SAC. "
>
> This is considered sufficient to address the effects of recreation associated with residential development within 7km of the SAC, which are primarily associated with off-road vehicles rather than general visitor numbers.

4.11 The increase in homes provided for by the main modifications to the Plan is not expected to change this conclusion or the required mitigation.

4.12 There is no significant change in the number of homes proposed at Lidsing in the main modifications, and the proposed green infrastructure enhancements remain the same, therefore the mitigation proposed in Policy SP4(B) is considered likely to remain effective for impacts at Medway Estuary and Marshes SPA/Ramsar and Queendown Warren SAC. The Reg.19 HRA stated that:

> The Bird Wise North Kent Mitigation Strategy requires all new dwellings within 6km of the SPA/Ramsar to contribute to a tariff to fund access management and monitoring. The strategy is currently in place until 2034, which falls slightly short of the Local Plan Review end

date of 2037; however, because the updated visitors surveys have been postponed due to the pandemic, Natural England has confirmed that Maidstone Borough Council can rely on the strategy as mitigation to 2037.

4.13 As the main modifications extend the Plan period further, to 2038, Natural England's opinion has been sought as to whether Maidstone's Local Plan Review can continue to rely on the Bird Wise Strategy as mitigation. Natural England has confirmed (see Appendix A) that their advice continues to be that financial contributions to BirdWise are appropriate to mitigate recreational impacts at coastal sites, based on the best available evidence.

Water quantity and quality

4.14 The Reg.19 HRA concluded in relation to water quantity and quality that:

Provided that Natural England is supportive of the policy requirements and mitigation measures developed and agreed in relation to nutrient neutrality at sites affecting Stodmarsh SAC and SPA/Ramsar before the Local Plan is adopted, then it can be concluded that there will not be an AEOI from the LPR. This could be verified during the Examination process and confirmed in an HRA Addendum and/or Adoption Statement.

4.15 The mitigation strategy has since been agreed (as set out in Chapter 2) and its requirements have been incorporated into the Main Modifications.

4.16 There will be no adverse effects on the integrity of Stodmarsh SAC and SPA/Ramsar, following changes made by the Main Modifications.

Chapter 5
Conclusions

5.1 Following the additional work to test air pollution mitigation measures in relation to North Downs Woodlands SAC, and the agreed Main Modifications; it is now possible to conclude that there will be no adverse effects on any European sites arising from the Local Plan Review, alone or in combination with other plans or projects. ***<Subject to receipt of confirmations highlighted at paras 4.7 from Jacobs>***

Appendix A

Natural England consultation responses

Regulation 19 representation

A.1 Natural England provided comments on the Local Plan Review (Regulation 19), on 10 December 2021, Examination Document ED3.

A.2 Following the technical work outlined in Chapter 1 of this HRA addendum, those comments have been superseded by the ongoing discussions and comments provided during Examination.

Additional consultation during Examination

A.3 The following summarises Natural England's comments on, and agreements made in respect of, information provided during the Local Plan Review Examination:

- Letter from Natural England "Heathlands Garden Community and Lenham Broad - Nutrient Neutrality Assessment and Mitigation Proposals", 29 July 2022, Examination Document ED35 – reproduced below.
- Informal comments from Natural England which informed the air quality and HRA progress note prepared by MBC in response to the Inspector's post-Stage 1 letter requesting an update on progress towards addressing air quality issues. The note summarises discussions with Natural England, 31 March 2023, Examination Document ED77[9].
- Natural England review of Jacobs' technical note (ED78[10])
- Statement of Common Ground between Maidstone Borough Council and Natural England, October 2022 (updated March 2023), Examination Document ED99 – reproduced below.

Consultation in relation to main modifications

A.4 As the main modifications extend the Plan period by one year to 2038, Natural England's opinion was sought as to whether the Bird Wise strategy remained appropriate as

[9] Examination document ED77: https://drive.google.com/file/d/1J-66c41q45_4Q_YvmtFbJaYITLZ6PDWA/view?usp=share_link

[10] Examination document ED78: https://drive.google.com/file/d/1HntyF9YpGL8lNvovAhpc2JWT8mWHz-T-/view?usp=share_link

mitigation. Natural England confirmed through personal communication on 5 September 2023 that:

"Whilst the Bird Wise management of the Strategic Access Management and Monitoring Strategy (SAMMS) for the Thames, Medway and Swale Estuaries and the Local Plan time frames do not fully correlate, given there is the Local Plan review and there will also need to be a review of the SAMMS, our advice would at present (based upon the best available evidence) be that the appropriate financial contribution to Bird Wise appears appropriate to mitigate recreational impacts to the coastal designated sites. As you mention, when the Local Plan is reviewed there will be the opportunity to revisit recreational disturbance and if appropriate, the mitigation measures that will be needed."

Appendix B

Technical notes: Air quality assessment and mitigation

B.1 Technical note prepared by Jacobs, 12 May 2023.

B.2 Technical note prepared by Jacobs to assess proposed mitigation, 5 September 2023.

B.3 NVC survey report of North Downs Woodlands SAC by Southern Ecological Solutions, 11 July 2023

Maidstone Local Plan

Air Quality HRA Technical Note

Document No. | 4.3

12/05/2023

Kent County Council and Maidstone Borough Council

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Contents

Limitation Statement

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1. Introduction

1.1 Background

Maidstone Borough Council (MBC) and Kent County Council (KCC) are undertaking a Local Plan Review (LP) for the MBC to address the latest Government standard methodology for calculating authorities' future housing numbers and extend the Maidstone Local Plan period to at least 2037.

In September 2021, the Stage 2 Maidstone Local Transport Modelling and Air Quality Assessment were completed to test the impacts of the committed and local plan developments. More information can be found in Stage 2 Maidstone Local Plan (LP) – Initial Option Forecast Report (Jacobs, 2021a) and Maidstone LP Review Stage 2 (Jacobs, 2021b).

The air quality assessment undertaken highlighted increases in nitrogen emissions and associated nitrogen deposition on the area of the North Downs Woodland Special Area of Conservation (SAC).

In January 2022, updates were made to the Maidstone Local Transport Model to incorporate changes to the planned developments represented; one of which was the removal of Binbury Park. More details on the approach and methodology can be found in the Maidstone Local Plan – Extended Forecast Modelling Report, Jacobs, 2022a.

1.2 Purpose of this Document

This technical note describes the results of the detailed air quality impact assessment of the 2037 Maidstone Local Plan (LP) Review scenario.

This assessment has been undertaken to determine the impact of nitrogen deposition on the North Downs Woodland SAC.

The 2037 Maidstone LP Review scenario also includes the Defra updated Emission Factor Toolkit (EFT) version 11; (Defra, 2021) which includes electric vehicle fleet penetration into the fleet mix up to 2050. EFT version 11 post 2030 has been produced for use in calculating carbon dioxide (CO_2) emissions as opposed to air quality pollutant emissions (such as oxides of nitrogen (NO_X), as pre-cursor for nitrogen deposition) post 2030. However, the use of electric vehicles will not just reduce emissions of CO_2, but will also reduce emissions of NO_X (as electric vehicles do not produce NO_x), it is therefore deemed appropriate for this assessment.

The Do-Something (DS) has been compared to the Do-Nothing (DN), to estimate the in-combination impact, and the Do-Minimum (DM), to estimate the LP alone impact. Although the LP alone impact scenario is unlikely to happen in isolation of the wider geographical developments, it should be considered that the DM scenario for this study includes developments that are approved and have a high probability of happening. Therefore, the DM represents a more realistic baseline, to the DN, for comparison purposes. The description of each scenario is discussed further in the next section of this report.

It should be noted that this report is an interim version and will be updated once additional options have been confirmed and assessed.

2. Assessment Methodology, Assumptions and Limitations

2.1 Guidance

The assessment of air quality has been completed using the following guidance:

- Design Manual for Roads and Bridges (DMRB) LA 105 Air Quality (Highways England, 2019)
- Local Air Quality Management – Technical Guidance (LAQM TG(22)) (Defra, 2022)
- Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (Natural England, 2018)
- Institute of Air Quality Management – A guide to the assessment of air quality impacts on designated nature conservation sites, v1.1, May 2020 (IAQM, 2020)

2.2 Assessment Scenarios

The following scenarios were considered in this assessment:

- The Do-Nothing (DN) scenario in the forecast year (2037) includes global traffic growth derived from TEMPro. TEMPro is a software that summarises the growth forecast from the National Trip End Model (NTEM). This data takes into account national projections of population, employment, housing, car ownership and trip rates. Adjustments were made to TEMPro to calculate the low growth figure and develop a hypothetical situation of low growth scenario across Kent and Maidstone (refer to Maidstone Local Plan - Stage 2 - Initial Options Forecast Report, Jacobs, 2021a).
- The Do-Minimum (DM) scenario in the forecast year (2037) includes background growth from TEMPro and committed developments in Maidstone. The committed developments are those developments with approval, under construction or high probability that it will happen (i.e. the Reference Case scenario described in the Maidstone Local Plan - Extended Forecast Modelling Report; Jacobs, 2022a).
- The Do-Something (DS) scenario in the proposed implementation year (2037) includes the demand considered in the DM scenario, plus the local plan developments (i.e. the Option 2 scenario described in the Maidstone Local Plan - Extended Forecast Modelling Report; Jacobs, 2022a). It is worth noting that the 2037 DS scenario only assumes partial build out of Lidsing based on the development trajectory for 2037 (i.e. the assumed residential units are 1,300 instead of 5,000). Appendix C details the plans and proposals included within the traffic data for this scenario. The plans and proposals were based on information received in January 2022 from MBC.

2.3 Study Area

Changes in traffic in the Do-Something scenario were compared against the Do-Nothing scenario to define the Affected Road Network (ARN), which is shown in Appendix A. This is in accordance with Natural England (2018) which recommends that the screening thresholds should be applied to identify 'in-combination' effects.

2.4 Sensitive Receptors

Receptors representing the North Downs Woodland SAC within 200m of the ARN were included in the air quality assessment. However, paragraph 5.4.1.13 of the IAQM guidance (IAQM, 2020) recommends *'modelling predictions are not made closer than 2 m from the edge of the road'*. Transect points have therefore started at 2m from the nearest point of the road edge, where the SAC is within 2m of the road edge, in accordance with the IAQM guidance. Transect receptor points at approximately 10m intervals were modelled, up to a maximum distance of 200m from the road edge. Transects for each of the designated ecological receptors are shown in Appendix A.

2.5 Summary of Methodology

The methodology set out within Maidstone LP Review Stage 2 Report (Jacobs, 2021b) was followed to assess nitrogen deposition at the North Downs Woodland SAC. However, towards the end of 2021, Defra released a new version of EFT version11 which has been incorporated into this assessment.

The detailed assessment of the potential air quality effects has been undertaken using the dispersion modelling software ADMS-Roads. It is an atmospheric dispersion modelling system that focuses on road traffic as a source of pollutant emissions and is a recognised tool for carrying out air quality impact assessments. Version 5.0.1.3 (January 2022) was used for this assessment.

Model verification adjustment factors for NO_X were applied to the air quality modelling results. The factors applied to the results were taken from the Maidstone LP Review Stage 2 Report (Jacobs 2021b). Model calibration and adjustment is not discussed further in this assessment.

2.6 Magnitude and Significance

The predicted changes in nitrogen deposition were used to identify the potential for significant effects to occur at the habitat. With regard to nitrogen deposition, critical loads for designated ecological habitats in the UK have been published by the Centre for Ecology and Hydrology - and were obtained from the Air Pollution Information System (APIS) website (Centre for Ecology and Hydrology, 2023).

Nitrogen deposition rates were updated on the APIS website in January 2023 as a result of a national error being identified in the previous website data utilised in this assessment. Therefore, the nitrogen deposition rates utilised in the 2037 Maidstone LP Review scenario have been updated to reflect the updated nitrogen deposition rates.

Following a site walkover by a project ecologist, whereby updated habitat type information was provided, the habitat types for transects A and D have been updated from 'Coniferous Woodlands' to 'Broadleaved Deciduous Woodland'.

DMRB LA 105 (Highways England, 2019) states that if the change in nitrogen deposition is greater than 1% of the lower critical load and the total deposition is greater than lower critical load, then there is a potential impact. If this is the case, the information should be reviewed by the project ecologists to determine their significance and where practicable, mitigation should be proposed.

2.7 Assumptions and Limitations

The assessment provided within this technical note is based on information available at the time of writing.

As with any computer model that seeks to predict future conditions, there is uncertainty in the predictions made. Whilst being the best predictions available, elements of impact prediction such as the specific concentration of a pollutant at a given receptor are not precise and are always subject to a margin of error. These errors have been minimised and where necessary a cautious approach has been used.

Based on IAQM guidance (IAQM 2020), receptor points along each transect started at 2m from the nearest road edge to the North Downs SAC.

3. Air Quality Assessment Results

3.1 Scenarios with 2037 Maidstone LP Review

This section considers the likely effects that the 2037 Maidstone LP review could have on the North Downs Woodland SAC.

HRA Assessment

In order to provide an indication of whether the 2037 Maidstone LP Review has the potential to impact nitrogen deposition, the change in nitrogen deposition has been estimated at the closest point within the SAC (or at 2m if appropriate) to the ARN and compared to the lowest critical load for the Designated Site. Where the change in nitrogen deposition (PC) is estimated to be greater than 1% of the lowest possible critical load, this has been used to indicate where changes in nitrogen deposition have the potential to affect the SAC. Likewise, where changes in nitrogen deposition are estimated to be less than this amount, then it has been assumed that any resulting impacts are unlikely to be significant.

2037

A summary of the results of this assessment for the DM-DS (LP alone impacts) scenario are provided in Table 3-1. Only receptors with potentially significant impacts are shown. As there are no significant impacts for DN-DS (in-combination impacts), no results are shown for this scenario in this section, however, the results for DN-DS (in-combination impacts) are provided in Appendix B.

The results in Table 3-1 indicate that the change in site relevant critical loads for nitrogen deposition are modelled to be greater than 1% for the DM-DS (LP alone) scenario (i.e. exceeded), as a result of the 2037 Maidstone LP.

These exceedances are predicted within transects B, up to 10m from the ARN, and transect C, up to 2m from the ARN. These transect points are located adjacent to Boxley Road, which runs directly through the SAC. As explained in Section 1.2, although the LP alone impact scenario is unlikely to happen in isolation of the wider geographical developments, it should be considered that the DM scenario for this study includes developments that are approved and have a high probability of happening. Therefore, the DM represents a more realistic baseline, to the DN, for comparison purposes.

As explained in Section 2.2, the levels of traffic demand for each scenario vary. The DN scenario (considered as part of the in-combination impacts) assumed global growth evenly applied across the model, while the DM (considered as part of the LP alone impacts) includes the committed developments, which are concentrated on specific locations. The same case applies to the DS scenario, which includes committed and local plan developments. The different levels of growth and development result in different traffic patterns in each scenario.

In analysing the DN-DS (in-combination impacts), no impacts were predicted because the difference in the traffic flows predicted changes in concentrations is lower than the 1% nitrogen deposition change threshold. On the other hand, the DM-DS (LP alone impacts) predicted potential impacts on Boxley Road, because the difference in traffic, resulted in concentrations exceeding the 1% threshold. This is due to more traffic being predicted to use Boxley Road in the DN, compared to the DM, due to the global TEMPro growth applied across the model. However, in the DM, the traffic on Boxley Road is slightly lower than the DN due to the different levels of growth from the committed developments (i.e. site specific development growth as opposed to just global growth). This results in the DM-DS (LP alone) predicted to have a higher magnitude of traffic flow difference compared to the DN-DS difference. This traffic pattern is expected since the DM scenario included developments that are more concentrated on specific locations, resulting in more localised traffic redistribution.

It is noted that in accordance with IAQM guidance the results predicted at less than 2m from the road edge are not considered to be reliable and may not represent areas of relevance. There is therefore potential for the DM-

DS (LP alone impacts) 2037 Maidstone LP Review scenario to result in significant adverse effects at these locations. The likely significance should be determined by a competent expert for biodiversity within the HRA. Should likely significant effects be determined by a competent expert for biodiversity, mitigation measures have been identified and can be provided to the planning inspector should these be requested.

Table 3-1: Modelled air quality designated habitat receptors for nitrogen deposition in 2037, for the HRA assessment between the DM and DS (LP alone) scenario.

Receptor	Ecological Transect	Minimum Distance to Road (m)	Total Nitrogen Deposition Rate 2037 (Maximum) (kg N/ha/yr)		Change in Nitrogen Deposition (DS-DM) (kg N/ha/yr)	Site Relevant Critical Load (kg N/ha/yr)	Change in Nitrogen Deposition in Relation to Lower Critical Load (%)
			DM	DS			
ECO_B_2	SAC North Downs Woodlands#2	2.0	33.6	33.9	0.3	10	2.65
ECO_B_10	SAC North Downs Woodlands#2	10.1	32.7	32.8	0.1	10	1.44
ECO_C_2	SAC North Downs Woodlands#3	2.0	32.7	32.8	0.1	10	1.44

4. Conclusions

Detailed air dispersion modelling has been undertaken to predict changes in air quality at ecological receptors within the North Downs Woodland SAC. The assessment took account of APIS background deposition rates to provide predicted nitrogen deposition rates in the North Downs Woodland SAC.

4.1 Scenarios with 2037 Maidstone LP Review

There are no potential significant effects modelled for the DN-DS (in combination) in 2037.

There are predicted increases in nitrogen deposition greater than 1% of the site relevant critical loads (i.e. exceedances) within 10m and 2m of the ARN for transects B and C respectively, with the LP alone impact (DM-DS) scenario for 2037. Both transects are located adjacent to Boxley Road, which runs directly through the SAC.

In analysing the DN-DS (in-combination impacts), no impacts were predicted because the difference in the traffic flows predicted changes in concentrations is lower than the 1% nitrogen deposition change threshold. On the other hand, the DM-DS (LP alone impacts) predicted potential impacts on Boxley Road, because the difference in traffic, resulted in concentrations exceeding the 1% threshold. This is due to more traffic being predicted to use Boxley Road in the DN, compared to the DM, due to the global TEMPro growth applied across the model. However, in the DM, the traffic on Boxley Road is slightly lower than the DN due to the different levels of growth from the committed developments (i.e. site specific development growth as opposed to just global growth). This results in the DM-DS (LP alone) predicted to have a higher magnitude of traffic flow difference compared to the DN-DS difference. This traffic pattern is expected since the DM scenario included developments that are more concentrated on specific locations, resulting in more localised traffic redistribution.

There is therefore potential for the 2037 LP alone impact (DM-DS) only to result in significant adverse effects at these habitats. As explained in Section 1.2, although the LP alone impact scenario is unlikely to happen in isolation of the wider geographical developments, it should be considered that the DM scenario for this study includes developments that are approved and have a high probability of happening. Therefore, the DM represents a more realistic baseline for comparison purposes. The final determination of significance for designated ecological habitats should therefore be made by a competent expert for biodiversity. Should likely significant effects be determined by a competent expert for biodiversity, mitigation measures have been identified and can be provided to the planning inspector should these be requested.

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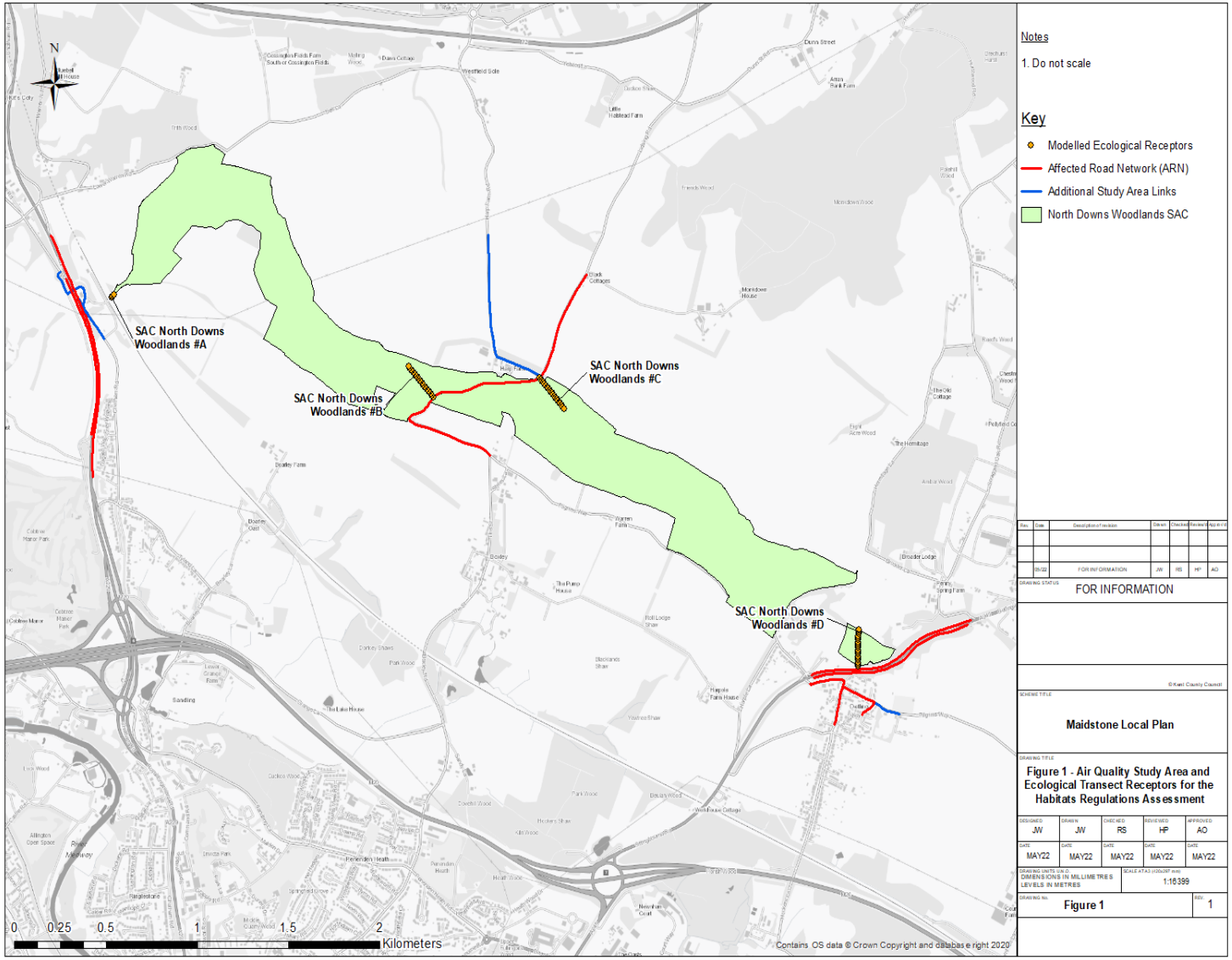
Appendix A. Figures

Figure 1: Air Quality Study Area and Ecological Transect Receptors.



Appendix B. DN-DS (in-combination impacts) results

Table B 1: Modelled air quality designated habitat receptors for nitrogen deposition in 2037, for the HRA assessment between the DN and DS (in-combination impacts) scenario.

Receptor	Ecological Transect	Minimum Distance to Road (m)	Total Nitrogen Deposition Rate 2037 (Maximum) (kg N/ha/yr)		Change in Nitrogen Deposition (DS-DN) (kg N/ha/yr)	Site Relevant Critical Load (kg N/ha/yr)	Change in Nitrogen Deposition in Relation to Lower Critical Load (%)
			DN	DS			
ECO_A_2	SAC North Downs Woodlands#1	163.5	32.0	31.9	0.0	10	-0.46
ECO_A_10	SAC North Downs Woodlands#1	171.5	31.9	31.9	0.0	10	-0.43
ECO_A_20	SAC North Downs Woodlands#1	181.5	31.9	31.9	0.0	10	-0.43
ECO_B_2	SAC North Downs Woodlands#2	2	33.9	33.9	-0.1	10	-0.55
ECO_B_10	SAC North Downs Woodlands#2	10	32.9	32.8	0.0	10	-0.26
ECO_B_20	SAC North Downs Woodlands#2	20	32.4	32.4	0.0	10	-0.12
ECO_B_30	SAC North Downs Woodlands#2	30	32.2	32.2	0.0	10	-0.09
ECO_B_40	SAC North Downs Woodlands#2	40	32.1	32.1	0.0	10	-0.06
ECO_B_50	SAC North Downs Woodlands#2	50	32.0	32.0	0.0	10	-0.06
ECO_B_60	SAC North Downs Woodlands#2	60	31.9	31.9	0.0	10	-0.06
ECO_B_70	SAC North Downs Woodlands#2	70	31.9	31.9	0.0	10	-0.03
ECO_B_80	SAC North Downs Woodlands#2	80	31.8	31.8	0.0	10	-0.06
ECO_B_90	SAC North Downs Woodlands#2	90	31.8	31.8	0.0	10	-0.03
ECO_B_100	SAC North Downs Woodlands#2	100	31.8	31.8	0.0	10	-0.03
ECO_B_110	SAC North Downs Woodlands#2	110	31.5	31.5	0.0	10	-0.06
ECO_B_120	SAC North Downs Woodlands#2	120	31.5	31.5	0.0	10	-0.03
ECO_B_130	SAC North Downs Woodlands#2	130	31.5	31.5	0.0	10	-0.03

Receptor	Ecological Transect	Minimum Distance to Road (m)	Total Nitrogen Deposition Rate 2037 (Maximum) (kg N/ha/yr)		Change in Nitrogen Deposition (DS-DN) (kg N/ha/yr)	Site Relevant Critical Load (kg N/ha/yr)	Change in Nitrogen Deposition in Relation to Lower Critical Load (%)
			DN	DS			
ECO_B_140	SAC North Downs Woodlands#2	140	31.5	31.5	0.0	10	-0.03
ECO_B_150	SAC North Downs Woodlands#2	150	31.5	31.5	0.0	10	-0.03
ECO_B_160	SAC North Downs Woodlands#2	160	31.5	31.5	0.0	10	-0.03
ECO_B_170	SAC North Downs Woodlands#2	170	31.4	31.4	0.0	10	-0.06
ECO_B_180	SAC North Downs Woodlands#2	180	31.4	31.4	0.0	10	-0.03
ECO_B_190	SAC North Downs Woodlands#2	190	31.4	31.4	0.0	10	-0.03
ECO_B_200	SAC North Downs Woodlands#2	200	31.4	31.4	0.0	10	-0.03
ECO_C_2	SAC North Downs Woodlands#3	2	32.8	32.8	0.0	10	-0.09
ECO_C_10	SAC North Downs Woodlands#3	10	32.2	32.2	0.0	10	-0.06
ECO_C_20	SAC North Downs Woodlands#3	20	32.0	32.0	0.0	10	-0.03
ECO_C_30	SAC North Downs Woodlands#3	30	31.9	31.9	0.0	10	-0.06
ECO_C_40	SAC North Downs Woodlands#3	40	31.8	31.8	0.0	10	-0.03
ECO_C_50	SAC North Downs Woodlands#3	50	31.8	31.8	0.0	10	-0.03
ECO_C_60	SAC North Downs Woodlands#3	60	31.8	31.8	0.0	10	-0.03
ECO_C_70	SAC North Downs Woodlands#3	70	31.7	31.7	0.0	10	-0.03
ECO_C_80	SAC North Downs Woodlands#3	80	31.7	31.7	0.0	10	0.00
ECO_C_90	SAC North Downs Woodlands#3	90	31.7	31.7	0.0	10	0.00
ECO_C_100	SAC North Downs Woodlands#3	100	31.7	31.7	0.0	10	-0.03
ECO_C_110	SAC North Downs Woodlands#3	110	31.7	31.7	0.0	10	0.00

Receptor	Ecological Transect	Minimum Distance to Road (m)	Total Nitrogen Deposition Rate 2037 (Maximum) (kg N/ha/yr)		Change in Nitrogen Deposition (DS-DN) (kg N/ha/yr)	Site Relevant Critical Load (kg N/ha/yr)	Change in Nitrogen Deposition in Relation to Lower Critical Load (%)
			DN	DS			
ECO_C_120	SAC North Downs Woodlands#3	120	31.7	31.7	0.0	10	-0.03
ECO_C_130	SAC North Downs Woodlands#3	130	31.7	31.7	0.0	10	-0.03
ECO_C_140	SAC North Downs Woodlands#3	140	31.7	31.7	0.0	10	0.00
ECO_C_150	SAC North Downs Woodlands#3	150	31.7	31.7	0.0	10	-0.03
ECO_C_160	SAC North Downs Woodlands#3	160	31.7	31.7	0.0	10	0.00
ECO_C_170	SAC North Downs Woodlands#3	170	31.7	31.7	0.0	10	0.00
ECO_C_180	SAC North Downs Woodlands#3	180	31.7	31.7	0.0	10	-0.03
ECO_C_190	SAC North Downs Woodlands#3	190	31.7	31.7	0.0	10	0.00
ECO_C_200	SAC North Downs Woodlands#3	200	31.7	31.7	0.0	10	0.00
ECO_D_2	SAC North Downs Woodlands#4	2	34.4	34.3	-0.1	10	-0.95
ECO_D_10	SAC North Downs Woodlands#4	10	33.7	33.6	-0.1	10	-0.60
ECO_D_20	SAC North Downs Woodlands#4	20	33.1	33.1	0.0	10	-0.40
ECO_D_30	SAC North Downs Woodlands#4	30	32.8	32.7	0.0	10	-0.29
ECO_D_40	SAC North Downs Woodlands#4	40	32.5	32.5	0.0	10	-0.17
ECO_D_50	SAC North Downs Woodlands#4	50	32.4	32.3	0.0	10	-0.14
ECO_D_60	SAC North Downs Woodlands#4	60	32.2	32.2	0.0	10	-0.12
ECO_D_70	SAC North Downs Woodlands#4	70	32.1	32.1	0.0	10	-0.06
ECO_D_80	SAC North Downs Woodlands#4	80	32.0	32.0	0.0	10	-0.06
ECO_D_90	SAC North Downs Woodlands#4	90	31.9	31.9	0.0	10	-0.03

Receptor	Ecological Transect	Minimum Distance to Road (m)	Total Nitrogen Deposition Rate 2037 (Maximum) (kg N/ha/yr)		Change in Nitrogen Deposition (DS-DN) (kg N/ha/yr)	Site Relevant Critical Load (kg N/ha/yr)	Change in Nitrogen Deposition in Relation to Lower Critical Load (%)
			DN	DS			
ECO_D_100	SAC North Downs Woodlands#4	100	31.9	31.8	0.0	10	-0.06
ECO_D_110	SAC North Downs Woodlands#4	110	31.8	31.8	0.0	10	-0.06
ECO_D_120	SAC North Downs Woodlands#4	120	31.7	31.7	0.0	10	-0.03
ECO_D_130	SAC North Downs Woodlands#4	130	31.7	31.7	0.0	10	-0.03
ECO_D_140	SAC North Downs Woodlands#4	140	31.7	31.7	0.0	10	-0.03
ECO_D_150	SAC North Downs Woodlands#4	150	31.6	31.6	0.0	10	-0.03
ECO_D_160	SAC North Downs Woodlands#4	160	31.6	31.6	0.0	10	-0.03
ECO_D_170	SAC North Downs Woodlands#4	170	31.6	31.6	0.0	10	0.00
ECO_D_180	SAC North Downs Woodlands#4	180	31.5	31.5	0.0	10	-0.03

Appendix C. Plans and projects included within the 2037 DN-DS (in-combination) traffic data

Development Description	Residential Units	Employment, Floorspace, sqm
H1(1) - Bridge Nursery, London Road, Maidstone	140	0
H1(2) - East of Hermitage Lane, Maidstone	500	0
H1(3) - West of Hermitage Lane, Maidstone	330	0
H1(4) - Oakapple Lane, Barming	187	0
H1(5) - Langley Park, Sutton Road, Boughton Monchelsea	600	0
H1(6) - North of Sutton Road, Otham	286	0
H1(7) - North of Bicknor Wood, Gore Court Road, Otham	250	0
H1(8) - West of Church Road, Otham	440	0
H1(9) - Bicknor Farm, Sutton Road, Otham	302	0
H1(10) - South of Sutton Road, Langley	750	0
H1(11) - Springfield, Royal Engineers Road and Mill Lane, Maidstone	400	0
H1(21) - Barty Farm, Roundwell, Thurnham	100	0
H1(27) - Kent Police HQ, Sutton Road, Maidstone	112	0
H1(28) - Kent Police training school, Sutton Road, Maidstone	90	0
RMX1(1) - Newnham Park, Bearsted Road, Maidstone	0	100,000
RMX1(2) - Maidstone East and Sorting Office, Sandling Road, Maidstone	210	14,000
H1(32) - South of Ashford Road, Harrietsham	113	0
H1(34) - Church Road, Harrietsham	80	0
H1(36) - Ulcombe Road and Mill Bank, Headcorn	220	0
H1(37) - Grigg Lane and Lenham Road, Headcorn	86	0
H1(41) - Tanyard Farm, Old Ashford Road, Lenham	145	0
H1(44) - Stanley Farm, Plain Road, Marden	85	0
H1(45) - The Parsonage, Goudhurst Road, Marden	144	0
H1(46) - Marden Cricket and Hockey Club, Stanley Road, Marden	124	0
H1(48) - Hen and Duckhurst Farm, Marden Road, Staplehurst	250	0
H1(49) - Fishers Farm, Fishers Road, Staplehurst	400	0
H1(57) - Heathfield, Heath Road, Coxheath	110	0
H1(58) - Forstal Lane, Coxheath	210	0
H2(1) - Maidstone town centre	940	0
H2(2) - Invicta Park barracks	1,300	0
H2(3) - Lenham	1,000	0
EMP1(1) - West of Barradale Farm, Maidstone Road, Headcorn	0	5,500
EMP1(2) - South of Claygate, Pattenden Lane, Marden	0	6,800

Development Description	Residential Units	Employment, Floorspace, sqm
EMP1(3) - West of Wheelbarrow Industrial Estate, Pattenden Lane, Marden	0	14,500
EMP1(4) - Woodcut Farm, Ashford Road, Bearsted	0	49,000
Lyewood Farm, Boughton Monchelsea - H1(54)	85	0
Sygenta, Yalding	0	46,000
Gleaming Wood Drive, Lordswood	115	0
Mote Road, Town Centre	172	1,169
Ashford Road, Lenham, Lenham	0	2,500
Lidsing, Garden Settlement	1,300	44,100
Heathlands, Garden Settlement	1,400	19,110
The Mall, Town Centre	400	0
Office to Resi, Town Centre	247	0
Maidstone Riverside, Town Centre	650	0
Len House, Town Centre	159	0
Gala Bingo, Town Centre	40	0
Maidstone West, Town Centre	130	0
Residual from the 700, Town Centre	215	0
PP 2021/22, Maidstone Borough	603	0
Windfall Small, Maidstone Borough	1,380	0
Windfall Large, Maidstone Borough	1,358	0
High St/ Medway St (Additional), Town Centre	10	0
Maidstone East (Additional), Town Centre	80	0
Springfield Tower, Urban Area	150	0
Royal British Legion, Urban Area	8	0
EIS Oxford Rd, Urban Area	20	0
Ware St, Urban Area (N)	67	0
Abbey Gate Farm, Urban Area (SW)	250	0
Pested Bars, Urban Area (S)	196	0
Police HQ Land (Additional), Urban Area (SE)	135	0
Land at Sutton Rd, Urban Area (SE)	75	0
Moat Rd, Headcorn	110	0
Copper Ln & Albion Rd, Marden	113	0
Lodge Rd, Staplehurst	78	0
Home Farm, Staplehurst	49	0
Land S of A20, Harrietsham	53	0
Keilen Manor, Harrietsham	47	0
Eyhorne St, Hollingbourne	9	0

Development Description	Residential Units	Employment, Floorspace, sqm
Kenward Rd, Yalding	100	0
Haven Farm et al, Sutton Valence	100	0
Land N of Heath Rd (Guy's site), Coxheath	85	0
Kent Ambulance HQ, Coxheath	10	0
Land at Heath Rd, Coxheath	5	0
Campfield Farm, Boughton Mon	30	0
Broad Location, East Farleigh	50	0
Broad Location, Ulcombe	35	0
Broad Location, Laddingford	35	0
Broad Location, Kingswood	35	0
Broad Location, Teston	35	0
Broad Location, Boxley	25	0
Broad Location, Chart Sutton	25	0
Broad Location, Detling	25	0
Broad Location, Grafty Green	25	0
Broad Location, Hunton	25	0
Broad Location, Platts Heath	25	0
Broad Location, Stockbury	25	0
Mote Road, Town Centre	172	1,169

Maidstone Local Plan Air Quality HRA Mitigation

Document no: 1.0
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Kent County Council and Maidstone Borough Council

Air Quality HRA Mitigation Technical Note
5 September 2023

Maidstone Local Plan Air Quality HRA Mitigation

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Appendices

Limitation Statement

This document has been prepared on behalf of, and for the exclusive use of, Maidstone Borough Council and Kent County Council and is subject to, and issued in accordance with, provisions of the contract between Jacobs and the client. The report should be read in full with no excerpts out of context deemed to be representative of the report and its findings as a whole. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this document by any third party.

1. Introduction

1.1 Overview

Maidstone Borough Council (MBC) and Kent County Council (KCC) are undertaking a Local Plan Review (LP) for MBC to address the latest Government standard methodology for calculating authorities future housing numbers and to extend the Maidstone Local Plan period to at least 2037. The LPR sets out a new spatial strategy and policy framework to meet the Borough's future development needs, and to ensure that growth is sustainably managed.

For the LPR to be formally adopted by the Council it must meet the 'tests of soundness' set out in the National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2021). To help demonstrate the plan's soundness, MBC has prepared an extensive evidence base covering a range of policy topic areas.

In the recent Maidstone Air Quality HRA Technical Note (Jacobs, 2023a), within the Do Minimum (DM)-Do Something (DS) scenario (LP alone), the results highlighted increases in nitrogen-related emissions and associated nitrogen deposition on the North Downs Woodland Special Area of Conservation (SAC), particularly close to Boxley Road, as presented in Appendix A. A competent expert for biodiversity (SES, 2023) has undertaken a survey to determine whether the likely significance of impacts could impact qualifying features of the SAC.

Based on the survey results obtained, adverse impacts from increased nitrogen deposition on the qualifying woodland features of the SAC cannot be ruled out. MBC have therefore identified a package of potential mitigation measures for further consideration.

1.2 Purpose of this Document

This study builds upon a previous 'Stage 1' initial high level review of the technical feasibility of implementing these mitigation measures (Jacobs, 2023b), with a 'Stage 2' assessment, that provides quantifiable data to assist with the assessment of air quality impacts.

This technical note describes the results of the detailed air quality assessment relating to the proposed mitigation measure- traffic calming/restrictions on trips to/from Lidsing Garden Settlement to Boxley Road/Lidsing Road. More information can be found in the next section of this report.

This scenario also use Department for Transport (DfT) TAG electric/petrol/diesel vehicle fleet splits (DfT, 2023), which provide a greater optimistic outlook in terms of future adoption of electric vehicles, as opposed to the Defra Emission Factor Toolkit (Defra, 2021).

The DS has been compared to the DM, to estimate the LP alone impact.

It should be noted that this report is an interim version and will be updated should additional mitigation measures be confirmed and assessed.

2. Assessment Methodology, Assumptions and Limitations

2.1 Guidance

The assessment of air quality has been completed using the following guidance:

- Design Manual for Roads and Bridges (DMRB) LA 105 Air Quality (Highways England, 2019)
- Local Air Quality Management Technical Guidance (LAQM TG (22)) (Defra, 2022)
- Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitat Regulations (Natural England, 2018)
- Institute of Air Quality Management - A guide to the assessment of air quality impacts on designated nature conservation sites (IAQM, 2020)

2.2 Assessment Scenarios

The following scenarios were considered in this assessment:

- The Do-Minimum (DM) scenario in the forecast year (2037) as detailed within the Maidstone Air Quality HRA Technical Note (Jacobs, 2023a).
- The Do-Something (DS) scenario with traffic calming measures in the proposed implementation year (2037) which includes the following transport modelling approach and assumptions:
  a. This scenario assessed the impacts of restricting the trips to/from Lidsing Garden Settlement via Boxley Road/Lidsing Road. It was based on the access strategy arrangement and traffic calming measures discussed in the ED93 Lidsing Technical Note on Indicative Phasing and Mitigation (Charles & Associates 2023) . The proposed access arrangements connect the development traffic directly to the new link road and M2 J4 which is assumed to be the main route of choice to/from Lidsing Garden Settlement.

  b. In addition, the Technical Note – Rural Lane Interventions by the Lidsing promoter includes the following traffic calming measures in Bredhurst and Boxley. Although these cannot be modelled directly into the strategic model, it is believed that these will result in making Boxley Road/ Lidsing Road and other rural roads in the areas less attractive. Therefore, diverting the traffic to use the new link road.
     - Horizontal Deflections - a form of traffic calming which force drivers to be deflected from their normal path, either resulting in slowing or, where these measures introduce conflict with approaching vehicles, require vehicles to stop and give-way. For example, the geometry of The Street is generally straight with a slight curve before merging into Dunn St Road therefore a moderate intervention such as road narrowing could be provided. Other horizontal deflection options can include build-outs which create a chicane arrangement significantly reducing vehicle speeds; and pedestrian refuge islands creating an uncontrolled crossing.
     - Vertical Deflections – include narrow speed bumps and introduction of raised tables. These measures reinforce the need to slow and when implemented in a 'place making' form, can provide strong incentive to use routes, with drivers being made to feel less welcome and comfortable.
     - Changes in Junction Arrangement and Placemaking - the junctions could be reconfigured to change priority arrangements to make through movements a disadvantage; or there is scope to introduce roundabouts which present uncertainty of priority and again reduce perception of an unconstrained corridor.
     - Traffic Filtering - more aggressive interventions can also be introduced throughout the village of Bredhurst with the possibility of traffic filters or road closures. Traffic filters are intended to reduce traffic levels by reducing the number of unnecessary journeys by car. Filtering of vehicular traffic could use similar arrangements as applied in Low Traffic Neighbourhoods, with planters removing vehicles from using the road, instead prioritising walking and cycling.

c. In order to represent the above measures, restrictions on the trips to/from Lidsing Garden Settlement via Boxley Road / Lidsing Road were implemented into the model.

2.3 Study Area

The study area contained the Affected Road Network (ARN) surrounding the North Downs Woodland SAC as considered within the Maidstone Air Quality HRA Technical Note (Jacobs, 2023a), which is shown in Appendix A.

2.4 Sensitive Receptors

The ecological receptors as set out within Maidstone Air Quality HRA Technical Note (Jacobs, 2023a) were included in the air quality assessment. Transects for each of the designated ecological receptors are shown in Appendix A.

2.5 Summary of Methodology

The methodology set out in Maidstone Air Quality HRA Technical Note (Jacobs, 2023a) was followed to assess nitrogen deposition at the North Downs Woodland SAC. However, DfT TAG electric vehicle fleet splits (DfT, 2023) have been incorporated into this assessment for the estimation of vehicle emissions.

The detailed assessment of potential air quality effects has been undertaken using the Atmospheric Dispersion Modelling System (ADMS-Roads). It is a system that focuses on road traffic as a source of pollutant emissions and is a recognised tool for carrying out air quality impact assessments. Version 5.0.1.3 (January 2022) was used for this assessment.

Model verification adjustment factors for NOx were applied to the air quality modelling results. Model verification was not updated for the use of DfT TAG emissions data as the electric vehicle fleet mixes used are for projected years (2037) and not a base year as is used within model verification. As such, the model verification factors applied to the results were taken from the Maidstone LP Review Stage 2 Report (Jacobs 2021). Model verification and adjustment is not discussed further in this assessment.

2.6 Magnitude and Significance

The predicted changes in nitrogen deposition were used to identify the potential for significant effects to occur at the habitat. With regard to nitrogen deposition, critical loads for designated ecological habitats in the UK have been published by the Centre for Ecology and Hydrology and were obtained from the Air Pollution Information System (APIS) website (Centre for Ecology and Hydrology, 2023).

Nitrogen deposition rates were updated on the APIS website in July 2023. Therefore, the nitrogen deposition rates utilised in the mitigation measures scenario have been updated to reflect the updated nitrogen deposition rates.

DMRB LA 105 (Highways England, 2019) states that if the change in nitrogen deposition is greater than 1% of the lower critical load and the total deposition is greater than the lower critical load, then there is a potential impact. If this is the case , the information should be reviewed by the project ecologists to determine their significance.

2.7 Assumptions and Limitations

The assessment provided within this technical note is based on information available at the time of writing.

As with any computer model that seeks to predict future conditions, there is uncertainty in the predictions made. Whilst being the best predictions available, elements of impact prediction such as the specific concentration of a pollutant at a given receptor are not precise and are always subject to a margin of error. These errors have been minimised and where necessary a cautious approach has been used.

Based on IAQM guidance (IAQM 2020), receptor points along each transect started at 2m from the nearest road edge to the North Downs Woodland SAC.

It is recognised that KCC and National Highways will not be in a position to endorse the proposed traffic calming at this stage as the wider impacts for such an intervention remain unknown , including assessment of the impact at key junctions. A sensitivity modelling test should be run at the next stage of assessment e.g. at the Supplementary Planning Document and/or planning application stage.

3. Air Quality Assessment Results

3.1 Traffic restrictions on Boxley/Lidsing Road

HRA Assessment

In order to provide an indication of whether the mitigation measure (traffic calming/restrictions on the trips to/from Lidsing Garden Settlement via Boxley Road and Lidsing Road) has the potential to impact nitrogen deposition, the change in nitrogen deposition has been estimated at the closest point within the SAC (or at 2m if appropriate) and compared to the lowest critical load for the Designated Site. Where the change in nitrogen deposition (PC) is estimated to be >1% of the lowest possible critical load, this has been used to indicate where changes in nitrogen deposition have the potential to affect the SAC. Likewise, where changes in nitrogen deposition are estimated to be less than this amount, then it has been assumed that any resulting impacts are unlikely to be significant.

A summary of the results of this assessment for DM-DS (LP alone impacts) are provided in Table 1-1 for the ecological receptors at the closest point within the SAC to the ARN and the full deposition results at each transect point are provided in Appendix B.

The results in Table 1-1 indicate that changes in emissions from road traffic associated with the proposed mitigation are less than 1% of the relevant critical loads for nitrogen deposition. Therefore, the mitigation measure (traffic calming/restrictions on the trips to/from Lidsing Garden Settlement via Boxley Road and Lidsing Road) is not considered to result in significant adverse effects at these locations.

The results mentioned above are due to the reduction of traffic on Boxley Road/Lidsing Road as a result of the restrictions implemented on the trips to/from Lidsing Garden Settlement in using these roads. This also resulted in traffic rerouting mainly on the A229, however, this did not trigger any exceedances greater than 1%.

The effectiveness of this measure will require both MBC and Lidsing Garden Settlement to develop a plan in implementing and managing the traffic calming measures highlighted in Section 2.2 of this report to ensure that the increase in traffic is kept at a level that does not result in an adverse impact on the integrity of the SAC owing to nitrogen deposition.

Informed by the Habitats Regulations Assessment, further Main Modifications are proposed to the Local Plan Review relevant to North Downs Woodlands SAC. The modifications set policy requirements to ensure that the impacts of new development on the SAC are carefully considered and assessed throughout the planning and development process, including provisions for any necessary and appropriate air pollution mitigation measures.

In particular, the Main Modifications require that further detailed assessments of new development on the SAC, together with necessary air pollution mitigation measures at the Lidsing garden community, be undertaken as part of the preparation of a Supplementary Planning Document (to be developed and adopted by MBC) for the garden community and also at the planning application stage.

The Local Plan Review policies and planning guidance will be a material consideration in the determination of future planning applications and will help to ensure that the impacts of new development do not result in potential significant adverse effects on the integrity of the North Downs Woodlands SAC, including through the delivery of mitigation measures where necessary and appropriate.

Table 1-1: Modelled air quality nitrogen deposition at select (worst-case) designated habitat receptors in 2037, between the DM and DS (LP alone) scenario

Receptor	Ecological Transect	Minimum Distance to Road (m)	Total Nitrogen Deposition Rate 2037 (Maximum) (kg N/ha/yr)		Change in Nitrogen Deposition (DS-DM) (kg N/ha/yr)	Site Relevant Critical Load (kg N/ha/yr)	Change in Nitrogen Deposition in Relation to Lower Critical Load (%)
			DM	DS			
ECO_A_2	SAC North Downs Woodlands#1	163.5	25.8	25.8	0.01	10	0.06
ECO_B_2	SAC North Downs Woodlands#2	2.0	26.6	26.7	0.05	10	0.55
ECO_C_2	SAC North Downs Woodlands#3	2.0	26.0	26.0	0.02	10	0.23
ECO_D_2	SAC North Downs Woodlands#4	2.0	27.4	27.4	0.01	10	0.09

4. Conclusions

Detailed air dispersion modelling has been undertaken to predict changes in air quality at ecological receptors within the North Downs SAC. The assessment took into account of APIS background deposition rates to provide predicted nitrogen deposition rates in the North Downs Woodland SAC.

4.1 Traffic restrictions on Boxley/Lidsing Road

There are no potential significant effects modelled for the DM-DS (LP alone) in 2037.

The effectiveness of this measure will require both MBC and Lidsing Garden Settlement to develop a plan in implementing and managing the traffic calming measures highlighted in Section 2.2 of this report to ensure that the increase in traffic is kept at a level that does not result in an adverse impact on the integrity of the SAC owing to nitrogen deposition.

Informed by the Habitats Regulations Assessment, further Main Modifications are proposed to the Local Plan Review relevant to North Downs Woodlands SAC. The modifications set policy requirements to ensure that the impacts of new development on the SAC are carefully considered and assessed throughout the planning and development process, including provisions of any necessary and appropriate air pollution mitigation measures.

In particular, the Main Modifications require that further detailed assessments of new development on the SAC, together with necessary air pollution mitigation measures at the Lidsing garden community, be undertaken as part of the preparation of a Supplementary Planning Document (to be developed and adopted by MBC) for the garden community and also at the planning application stage.

The Local Plan Review policies and planning guidance will be a material consideration in the determination of future planning applications and will help to ensure that the impacts of new development do not result in potential significant adverse effects on the integrity of the North Downs Woodlands SAC, including through the delivery of mitigation measures where necessary and appropriate.

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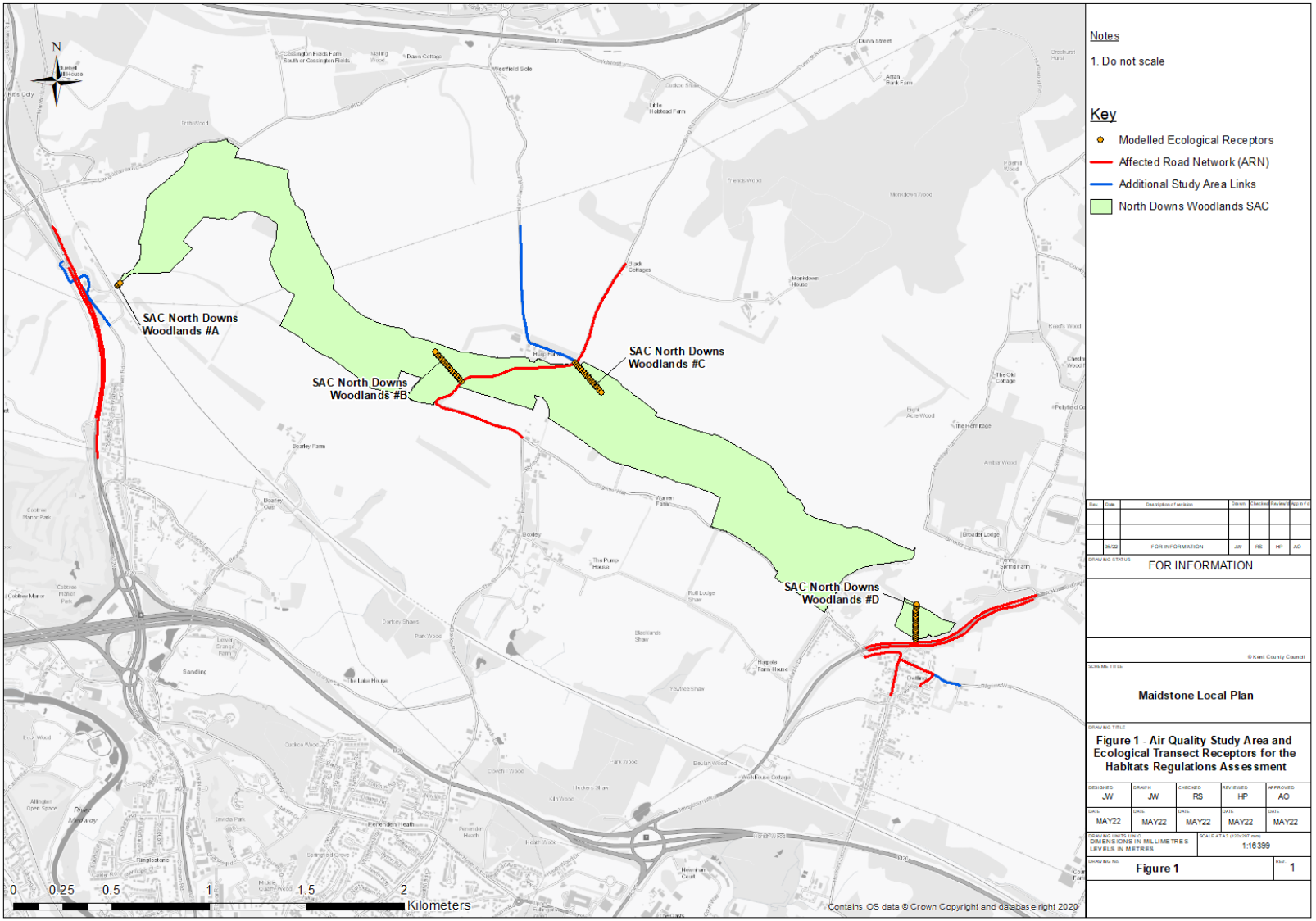
Appendix A. Figures

Figure 1: Air Quality Study Area and Ecological Transect Receptors



Appendix B. DM-DS (LP alone) Mitigation Results

Table 1-2: Modelled air quality designated habitat receptors for nitrogen deposition in 2037, for the DM-DS (LP alone) Mitigation

Receptor	Ecological Transect	Minimum Distance to Road (m)	Total Nitrogen Deposition Rate 2037 (Maximum) kg N/ha/yr		Change in Nitrogen Deposition (DS-DM) (kg n/ha/yr)	Site Relevant Critical Load (kg N/ha/yr)	Change in Nitrogen Deposition in Relation to Lower Critical Load (%)
			DM	DS			
ECO_A_2	SAC North Downs Woodlands#1	163.5	25.8	25.8	0.01	10	0.06
ECO_A_10	SAC North Downs Woodlands#1	171.5	25.8	25.8	0.01	10	0.06
ECO_A_20	SAC North Downs Woodlands#1	181.5	25.8	25.8	<0.01	10	0.03
ECO_B_2	SAC North Downs Woodlands#2	2.0	26.6	26.7	0.05	10	0.55
ECO_B_10	SAC North Downs Woodlands#2	10.0	26.0	26.0	0.03	10	0.29
ECO_B_20	SAC North Downs Woodlands#2	20.0	25.8	25.8	0.01	10	0.14
ECO_B_30	SAC North Downs Woodlands#2	30.0	25.7	25.7	0.01	10	0.12
ECO_B_40	SAC North Downs Woodlands#2	40.0	25.6	25.6	0.01	10	0.09
ECO_B_50	SAC North Downs Woodlands#2	50.0	25.6	25.6	0.01	10	0.06
ECO_B_60	SAC North Downs Woodlands#2	60.0	25.5	25.5	0.01	10	0.06
ECO_B_70	SAC North Downs Woodlands#2	70.0	25.5	25.5	0.01	10	0.06
ECO_B_80	SAC North Downs Woodlands#2	80.0	25.5	25.5	<0.01	10	0.03
ECO_B_90	SAC North Downs Woodlands#2	90.0	25.5	25.5	<0.01	10	0.03
ECO_B_100	SAC North Downs Woodlands#2	100.0	25.5	25.5	<0.01	10	0.03
ECO_B_110	SAC North Downs Woodlands#2	110.0	25.3	25.3	<0.01	10	0.03
ECO_B_120	SAC North Downs Woodlands#2	120.0	25.3	25.3	<0.01	10	0.03
ECO_B_130	SAC North Downs Woodlands#2	130.0	25.3	25.3	<0.01	10	0.03
ECO_B_140	SAC North Downs Woodlands#2	140.0	25.3	25.3	<0.01	10	0.03
ECO_B_150	SAC North Downs Woodlands#2	150.0	25.3	25.3	<0.01	10	<0.01
ECO_B_160	SAC North Downs Woodlands#2	160.0	25.3	25.3	<0.01	10	0.03
ECO_B_170	SAC North Downs Woodlands#2	170.0	25.3	25.3	<0.01	10	<0.01
ECO_B_180	SAC North Downs Woodlands#2	180.0	25.3	25.3	<0.01	10	<0.01
ECO_B_190	SAC North Downs Woodlands#2	190.0	25.3	25.3	<0.01	10	<0.01

Receptor	Ecological Transect	Minimum Distance to Road (m)	Total Nitrogen Deposition Rate 2037 (Maximum) kg N/ha/yr		Change in Nitrogen Deposition (DS-DM) (kg n/ha/yr)	Site Relevant Critical Load (kg N/ha/yr)	Change in Nitrogen Deposition in Relation to Lower Critical Load (%)
			DM	DS			
ECO_B_200	SAC North Downs Woodlands#2	200.0	25.3	25.3	<0.01	10	<0.01
ECO_C_2	SAC North Downs Woodlands#3	2.0	26.0	26.0	0.02	10	0.23
ECO_C_10	SAC North Downs Woodlands#3	10.0	25.7	25.7	0.01	10	0.09
ECO_C_20	SAC North Downs Woodlands#3	20.0	25.6	25.6	0.01	10	0.06
ECO_C_30	SAC North Downs Woodlands#3	30.0	25.5	25.5	<0.01	10	0.03
ECO_C_40	SAC North Downs Woodlands#3	40.0	25.5	25.5	<0.01	10	0.03
ECO_C_50	SAC North Downs Woodlands#3	50.0	25.5	25.5	<0.01	10	<0.01
ECO_C_60	SAC North Downs Woodlands#3	60.0	25.4	25.5	<0.01	10	0.03
ECO_C_70	SAC North Downs Woodlands#3	70.0	25.4	25.4	<0.01	10	<0.01
ECO_C_80	SAC North Downs Woodlands#3	80.0	25.4	25.4	<0.01	10	0.03
ECO_C_90	SAC North Downs Woodlands#3	90.0	25.4	25.4	<0.01	10	<0.01
ECO_C_100	SAC North Downs Woodlands#3	100.0	25.4	25.4	<0.01	10	<0.01
ECO_C_110	SAC North Downs Woodlands#3	110.0	25.4	25.4	<0.01	10	<0.01
ECO_C_120	SAC North Downs Woodlands#3	120.0	25.4	25.4	<0.01	10	<0.01
ECO_C_130	SAC North Downs Woodlands#3	130.0	25.4	25.4	<0.01	10	<0.01
ECO_C_140	SAC North Downs Woodlands#3	140.0	25.4	25.4	<0.01	10	<0.01
ECO_C_150	SAC North Downs Woodlands#3	150.0	25.4	25.4	<0.01	10	0.03
ECO_C_160	SAC North Downs Woodlands#3	160.0	25.4	25.4	<0.01	10	<0.01
ECO_C_170	SAC North Downs Woodlands#3	170.0	25.4	25.4	<0.01	10	<0.01
ECO_C_180	SAC North Downs Woodlands#3	180.0	25.4	25.4	<0.01	10	<0.01
ECO_C_190	SAC North Downs Woodlands#3	190.0	25.4	25.4	<0.01	10	<0.01
ECO_C_200	SAC North Downs Woodlands#3	200.0	25.4	25.4	<0.01	10	<0.01
ECO_D_2	SAC North Downs Woodlands#4	2.0	27.4	27.4	0.01	10	0.09
ECO_D_10	SAC North Downs Woodlands#4	10.0	26.9	27.0	0.01	10	0.06

Receptor	Ecological Transect	Minimum Distance to Road (m)	Total Nitrogen Deposition Rate 2037 (Maximum) kg N/ha/yr		Change in Nitrogen Deposition (DS-DM) (kg n/ha/yr)	Site Relevant Critical Load (kg N/ha/yr)	Change in Nitrogen Deposition in Relation to Lower Critical Load (%)
			DM	DS			
ECO_D_20	SAC North Downs Woodlands#4	20.0	26.6	26.6	<0.01	10	0.03
ECO_D_30	SAC North Downs Woodlands#4	30.0	26.4	26.4	<0.01	10	0.03
ECO_D_40	SAC North Downs Woodlands#4	40.0	26.2	26.2	<0.01	10	0.03
ECO_D_50	SAC North Downs Woodlands#4	50.0	26.1	26.1	<0.01	10	0.03
ECO_D_60	SAC North Downs Woodlands#4	60.0	26.0	26.0	<0.01	10	0.03
ECO_D_70	SAC North Downs Woodlands#4	70.0	25.9	25.9	<0.01	10	0.03
ECO_D_80	SAC North Downs Woodlands#4	80.0	25.9	25.9	<0.01	10	<0.01
ECO_D_90	SAC North Downs Woodlands#4	90.0	25.8	25.8	<0.01	10	<0.01
ECO_D_100	SAC North Downs Woodlands#4	100.0	25.8	25.8	<0.01	10	<0.01
ECO_D_110	SAC North Downs Woodlands#4	110.0	25.8	25.8	<0.01	10	0.03
ECO_D_120	SAC North Downs Woodlands#4	120.0	25.7	25.7	<0.01	10	0.03
ECO_D_130	SAC North Downs Woodlands#4	130.0	25.7	25.7	<0.01	10	0.03
ECO_D_140	SAC North Downs Woodlands#4	140.0	25.7	25.7	<0.01	10	<0.01
ECO_D_150	SAC North Downs Woodlands#4	150.0	25.6	25.6	<0.01	10	<0.01
ECO_D_160	SAC North Downs Woodlands#4	160.0	25.6	25.6	<0.01	10	<0.01
ECO_D_170	SAC North Downs Woodlands#4	170.0	25.6	25.6	<0.01	10	0.03
ECO_D_180	SAC North Downs Woodlands#4	180.0	25.6	25.6	<0.01	10	<0.01

NVC Survey Report

North Downs Woodland SAC, Kent

On Behalf of:

FD Attwood and Partners

July 2023

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SES Quality Management

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Revision Number	B

Revision	Status	Date	Author(s)	Technical review by	Quality review by
A	Issue	19/06/2023	Molly Dailide MCIEEM	Vicky Cheung (Senior Ecologist)	Sean Crossland CEcol MCIEEM (Technical Director)
B	Draft	07/07/2023	Molly Dailide MCIEEM	Vicky Cheung (Senior Ecologist)	Sean Crossland CEcol MCIEEM (Technical Director)
B	Issue	11/07/2023	Molly Dailide MCIEEM	Vicky Cheung (Senior Ecologist)	Sean Crossland CEcol MCIEEM (Technical Director)

Disclaimer

Contents

Appendices

Executive Summary

1. Southern Ecological Solutions Ltd. (SES) was commissioned by FD Attwood and Partners to undertake a National Vegetation Classification (NVC) survey of two areas within the North Downs Woodlands Special Area of Conservation (SAC), located to the north of Boxley, Kent.

2. The survey was required in order to determine whether the 2037 Maidstone Local Plan Review and subsequent predicted increases from vehicle pollution along Lidsing Road could impact qualifying features of the SAC.

3. A detailed air quality impact assessment of the 2037 Maidstone Local Plan Review (Jacobs, 2023) identified two transects along the Lidsing Road where nitrogen deposition increases were modelled to exceed 1% of the site relevant critical loads. An NVC survey was carried out on the two transects to determine the woodland vegetation present and whether the habitats present comprised the qualifying features of the SAC.

4. The survey followed the NVC sampling methodology and classification system, with the Survey Areas covering 0-20m and 0-10m from the road for Transects B and C respectively. A width of 50m was surveyed for the canopy vegetation and c. 10-20m for ground flora.

5. The habitats present at 0-20m along Transect B were not able to be sampled in accordance with the NVC survey methodology due to significant physical access constraints, however, the vegetation present was visible from the surrounding locality with both yew and beech trees present within and adjacent to the survey area. It is assumed that the qualifying woodland features of the SAC (*Asperulo-Fagetum* beech forests and Yew *Taxus baccata* woods of the British Isles) are present along this transect and thus within the impact zone.

6. The habitats present at 0-10m along Transect C were sampled and subject to NVC survey and analysis and were determined to match most closely with NVC woodland community W10a *Quercus robur - Pteridium aquilinum - Rubus fruticosus* woodland (typical sub-community). When compared to the applicable NVC woodland communities of the qualifying woodland features, the woodland within Survey Area C did not correspond.

7. Therefore, with the site relevant critical loads of nitrogen deposition modelled to be exceeded at both 2.0m and 10.1m from the road (Transect B) and the qualifying woodland features present within the impact zone, adverse impacts from increased nitrogen deposition cannot be ruled out.

8. Based on the results obtained, adverse impacts from increased nitrogen deposition on the qualifying woodland features of the SAC cannot be ruled out.

1.0 Introduction

1.1 Southern Ecological Solutions Ltd. (SES) was commissioned by FD Attwood and Partners (the client) to undertake a National Vegetation Classification (NVC) survey of two areas within the North Downs Woodlands Special Area of Conservation (SAC), located to the north of Boxley, Kent.

1.2 The survey was required in order to determine whether the 2037 Maidstone Local Plan (LP) Review and subsequent predicted increases from vehicle pollution along Lidsing Road could impact qualifying features of the SAC.

1.3 A previous walk-over survey was undertaken in November 2022 across three survey areas within the SAC, identified as falling within 200m buffers from a road where potential for air quality impacts had been highlighted (SES, 2022). The walkover was carried out to determine the broad habitat types present and whether the qualifying features of the SAC may be present throughout. The survey found the three areas were largely similar in composition, comprising a mosaic of woodland types, often intimately mixed. The primary woodland types included pure yew *Taxus Baccata* woodland, and *Fagus sylvatica* beech and yew woodland (both qualifying features of the SAC), and areas of ash *Fraxinus excelsior* dominated woodland. Small areas of more level ground had a greater abundance of pedunculate *Quercus robur* and sessile *Quercus petraea* oak, while pockets of sweet chestnut *Castanea sativa* and hazel coppice *Corylus avellana* were also present.

1.4 Following the walk-over survey, a detailed air quality impact assessment was undertaken of the 2037 Maidstone Local Plan Review scenario to determine, with greater specificity, the impact of nitrogen deposition on the North Downs Woodland SAC (Jacobs, 2023). Receptors representing the North Downs Woodland SAC within 200m of the Affected Road Network (ARN) were included in the air quality assessment, with transect points starting at 2m from the nearest point of the road edge, at approximately 10m intervals modelled (Jacobs, 2023).

1.5 As a result of the modelling, two transects (B and C) identified areas of the woodland SAC which could be impacted, whereby the site relevant critical loads were modelled to be exceeded and the increase in nitrogen deposition as a result of the 2037 Maidstone LP Review, was greater than 1% of the site relevant critical loads in one of the modelled scenarios (Jacobs, 2023). These areas were situated within 2.0m and 10.1m of the road for transect B and 2.0m from the road for transect C

1.6 Consequently, this NVC survey was commissioned to be carried out within these specific areas (referred to as Survey Area B and Survey Area C, corresponding to the identified transects), in order to determine whether the qualifying features of the SAC were present and could potentially be impacted as a result of the 2037 Maidstone LP Review.

1.7 This report details the survey methodology undertaken, the results and subsequent interpretation.

Aims of Study

1.8 The aims of the study are as follows:

- To survey and describe the woodland vegetation present within the two survey areas (B and C) with reference to plant communities described in the National Vegetation Classification (NVC) system of Rodwell *et al.* (1998).
- To identify any woodland Habitats of Principal Importance in England (HPIs), as listed in accordance with the requirements of Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, using the definitions of Priority Habitats given in Maddock (2011).
- To determine if habitats present within the survey areas comprise the qualifying features of the North Downs Woodlands SAC.

Site Description

1.9 The survey comprised two Survey Areas (B and C) located to the west (B) and east (C) of Lidsing Road, Maidstone. The survey areas comprised woodland set within a much larger tract of woodland along a chalk escarpment from Wouldham to Detling. The soils along the escarpment covering Survey Area B are mapped as 'shallow lime-rich soils over chalk or limestone' on Soilscapes (Cranfield University, 2016) while the top of the escarpment where Survey Area C is located is mapped as 'slightly acid loamy and clayey soils with impeded drainage.' The Survey Areas are covered by several designations as outlined below.

Designations

1.10 The Survey Areas are situated either wholly (B) or partly (C) within the North Downs Woodlands Special Area of Conservation (SAC). The SAC is classified for the presence of the following Annex I habitats:

<u>Annex I habitats that are a primary reason for selection of this site (Joint Nature Conservation Committee [JNCC])</u>

9130 Asperulo-Fagetum beech forests

"*This site consists of mature Asperulo-Fagetum beech forests and also yew 91J0 Yew Taxus baccata woods on steep slopes. The stands lie within a mosaic of scrub and other woodland types and are the most easterly of the beech woodland sites selected. Parts of the woods were affected by the Great Storm of 1987*."

91J0 Taxus baccata woods of the British Isles* Priority feature

"*Yew Taxus baccata woodland at this site is associated with 9130 Asperulo-Fagetum beech forests, scrub and small areas of unimproved grassland on thin chalk soils. Where the shade is not too dense dog's mercury Mercurialis perennis predominates in the ground flora. The site is the most easterly of those selected*."

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site (JNCC)

6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)

1.11 Survey Area B and part of Survey Area C are also notified as Wouldham to Detling Escarpment Site of Special Scientific Interest (SSSI). The SSSI comprises a 10 km stretch of the chalk escarpment to the north of Maidstone and includes representative examples of woodland, scrub and unimproved grassland habitats on chalk, which support a number of rare and scarce species of plants and invertebrates. Scarce plants include lady orchid *Orchis purpurea* and stinking hellebore *Helleborus foetidus*. The SSSI units where the survey areas are located are considered to be in 'favourable' condition following an assessment in 2021 by Natural England.

1.12 In addition, part of each Survey Area is mapped as ancient woodland on the Multi Agency Geographic Information for the Countryside (MAGIC) spatial data resource (magic.defra.gov.uk), while Survey Area B is also covered by the Boxley Warren Local Nature Reserve (LNR), designated for its international rare yew woodland, flora and fauna.

2.0 Methods

Field Survey

2.1 The NVC survey was carried out on 19 May 2023 by Molly Dailide BSc MSc MCIEEM. Molly has been a professional ecologist for over nine years and has a Botanical Society of Britain and Ireland (BSBI) Field Identification Skills Certificate (FISC) 4 botanical identification level. The survey was undertaken in dry conditions with good visibility throughout.

2.2 The NVC is a classification system based on plant species composition and frequency within a sampled stand of vegetation. Sampling of the vegetation was guided by the methodology detailed in the NVC Users' handbook (Rodwell, 2006) and British Plant Communities Volume 1 (Rodwell *et al*, 1998).

2.3 The Survey Areas were chosen to cover 0-20m from Lidsing Road along Transect B, and 0-10m from the road along Transect C (Appendix 1). They included a width of 50m for the canopy and shrub layers and a width of c. 10-20m for the ground flora, from the identified transect lines.

2.4 Survey Area B was located on a steep part of the escarpment with no safe access from either the top or bottom of the slope. Lidsing Road was not considered safe to walk along due to the fast-moving traffic and lack of pavement. In addition, the woodland rose away steeply from the road. As such, it was determined to be unsafe to access this area and a survey was not undertaken. Observations were made on the vegetation types present as viewed from the surrounding areas.

2.5 Survey Area C was initially walked by the surveyor to identify and map homogenous stands of vegetation based on structure and floristic composition. For each homogeneous stand of vegetation, quadrat locations were identified where the vegetation was considered to potentially be representative of a distinct community type. The canopy and shrub layers were sampled using a single 50 x 50m quadrat which covered the entirety of the Survey Area, while the field layers, which were short, were sampled using five 4 x 4m quadrats in line with relevant guidance.

2.6 For each quadrat, the surveyor identified all vascular plant species present and estimated their percentage cover values using the Domin scale (Rodwell *et al*., 2000) as shown in Table 1. All species were then assigned a constancy score of 'I' to 'V' depending on the number of quadrats they occurred in (Table 2).

2.7 Quadrat locations were recorded using What.Three.Words and photographs were taken of each homogeneous stand of vegetation (Appendix 2).

Table 1: DOMIN Scale of cover/abundance

DOMIN SCALE	% COVER
10	91-100%
9	76-90%
8	51-75%
7	34-50%
6	26-33%
5	11-25%
4	4-10%
3	Several (10+) individuals
2	Many (4-10) individuals
1	Few (1-4) individuals

Table 2: Assignment of Constancy Score

Constancy Score	% Occurrence across Quadrats
V	81-100%
IV	61-80%
III	41-60%
II	21-40%
I	1-20%

Data Analysis

2.8 Quadrat data was tabulated using Microsoft Excel and used to construct 'floristic tables' which include the frequency and abundance range for each species recorded within the sample quadrats. Data analysis involved the following three methods:

- The data was manually compared with NVC community identification keys in Rodwell *et al.* (1998) used to identify plant communities, based on the data in the floristic table;
- The floristic tables were compared to those in Rodwell *et al.* (1998).
- Further analysis was conducted using the Modular Analysis of Vegetation Information System (MAVIS) programme (CEH, 2016). Quadrats for each homogenous stand of vegetation were subject to a combined group analysis to determine similarity with published NVC datasets.

2.9 Once a decision has been made on the basis of the result of the keying exercise, comparison of floristic tables and computer analysis, the description for the NVC community which is assumed to be present is then read to ensure that this reflects the sampled stand.

Further Analysis

2.10 The results of the NVC survey were compared against the Annex 1 Habitats for which the North Downs Woodlands SAC is classified, and definitions for the relevant HPIs. These are provided below.

Annex 1 Habitats

2.11 The Interpretation Manual of European Union Habitats (REF) states that Annex 1 habitat 9130 *Asperulo-Fagetum* beech forests, a qualifying feature of the North Downs Woodlands SAC, corresponds to UK NVC communities W12 *Fagus sylvatica-Mercurialis perennis* woodland and W14 *Fagus sylvatica-Rubus fruticosus* woodland.

2.12 It also states that Annex 1 habitat 91J0 *Taxus baccata* woods of the British Isles, a second qualifying feature of the SAC, corresponds to NVC community W13 *Taxus baccata* woodland.

Habitats of Principal Importance

2.13 The presence of any 'Habitats of Principal Importance' (HPI) for the conservation of biodiversity as listed within Section 41 of the NERC Act 2006 were determined by considering the recorded habitats against the published criteria for relevant HPIs (formerly UK BAP Priority Habitats).

2.14 The description for Lowland Beech and Yew Woodland HPI includes the following reference to NVC communities:

"*The main corresponding National Vegetation Classification (NVC) plant communities associated with this habitat type are **W12** Fagus sylvatica-Mercurialis perennis woodland (base-rich soils), **W14** Fagus sylvatica-Rubus fruticosus woodland (mesotrophic soils), **W15** Fagus sylvatica-Deschampsia flexuosa woodland (acidic soils). Yew stands fall into **W13** Taxus baccata woodland*."

2.15 The description for Lowland Mixed Deciduous Woodland HPI includes the following reference to NVC communities:

"*In terms of the National Vegetation Classification the bulk of this type falls into **W8** (mainly sub-communities a - c in ancient or recent woods; in the lowlands W8d mostly occurs in secondary woodland) and **W10** (sub-communities a to d) with lesser amounts of **W16** (mainly W16a). Locally, it may form a mosaic with other types, including patches of beech woodland, small wet areas, and types more commonly found in western Britain*."

Limitations

2.16 The survey was carried out in May, at the optimal time of year for woodland botanical surveys, and as such there were few limitations for botanical identification. Some very early or late flowering plants may have been missed due to the timing of the survey but this should not affect the outcome of the survey results.

2.17 As described above, Survey Area B was not accessible due to the steepness of the escarpment and lack of safe access. Further information on this area is provided within the results and interpretation section below.

3.0 Results and Interpretation

Site Description

Survey Area B

3.1 Survey Area B was not accessible for survey. However, when viewed from the roadside, yew and beech trees were visible along the road, both within the area of the transect and also extending outwards from the transect, within the wider surrounding woodland along the roadside.

Survey Areas C

3.2 Survey Area C was located east of Lidsing Road at the junction with Harp Farm Road. This comprised a plateau of land bordered by arable field to the north, road to the west, and further woodland to the east and south. Public footpaths were present leading from Lidsing Road running east along the plateau (North Downs Way) and south through steep woodland.

3.3 By the road and junction was an area of cleared land c.20x20m, used by vehicles and log storage during forestry operations. This area does not comprise woodland and is clearly marked as outside of any designation, including the SAC, on Magic Map. It was therefore excluded from the survey.

3.4 The remainder of the Survey Area comprised predominantly of sweet chestnut coppice with no beech trees and very little yew present. Other trees present within the canopy included occasional ash, sycamore *Acer pseudoplatanus* and rare pedunculate oak. The shrub layer was mainly comprised of hazel with frequent elder *Sambucus nigra* and rare field maple *Acer campestre* and holly *Ilex aquifolium*. To the north of the footpath the ground flora was dominated by English bluebells *Hyacinthoides non-scripta* and wood anemone *Anemone nemorosa* while to the south of the footpath these species were present in lower abundance with species such as yellow archangel *Lamiastrum galeobdolon*, wood speedwell *Veronica montana* and enchanter's nightshade *Circaea lutetiana* more prominent. Beyond the plateau to the south, yew dominated woodland was present, where the land fell away steeply and the thinner, calcareous soils began.

Survey Results

3.5 The full species list including constancy and DOMIN values is provided in Table 3 below.

Table 3: Plant Species Data for Survey Area C

Species	Common Name	Quadrat no. & DOMIN Scale					Constancy	DOMIN Range
		Q1	Q2	Q3	Q4	Q5		
50x50 canopy and shrub layer								
Castanea sativa	Sweet chestnut	10	-	-	-	-	N/A	N/A
Corylus avellana	Hazel	8	-	-	-	-	N/A	N/A
Sambucus nigra	Elder	5	-	-	-	-	N/A	N/A

Fraxinus excelsior	Ash	4	-	-	-	-	N/A	N/A
Acer pseudoplatanus	Sycamore	2	-	-	-	-	N/A	N/A
Acer campestre	Field maple	1	-	-	-	-	N/A	N/A
Quercus robur	Pedunculate oak	1	-	-	-	-	N/A	N/A
Ilex aquifolium	Holly	1	-	-	-	-	N/A	N/A
Taxus baccata	Yew	1	-	-	-	-	N/A	N/A
4x4m ground flora								
Anemone nemorosa	Wood anemone	9	2	3	10	9	V	2-10
Hyacinthoides non-scripta	English bluebell	9		1	10	10	IV	1-10
Rubus fruticosus agg.	Bramble	4	3	1		2	IV	1-4
Circaea lutetiana	Enchanter's nightshade	4	5	5		1	IV	1-5
Lamiastrum galeobdolon	Yellow archangel		6	5			II	5-6
Veronica montana	Wood speedwell		5	4			II	4-5
Ranunculus ficaria	Lesser celandine			4	5		II	4-5
Glechoma hederacea	Ground ivy		2	3			II	2-3
Silene dioica	Red campion	4					1	4
Stachys sylvatica	Hedge woundwort	2					1	2
Rumex sanguineus	Wood dock			2			1	2
Ajuga reptans	Bugle		1				1	1
Ranunculus repens	Creeping buttercup			1			1	1
Mercurialis perennis	Dog's mercury			5			1	5
Milium effusum	Wood millet			1			1	1
Carex sylvatica	Wood sedge		1				1	1
Dryopteris affinis	Scaley-male fern	1					1	1
Galium aparine	Cleavers			1			1	1

3.6 The Mavis analysis of the quadrat data for the Survey Area provided a poor fit with any NVC woodland communities. The top ten matching coefficients are provided in Table 4 which shows that all communities have a matching coefficient of less than 53%, generally considered a poor fit.

Table 4: Mavis Analysis of Survey Area C Quadrats

NVC Community	Matching Coefficient
W10b	52.73
W8b	47.62
W10	46.89
W10c	46.51
W8d	44.41
W10a	44.08
W25	40.77
W12a	39.57
W8	39.33
W8a	39.19

3.7 When the data is used in conjunction with the published keys for woodlands and the surveyor's experience, it is considered that the community present is most accurately described as being NVC woodland community W10a *Quercus robur – Pteridium aquilinum – Rubus fruticosus* woodland (typical sub-community).

3.8 It is recognised that the canopy has been altered by potential planting of sweet chestnut which may have resulted in a poor fit with W10, however the shrub layer and ground flora were considered to most closely match W10 with frequent hazel and bramble, and English bluebell and wood anemone often as the vernal dominant. Calcicolous shrubs, herbs and grasses associated with W8 woodland were generally limited with dog's mercury becoming more frequent towards the edge of the plateau and Survey Area, where the woodland began to change gradient into a steep slope with yew woodland (W13) present.

Comparison to Qualifying Features of SAC

3.9 The qualifying woodland features of the North Downs Woodland SAC are Annex 1 habitat 9130 *Asperulo-Fagetum* beech forests, which corresponds to UK NVC communities W12 *Fagus sylvatica-Mercurialis perennis* woodland and W14 *Fagus sylvatica-Rubus fruticosus* woodland, and Annex 1 habitat 91J0 *Taxus baccata* woods of the British Isles, a second qualify features of the SAC, which corresponds to NVC community W13 *Taxus baccata* woodland.

3.10 Survey Area C matched most closely to woodland community W10. The Survey Area lacked beech trees and therefore did not align with either W12 or W14 corresponding to the *Asperulo-Fagetum* beech forests feature of the SAC. The Survey Area was not dominated by yew and therefore did not correspond to community W13 and *Taxus baccata* woods of the British Isles, a second qualifying feature of the SAC. The woodland was observed to change towards the edge of the plateau and Survey Area, where yew woodland (W13) was present within the wider woodland area.

3.11 While Survey Area B could not be fully accessed, it was clear from a visual inspection from the road that both beech and yew trees were present at least along the roadside, both within the area of the transect and further along the roadside. Given this, the presence of the qualifying features of the SAC

within this area cannot be ruled out and due to the suitability of the topography and soils it is considered likely the woodland communities within the area would correspond to the Annex 1 habitats for which the SAC is designated.

Comparison to Habitats of Principal Importance

3.12 As the woodland community within the Survey Area is W10, it is therefore considered to be Lowland Mixed Deciduous Habitat of Principal Importance.

4.0 Discussion

4.1 Based on the results of the NVC survey and analysis carried out at the sampling locations along transect survey areas B and C, the following conclusions have been made:

Survey Area B

4.2 The woodland canopy and ground flora quadrats at 0-20m along Transect B were not able to be sampled in accordance with the NVC survey methodology due to significant physical access constraints, however, the vegetation present within this area was visible from the surrounding locality. Due to the presence of both yew and beech trees within and adjacent to this survey area it is considered likely that the qualifying woodland features of the SAC are present along this transect and within the wider habitat areas along Lidsing Road. Therefore, with the site relevant critical loads of nitrogen deposition modelled to be exceeded at both 2.0m and 10.1m from the road, and the qualifying woodland features present within the impact zone, adverse impacts from increased nitrogen deposition cannot be ruled out.

Survey Area C

4.3 The habitats present at 0-10m along Transect C were sampled and subject to NVC survey and analysis and were determined to match most closely with NVC woodland community W10a *Quercus robur – Pteridium aquilinum – Rubus fruticosus* woodland (typical sub-community). When compared to the applicable NVC woodland communities of the qualifying woodland features (see 3.9 and 3.10), the woodland within the Transect C woodland canopy quadrat (i.e. for a width of 50m between 0 to 10m from the road edge) did not correspond. Therefore, Survey Area C did not contain the qualifying woodland features of the SAC, although yew woodland (W13) was observed within the wider woodland area.

5.0 Conclusions

5.1 The Survey Areas selected for detailed NVC survey and analysis were based on the results of a detailed air quality impact assessment undertaken of the 2037 Maidstone Local Plan Review scenario (Jacobs, 2023). Two transects (B and C) identified areas of the woodland SAC which could be impacted, whereby the site relevant critical loads were modelled to be exceeded with the increase in nitrogen deposition greater than 1% of the site relevant critical loads in one of the modelled scenarios (Jacobs, 2023). The current survey was therefore carried out within these specific areas (referred to as Survey Area B and Survey Area C to determine whether the qualifying features of the SAC were present within the impact zone.

5.2 Whilst access into Survey Area B was severely constrained, both yew and beech trees were observed within and adjacent to this survey area and further along the roadside within the wider woodland area and it was therefore considered likely that the qualifying woodland features of the SAC were present along this transect.

5.3 The habitats present within Survey Area C were determined to match most closely with NVC woodland community W10a *Quercus robur – Pteridium aquilinum – Rubus fruticosus* woodland (typical sub-community). This woodland community did not therefore correspond to the qualifying woodland features of the SAC. The woodland was observed to change towards the edge of the plateau and Survey Area, where yew woodland (W13) was present within the wider woodland area.

5.4 Based on the results obtained, adverse effects from increased nitrogen deposition on the qualifying woodland features of the SAC within the impact zone cannot be ruled out.

6.0 References

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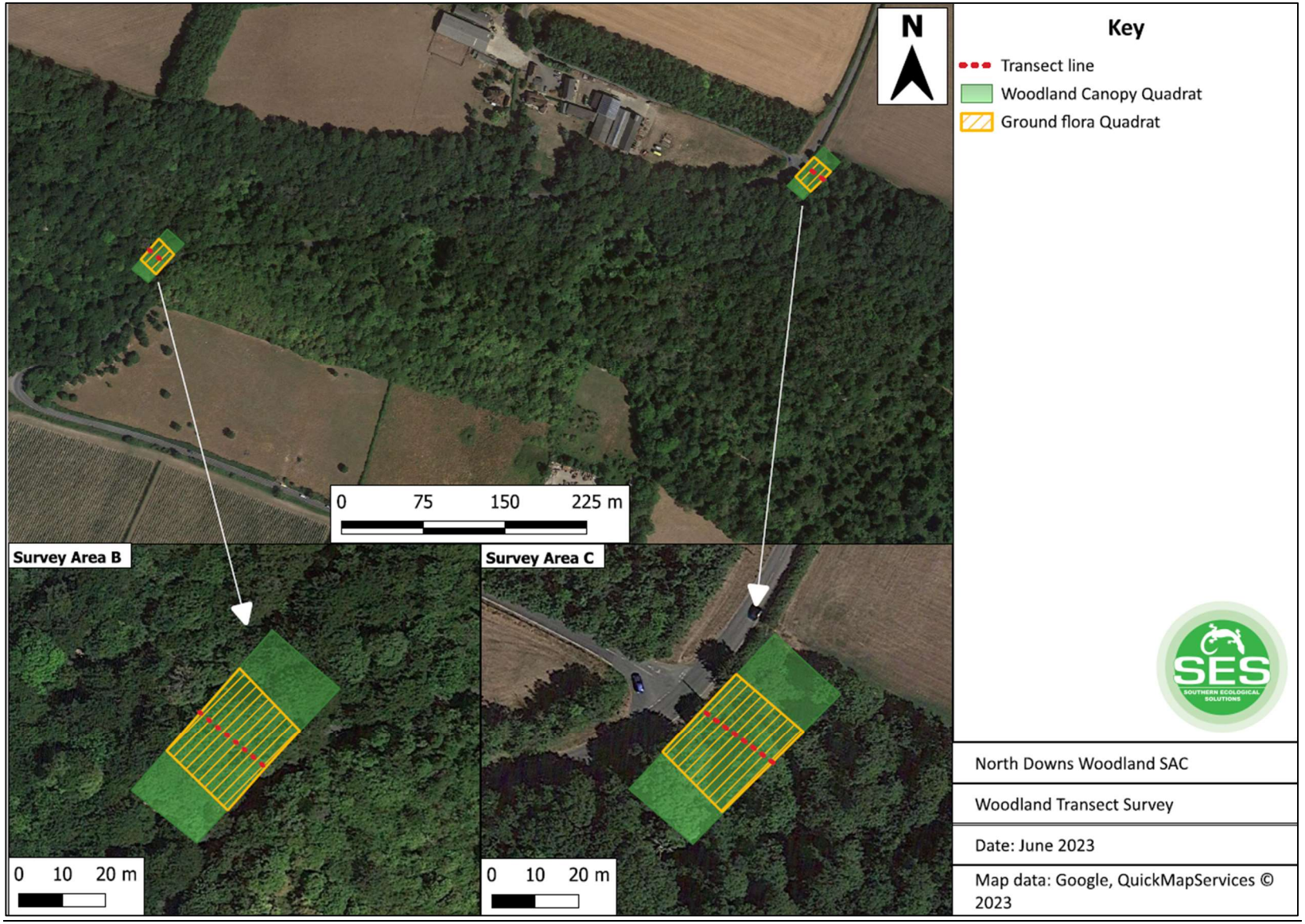
Appendix 1: Transect Location Plan



Appendix 2: Quadrat Locations and Photographs – Survey Area B

Quadrat No. and What.Three.Words Location	Photographs
1 – rings.smuggled.cackling	
2 – sensitive.news.closets	

3 – secondly.valid.marmalade	
4 – mere.waltzed.dishes	
5 – units.nicely.river	

Appendix C
Main Modifications

C.1 **Table C.1** summarises the Local Plan Review Main Modifications that are relevant to the HRA and their implications.

C.2 Modifications that are not listed in this table will not affect the HRA findings.

Table C.1: HRA implications of Main Modifications

Local Plan Review reference	Main modification	Implications for HRA
Policy LPRSS1 Maidstone Borough Spatial Strategy	**Amend Policy LPRSS1 as follows:** Maidstone Borough spatial strategy ~~2022-2037~~2021-2038 1. Between ~~2022~~2021 and ~~2037~~2038 provision is made through the granting of planning permissions and the allocation of sites for a minimum of ~~17,746~~19,669 new dwellings. 2. Between ~~2022~~2021 and ~~2037~~2038 provision is made through the granting of planning permissions and the allocation of sites for a minimum of 119,250m² employment floorspace as follows: i. ~~33,430~~36,650m² floorspace for office use; ii. ~~27,135~~33,660m² floorspace for industrial use; iii. ~~40,990~~48,940m² floorspace for warehousing use. 3. Between ~~2022~~2021 and ~~2037~~2038 provision is made through the granting of planning permissions and the allocation of sites for a minimum of 14,360m² retail, food and beverage floorspace as follows: i. ~~5,726~~5,990m² floorspace for retail (convenience) use; ii. ~~1,116~~1,220m² floorspace for retail (comparison) use; and iii. ~~6,927~~7,150m² floorspace for food and beverage use. 4. New land allocations that contribute towards meeting the above provisions are identified on the policies map. … 9. The Council will seek to ensure that the accommodation needs of the gypsy, traveller and travelling showpeople community over the plan period will be met in full. Further details will be set out in a Gypsy, Traveller and Travelling Showpeople DPD. **Amend paragraph 5.19 (supporting text for Policy LPR SSI) as follows:**	Overall quantum of development: implications for air pollution and recreation pressure Change in Plan period: implications for air pollution assessment and applicability of BirdWise mitigation strategy.

<table>
<tr><th>Local Plan Review reference</th><th>Main modification</th><th>Implications for HRA</th></tr>
<tr><td></td><td>~~There is a potentially significant emerging need for Gypsy &and Traveller accommodation.~~ As noted elsewhere in this document, work on a dedicated Development Plan Document (DPD) ~~will be undertaken at the earliest opportunity~~ is underway, in accordance with the Local development Scheme (LDS) timetables. There is a potentially significant need for gypsy and traveller accommodation. The emerging evidence, in the form of a Gypsy, Traveller and Travelling Showpeople Accommodation Assessment (GTAA), indicates an indicative total need for 543 pitches and 7 plots over the period 2023 to 2040. These figures include both those who meet the planning definition as set out in the Planning Policy for Traveller Sites and those households of gypsy and traveller ethnicity who do not travel but seek culturally appropriate accommodation.

Importantly it is recognised that these figures are subject to review and finalisation and do not represent the final number of pitches that must be allocated through the DPD. Further work is required to understand the short term need for pitches for those meeting the planning definition, as this will indicate the requirement specifically for site allocations and the number will need to be adjusted accordingly at that time. Additionally, assessment of existing sites is required to ascertain how much of the identified need can be sustainably and suitably accommodated through existing site reorganisation, intensification and/or expansion, without the need to find additional land for entirely new sites.

Ultimately, the need figures contained in the emerging DPD will supersede the indicative figures provided in this Local Plan Review.</td><td></td></tr>
<tr><td>Policy LPRSP1 Maidstone Town Centre</td><td>Amend Policy LPRSP1 criterion (3) as follows:

Through a combination of site allocations, identified broad locations and the granting of planning permissions, development in the town centre will deliver in the region of ~~3,059~~2,500 new homes, 6,169 sqm of commercial floorspace, and ~~6,462~~7,162 sqm of retail/food and drink floorspace to ~~2037~~2038. This includes the following:

<table>
<tr><th colspan="5">Town Centre allocations</th></tr>
<tr><th>Reference</th><th>Site address</th><th>New homes</th><th>Commercial floorspace (sqm)</th><th>Retail floorspace (sqm)</th></tr>
</table></td><td>Distribution of employment and housing in Maidstone town: implications for air quality assessment and recreation pressure.</td></tr>
</table>

Local Plan Review reference	Main modification					Implications for HRA
	H1(18)	Dunning Hall (off Fremlin Walk), Week Street	14	0	0	
	RMX1(3)	King Street car park	0	0	~~700[1]~~ 1,400	
	LPRSA144	High Street/Medway Street[43]	50	0	150	
	LPRSA145	Len House[21]	159	0	3,612	
	LPRSA146	Maidstone East/ Royal Mail sorting office[32]	500	5,000	2,000	
	LPRSA147	Gala Bingo & Granada House	40	TBD	TBD	
	LPRSA148	Maidstone Riverside	650	TBD	TBD	
	LPRSA149	Maidstone West	~~201~~ 130	0	TBD	
	LPRSA151	Mote Road[2]	172	1,169	0	
	Sub-total:		**~~604~~ 1,715**	**~~5,000~~ 6,169**	**~~2,150~~ 7,162**	
	Town Centre Broad Location					
	H2 (1) The Mall		400	0	0	
	H2 (1) Office conversion		~~110[5]~~ 174[3]	0	0	
	Sites TBC reflecting Town Centre Strategy, but could include components of Sessions		~~700~~ 215	TBD	TBD	
	House; Broadway; Lockmeadow; sites on Week Street; Mill Street Car Park and others					
	Sub-total:		**~~1,219~~ 789**	**0**	**0**	
	TOTAL:		**~~3,059~~ 2,504**	**6,169**	**~~6,462~~ 7,162**	
Policy LPRSP4(A) Heathlands Garden Settlement	**Amend Policy LPRSP4(A) as follows**:					[Note: only modifications relevant to HRA listed in previous column]

<table>
<tr><th>Local Plan Review reference</th><th>Main modification</th><th>Implications for HRA</th></tr>
<tr><td></td><td>
The Council will work with the promoter to produce an agreed Supplementary Planning Document to masterplan and facilitate the site's delivery. The following criteria must be met in addition to other policies of this Local Plan:

1) Phasing and delivery

Housing completions are anticipated to commence ~~2029~~2031, with infrastructure being delivered in accordance with the table below;
<table>
<tr><th>Dates</th><th>Development</th><th>Indicative Complementary Infrastructure</th></tr>
<tr><td>Preliminaries</td><td>N/A</td><td>[no infrastructure relevant to HRA]</td></tr>
<tr><td>(Phase 1) 2031-2037</td><td>Cumulative total: circa 1,310 homes

New Local Centre including employment offer appropriate to the early phase and location</td><td>New/improved wastewater treatment mechanisms delivered and cordon sanitaire

Phased nutrient neutrality mitigations delivered in accordance with Nutrient Neutrality Strategy</td></tr>
<tr><td>(Phase 2) To 2045</td><td>Cumulative total: circa 3,101 homes

District centre</td><td>Phased nutrient neutrality mitigations delivered in accordance with Nutrient Neutrality Strategy</td></tr>
</table>
</td><td>Mitigation required to demonstrate nutrient neutrality and therefore avoid adverse effects on the integrity of Stodmarsh SAC and SPA/Ramsar.</td></tr>
</table>

Local Plan Review reference	Main modification	Implications for HRA
	<table><tr><td>(Phase 3) To 2048</td><td>Cumulative total: circa 3,758 homes</td><td>Phased nutrient neutrality mitigations delivered in accordance with Nutrient Neutrality strategy</td></tr><tr><td>(Phase 4) To 2054</td><td>Cumulative total: circa 5,000 homes New Local Centre</td><td>Phased nutrient neutrality mitigations delivered in accordance with a Nutrient Neutrality Strategy</td></tr><tr><td>(Phase 5) To 2054</td><td>Cumulative total: circa 5,000 homes</td><td>[no infrastructure relevant to HRA]</td></tr></table> … **5) Infrastructure** d) The delivery of an improved or new waste water treatment facility covering the Greater Lenham / Upper Stour catchment, including sufficient distance being provided between the new Wastewater Treatment Works and residential development, taking account of the potential need for future expansion, and allow for adequate odour dispersion, on the basis of an odour assessment to be conducted in consultation with Southern Water; … **7) Environmental** a) A new country park around the Stour River corridor in the south of the site. ~~including a~~ The creation of a wetlands areas to assist with the filtration of nitrates ~~&~~and phosphates arising within the upper Stour catchment, having regard to Natural England's latest advice ~~in July 2020~~ regarding nutrients entering the River Stour and other relevant statutory biodiversity advice;	

Local Plan Review reference	Main modification	Implications for HRA
Policy LPRSP4(B) Lidsing Garden Community	**Insert new supporting text to Policy LPRSP4(B) as follows:** The impact of new development on the integrity of the North Downs Woodlands SAC requires careful consideration, with reference to Policy LPRSP14(A). Traffic modelling of the proposed development will be required to quantify the predicted nitrogen deposition on roads passing the SAC. If nitrogen deposition exceeds the screening criteria set out in IAQM guidance (1% of the SAC's critical load for nitrogen deposition), then mitigation will be required. Mitigation measures must be set out in a Mitigation Strategy, to be agreed by the Council and Natural England. Applications must clearly demonstrate through project-level HRA that the Mitigation Strategy is appropriate, can be feasibly implemented and will be sufficient to fully mitigate any identified adverse effects on the SAC. Mitigation measures may be provided on and/or off-site as appropriate and necessary. In preparing the Mitigation Strategy, applicants should have regard to the following package of mitigation measures which may be deployed, either in isolation or in-combination, as and when necessary and appropriate for air quality. The mitigations, which are in no particular order and are not exclusive, are as follows: i. Green Travel Planning focussed on employment facilities, commercial facilities, schools and the use of transport connections within and adjacent to the development . ii. Traffic calming to discourage access/egress via Boxley and Bredhurst. iii. Provision of cycle and pedestrian facilities to encourage sustainable modes of transport via Boxley and Bredhurst. iv. On-site measures to encourage/increase take up of low emission vehicles, such as EV charging points. v. HGV and other vehicle "site servicing" and "delivery route" management strategies. vi. Strategic road signage strategy. vii. Off-site planting at agreed locations and species. viii. The design of residential layouts and configuration of estate roads in a manner which discourages access/egress via Boxley and Bredhurst. ix. Typologies of development located at the southern sector of the site which generate lower car ownership levels of trip rates, i.e.: higher density apartment type accommodation, older persons accommodation.	Embeds requirements for air pollution mitigation, to ensure that adverse effects on the integrity of North Downs Woodlands SAC can be avoided.

<table>
<tr><th>Local Plan Review reference</th><th>Main modification</th><th>Implications for HRA</th></tr>
<tr><td></td><td>
x. Home and flexible working supported by broadband infrastructure to encourage and enable people to drive less.
xi. Low emission strategy at south of site and through Boxley/Bredhurst.

Amend Policy LPRSP4(B) as follows:

The Council will work with the promoter to produce an agreed Supplementary Planning Document to masterplan and facilitate the site's delivery. The following criteria must be met in addition to other policies of this Local Plan:

1) Phasing & delivery

a) Starting ~~in approximately 2027~~ no later than 2028

<table>
<tr><th>Phase</th><th>Development</th><th>Indicative Complementary Infrastructure</th></tr>
<tr><td>Preliminary</td><td>N/A</td><td>• Access routes into development site
• Utility infrastructure capacity
• Community engagement established and will be ongoing
• Subject to Transport Assessment and Monitor and Manage Strategy, implement delivery of other supporting transport infrastructure that is necessary for this stage, including off-site junction mitigations.</td></tr>
<tr><td>(Phase 1) From which start date will be no later than 2028</td><td>Cumulative total: circa 590 homes (in first 5 years after commencement)</td><td>• Primary connections into the site and corresponding initial bus diversions
• AONB - the structural planting to the south of the Lidsing development area (adjacent to the motorway) will be approved as part of the SPD and later outline/hybrid application and this strategic landscaping shall be planted within this period</td></tr>
</table>
</td><td></td></tr>
</table>

Local Plan Review reference	Main modification			Implications for HRA
			• Detailed approval of the mix of employment uses, building height and design shall be in place in line with the SPD. • Open Space complementary to the 590 completed units in this phase to be delivered • Proportionate secondary school contributions received • During this stage the West-East link road will be completed and will facilitate the full orbital bus route • Subject to Transport Assessment and Monitor and Manage Strategy, implement delivery of other supporting transport infrastructure that is necessary for this stage, including off-site junction mitigations	
	(Phase 2) From 2033 to 2038	Housing completions average 150 per annum New Local Centre	• Completion of the M2 J4 spur, with possible interim utilisation of existing Maidstone Road bridge crossing to allow the employment development to commence early in this stage • Subject to Transport Assessment and Monitor and Manage Strategy, implement delivery of off-site mitigations in Bredhurst and Boxley following consultation with local communities • Towards the end of the stage and as necessitated by demand, opening of replacement bridge crossing • Ancient woodland enhancement secured • Proportionate Secondary school contribution received • 3FE Primary school land transferred and serviced for 3FE primary. Contributions to construct will be secured by S106 in each phase • Capstone Valley North-South open space/ pedestrian enhancement completed	

Local Plan Review reference	Main modification			Implications for HRA
			• Open Space complementary to the completed residential units • Employment site commenced • Land transferred and serviced for new medical facility for GP surgery to be provided • Subject to Transport Assessment and Monitor & Manage Strategy, implement delivery of other supporting transport infrastructure that is necessary for this stage, including off-site junction mitigations	
	By 2038	Cumulative total: Minimum 1,340 homes 14 ha serviced employment site delivered	• M2J4 AONB mitigation for the19ha of land to the south of the M2 completed • Open Space complementary to completed residential units delivered and meeting wider SPD phasing	
	(Phase 3) By 2042	Cumulative total: circa 2,000 homes	• Open space complementary to completed residential units delivered and meeting wider SPD phasing • All of proportionate secondary school contributions received	
	…			
	2) Housing			
	a) 2,000 new homes in total, including ~~1,300~~ 1,340 units within the Plan period up to ~~2037~~ 2038;			
	…			
	6) Transport Connections			

Local Plan Review reference	Main modification	Implications for HRA
	Prior to the first occupation of any floorspace or units on the development of a 'Vision and Validate' and 'Monitor and Manage Strategy' shall be submitted to and approved by the Local Planning Authority, in consultation with National Highways and KCC Highways. Thereafter the approved framework shall be implemented until full completion of the development unless otherwise agreed by the Local Planning Authority. a) A new connection to the M2 at Junction 4 will be created, enabling improved connections across the Capstone Valley and into Medway; b) A new ~~orbital~~ bus service: ~~linking Lordswood & Hempstead, and linking to the Medway town centres will be created;~~ i. Linking Lordswood & Hempstead, and linking to the Medway town centres; ii. Serving Boxley and Bredhurst, including exploring the potential for diversion through the site; c) New half-hourly bus services to be provided between the site and Chatham via North Dane Way. d) Cycling & Walking links throughout the site, and strategically north-south along the Capstone Valley and into the wider Medway area will be created; e) Priority, through design, throughout the site for vulnerable road users and active travel modes. f) Measures to prevent rat-running in local roads, including through Bredhurst and Boxley. g) ~~(Placeholder for any required offsite capacity improvements, as necessary)~~ Routes identified as sites for potential mitigations will be subject to further assessment, and this will be undertaken via the Supplementary Planning Document. This may include mitigations in Boxley, Bredhurst and on the A229 and A249 corridors as well as at M2 Junction 3 in accordance with the Monitor and Manage process set out in the IDP. Off-site highway improvements, some of which may be necessary in	

Local Plan Review reference	Main modification	Implications for HRA
	the Medway area, will be subject to further assessment and delivered in accordance with the development phasing provisions set out in (1)(a) above. **7) Environmental** a) A Climate Change adaptions and mitigation strategy based on national and local guidelines; b) A minimum of 20% biodiversity net gain will be expected to be delivered on-site; c) There are several areas of potential archaeological sensitivity across the site, and these should be surveyed and development should respond to their significance and be informed by a heritage Impact Assessment d) Sustainable drainage methods are implemented to manage surface water flooding issues and ensure that flood risk is not exacerbated elsewhere including a site-wide Flood Risk Assessment will be required; e) Noise and drainage and light pollution mitigation measures are integrated within the design; f) The development area has a rich and diverse heritage which presents unique opportunities and constraints. It will be important that key parts of the site are carefully designed to ensure appropriate conservation and enhancement of heritage assets to the benefit of the garden village community; their awareness, understanding and enjoyment of the special historic environment here. Heritage assets to be responded to within the site include site of a 20th century military balloon installation g) A financial contribution shall be made to mitigate recreational impact on the Medway Estuary and Marshes SPA and Ramsar. h) Site design and layout shall be informed by a sensitive response to local historic assets and landscapes. i) Development proposals must demonstrate that the Lidsing garden community, either alone or in combination with other relevant plans and projects, will avoid adverse effects on the integrity of the North Downs Woodlands SAC, due to air quality, with reference to Policy LPRSP14(A). Mitigation measures will be required where necessary and appropriate.	
Policy LPRSP5(C) Lenham Broad Location for Housing Growth	**Amend Policy LPRSP5(C) to insert new criteria (11), (12) and (13) as follows:** 11. Development in Lenham and Lenham Heath that would result in a net increase in population served by a wastewater system will need to ensure that it will not have an adverse effect on the integrity of Stodmarsh	Mitigation required to demonstrate nutrient neutrality and therefore avoid adverse effects on the integrity of Stodmarsh SAC and SPA/Ramsar.

<table>
<tr><th>Local Plan Review reference</th><th>Main modification</th><th>Implications for HRA</th></tr>
<tr><td></td><td>SAC/SPA/Ramsar site. Where a proposed development falls within the Stour Catchment (e.g. Lenham, east of Faversham Road), or where sewage from a development will be treated at a Waste Water Treatment Works that discharges into the river Stour or its tributaries, then applicants will be required to demonstrate that the requirements set out in the advice letter and accompanying methodology on Nutrient Neutrality issued by Natural England have been met. This will enable the Council to ensure that the requirements of the Habitats Regulations are being met.</td><td></td></tr>
<tr><td>Policy LPRSP6(D) Lenham</td><td>Amend Policy LPRSP6(D) as follows:

…

5) Key infrastructure requirements for Lenham include:
e) Improvements to wastewater capacity to serve the Lenham broad location unless otherwise stated by the utility provider</td><td>Mitigation required to demonstrate nutrient neutrality and therefore avoid adverse effects on the integrity of Stodmarsh SAC and SPA/Ramsar.</td></tr>
<tr><td>Policy LPRSP10 Housing Delivery</td><td>After paragraph 7.2, insert a new policy SP10 titled ‘Housing delivery’ as follows:

1. Over the plan period 2021 to 2038, provision will be made for the development of a minimum of 19,669 new homes in the borough.
2. To ensure a plan-led approach to development, the annual level of growth is to occur over a series of steps, aligned to the expected timing of delivery of new homes. This stepped trajectory is as follows:
<table><tr><th>Years</th><th>Annualised growth (new homes)</th><th>Total cumulative growth (new homes)</th></tr><tr><td>2021/22 – 2023/24</td><td>1,157</td><td>1,157</td></tr><tr><td>2024/25 – 2028/29</td><td>1,000</td><td>7,157</td></tr><tr><td>2029/30 – 2033/34</td><td>1,150</td><td>12,907</td></tr></table></td><td>New policy; some minor changes to housing capacity at individual site allocations.

Quantum of development assessed under Policy SS1 and site allocations, therefore this policy will not itself result in additional development.</td></tr>
</table>

Local Plan Review reference	Main modification	Implications for HRA

2034/35 – 2037/38	1,352 x 3 years 1,353 x 2 years	19,669
	Total:	19,669

2. Appendix 1 of this Plan shows the trajectory for delivering new homes over the plan period, including the breakdown of supply by aggregated source. This is a snapshot in time and delivery progress will be monitored annually through the Authority's Monitoring Report.

Deliverable supply

4. To help ensure the continued delivery of new homes, a rolling supply of deliverable sites is to be maintained in order to meet the total housing requirement (plus appropriate buffer moved forward from later in the plan period) over a five-year time frame (usually 1st April to 31st March the following year). This supply position is to be updated and published at least once per year, in accordance with the requirements of the NPPF and any associated guidance.

Maintaining delivery

5. Should the Council determine, through the annual monitoring process, that the housing delivery position has altered such that the NPPF 'tilted balance' is engaged (paragraph 11d, footnote 8), then proposals for additional residential development in the borough will be supported on sites where they are:

a. Broadly consistent with, not prejudicial to and contributing towards the positive achievement of the plan's overall spatial vision and spatial strategy; and

Local Plan Review reference	Main modification	Implications for HRA
	b. In a sustainable location and of a scale and nature commensurate to the deficit in required housing and the Plan's spatial strategy; and c. Able to demonstrate the ability to contribute in a timely and proportionate manner to addressing the deficit in housing supply; and d. In all other respects in accordance with other Local Plan policies, in so far as they apply. 6. If monitoring identifies that it is not possible to demonstrate a five-year supply of deliverable land for the Borough, and there is no recovery of identified supply indicated for the two subsequent monitoring years, then a full or partial review of the Local Plan will be implemented. **Designated Neighbourhood Areas** 7. As a minimum, and as set out in Table X [to be confirmed] of the supporting text, Designated Neighbourhood Areas are required to accommodate housing from any site allocations within their designated neighbourhood area boundary (or part thereof), as contained in Section 8 and Appendix 1 of this LPR; plus, any additional homes assigned to them through policy LPRSP8 – Smaller Villages where relevant. Additional to this are windfall sites (including first homes, affordable housing exception, and older peoples housing sites) and any part of the Garden Settlements or Strategic Development Locations that fall within the designated neighbourhood area. 8. Any future Designated Neighbourhood Areas will be expected to accommodate, as a minimum, relevant housing requirements from: a. Site allocations within this LPR (apportioned where sites are partially within the designated area); b. Policy LPRSP8; and c. Garden Settlements or Strategic Development Locations (apportioned where sites are partially within the designated area).	

<table>
<tr><th>Local Plan Review reference</th><th>Main modification</th><th>Implications for HRA</th></tr>
<tr><td></td><td>
After new policy SP10 ‘Housing delivery’ insert new supporting text as follows: Designated

Neighbourhood Areas

There are currently 16 Designated Neighbourhood Areas within the borough. In line with paragraph 66 of the NPPF, the housing requirement for designated neighbourhood areas has been considered within the plan. In considering this requirement, regard has been had to the Sustainability Appraisal, transport and infrastructure capacity, the size and functionality of settlements within the areas and the overall spatial strategy of the plan. The plan includes a number of allocations within designated areas, along with further allocations in non-designated parishes. Additionally, the broad location for smaller villages at Policy LPRSP8 sets a requirement for a limited amount of additional new homes to come forward through the making of neighbourhood plans in those areas.

The number allocated through plan policies is not a maximum requirement, nor is it finite. It should be considered as additional to any windfall sites that come forward (including first homes, affordable housing exception, and older peoples housing sites), and any part of the Garden Settlements or Strategic Development Locations that may fall within the designated neighbourhood area. The table below, sets out the indicative minimum housing requirements for each of the 16 Designated Neighbourhood Areas, exclusive of Garden Settlements, Strategic Development Locations and any potential future windfall, affordable housing and older peoples housing exception sites:

<table>
<tr><th>Designated Neighbourhood Area</th><th>Site allocation</th><th>Broad Location - Villages figure</th><th>Total minimum housing requirement figure</th></tr>
<tr><td>Bearsted</td><td>H1(31) [50 units]</td><td>-</td><td>50</td></tr>
</table>
</td><td></td></tr>
</table>

Local Plan Review reference	Main modification				Implications for HRA
	Boughton Monchelsea	LPRSA360 [15 units]* LPRSA270 (part) [108 units]* H1(52) [25 units] H1(53) [40 units]** H1(54) [25 units]**	-	213	
	Boxley	-	25	25	
	Broomfield & Kingswood	-	35	35	
	Coxheath	LPRSA364 [10 units] LPRSA251 [5 units] LPRSA202 [60 units]	-	75	
	Harrietsham	LPRSA101 [53 units] LPRSA071 [47 units]	-	100	
	Headcorn	LPRSA310 [110 units] H1(36) [220 units]**	-	330	
	Lenham	Lenham Neighbourhood Plan [1,047 units]	-	1,047	
	Loose	LPRSA360 [15 units]*	-	15	
	Marden	LPRSA295 [113 units]	-	237	

Local Plan Review reference	Main modification	Implications for HRA

	H1(46) [124 units]**		
North Loose	-	-	0
Otham	LPRSA172 (part) [38 units]* H1(8) [440 units]** H1(9) [335 units]**	-	813
Staplehurst	LPRSA114 [49 units] LPRSA066 [78 units] H1(48) [250 units]** H1(49) [400 units]**	-	777
Sutton Valence	LPRSA078 [100 units]	-	100
Tovil	LPRSA265 [250 units]	-	250
Yalding	LPRSA248 [100 units]	-	100
TOTAL	**4,132**	**60**	**4,167**

*Only part of the site allocation is within the Designated Neighbourhood Area boundary. The number of units has therefore been apportioned and is indicative only.

**These site allocations are 'saved' from the 2017 Local Plan and show the total number of homes included in the allocation; however, the sites are under construction/are already delivering new homes.

Local Plan Review reference	Main modification	Implications for HRA
Policy LPRSP11(B) Creating New Employment Opportunities	**Amend Policy LPRSP11(B) as follows:** **Allocated sites – employment** 1. The sites allocated under policies ~~LPR~~EMP1(1), ~~LPR~~EMP1(2), ~~LPR~~EMP1(4), ~~LPRSAEmp1~~RMX1(4), and LPRSA260 will deliver approximately 105,000m2 employment floorspace to help meet employment needs during the plan period. Development will be permitted provided the criteria for each site set out in the detailed site allocation policies are met. **Allocated sites – mixed use** 2. The sites allocated under policies ~~LPR~~RMX1(1), ~~LPR~~RMX1(3), LPRSA066, LPRSA078, LPRSA144, LPRSA145, LPRSA146, LPRSA147, LPRSA148, LPRSA149, ~~and~~ LPRSA151, and LPRSA362 will deliver a mix of approximately ~~27,439~~ 34,239m² employment floorspace and ~~6,862~~ 7,562m² net retail floorspace, along with new homes to help meet the borough's needs over the plan period. Development will be permitted provided the criteria for each site set out in the detailed site allocation policies are met.	Quantum of employment provision: implications for air quality assessment
Para. 7.153 (supporting text for LPRSP14(A) Natural Environment)	**Amend paragraph 7.153 as follows:** The Stodmarsh SAC/SPA/Ramsar site is sensitive to increases in nitrogen and phosphorous arising from the River Stour. Natural England has agreed a mitigation strategy that requires developments that would result in a net increase in population served by a wastewater system within the Stour catchment area to demonstrate that they will not result in a net increase in nitrogen and phosphorous at the Stodmarsh SAC/SPA/Ramsar site. Developments in and around Lenham, including Heathlands Garden Settlement and the Lenham Broad Location for growth, will be required to meet the requirements of the mitigation/offsetting strategy, as set out in Natural England's advice note on Nutrient Neutrality issued in November 2020, or any updates to that advice.	Mitigation required to demonstrate nutrient neutrality and therefore avoid adverse effects on the integrity of Stodmarsh SAC and SPA/Ramsar.
New para. after para. 7.19 (supporting text for LPRSP14(A)	**After paragraph 7.149 insert a new paragraph as follows:** The Local Plan Review makes provision for a new garden community at Lidsing, where the impact of new development on the integrity of the North Downs Woodlands SAC requires careful consideration. Provided that	Mitigation required to avoid adverse effects on the integrity of North Downs Woodlands SAC, due to air pollution.

Local Plan Review reference	Main modification	Implications for HRA
Natural Environment)	the air pollution mitigation specified by Policy LPRSP4(B) is delivered then adverse effects on the SAC due to air quality from the plan as a whole, alone or in-combination, can be ruled out. In the event that the Lidsing garden community is not delivered, the Council will agree a proposed approach with Natural England, and no further development contributing to an increase in traffic to roads within 200m of the SAC (A229, A249 or Boxley Road) will be permitted until mitigation has been agreed, unless applicants can demonstrate that they will not have an adverse effect on the integrity of the SAC, alone or in-combination.	
Policy LPRSP14(A) Natural Environment	**Amend Policy LPRSP14(A) as follows:** **1. To enable Maidstone Borough to retain a high quality of living, protect and enhance the environment, and to be able to respond to the effects of climate change, developers will ensure that new development incorporates measures where appropriate to:** a. Deliver a minimum 20% ~~on site~~ Biodiversity Net Gain on new residential development, having regard to Biodiversity Opportunity Areas and/or Nature Recovery Networks. Biodiversity Net Gain should be calculated in accordance with the latest Natural England/DEFRA biodiversity metric or equivalent b. Protect positive landscape character including Landscapes of Local Value, areas of Ancient Woodland, veteran trees, trees with significant amenity value, important hedgerows, features of biological or geological interest, ecosystem services and the existing public rights of way network from inappropriate development, and avoid significant adverse impacts as a result of development through the provision of adequate buffers and in accordance with national guidance. c. Avoid damage to and inappropriate development considered likely to have significant direct or indirect adverse effects on: i. Internationally, nationally and locally designated sites of importance for biodiversity (either within or beyond the borough); and ii. Local Biodiversity Action Plan Priority habitats d. If significant harm to habitats and biodiversity cannot be avoided, then the mitigation hierarchy should be followed. i. Internationally, nationally and locally designated sites of importance for biodiversity (either within or beyond the borough); and	Mitigation required to avoid adverse effects on the integrity of North Downs Woodlands SAC, due to air pollution.

Local Plan Review reference	Main modification	Implications for HRA
	ii. Local Biodiversity Action Plan Priority habitats Regard shall be had to the forthcoming Design and Sustainability DPD which will further detail application of this policy. **2. Control pollution to protect ground and surface waters where necessary and mitigate against the deterioration of water bodies and adverse impacts on Groundwater Source Protection Zones and principal aquifers, and incorporate measures to improve the ecological status of water bodies as appropriate; Major developments will not be permitted unless they can demonstrate that new or existing water supply, sewage and wastewater treatment facilities can accommodate the new development. Wastewater treatment and supply infrastructure must be fit for purpose and meet all requirements of both the permitting regulations and the Habitats Regulations (for example in relation to nutrient neutrality at the Stodmarsh SAC/SPA/Ramsar site).** **3. Enhance, extend and connect habitats to enhance the borough's network of sites that incorporates designated sites of importance for biodiversity, priority habitats, Local Wildlife Sites and fragmented Ancient Woodland; support opportunities for the creation of new Biodiversity Action Plan priority habitats; create, enhance, restore and connect other habitats, including links to habitats outside Maidstone Borough, where opportunities arise;** a. Provide for the long term... b. Mitigate for and adapt to.... c. Positively contribute... **4.** Where appropriate... **5.** Any required publicly accessible...	

Local Plan Review reference	Main modification	Implications for HRA
	6. Development proposals will give… **7.** The Council will work with Natural England to assess, monitor and if necessary mitigate any recreation pressure ~~or air pollution effects~~ at North Downs Woodlands SAC. ~~Any air pollution mitigation strategy will be developed and agreed with Natural England before the Local Plan is adopted and implemented prior to adverse effects on integrity occurring; developer contributions would be used to support this~~. 7(A). Development proposals must support the Council's nature conservation objectives and in doing so must not result in adverse effects on the integrity of the North Downs Woodland SAC. Any air pollution mitigation strategy will be developed and agreed with Natural England before the development commences and implemented prior to adverse effects on integrity occurring; developer contributions will be used to support this where appropriate. The Council is committed to ensuring that development within the borough will not contribute to adverse effects on the SAC due to air quality and will take the lead on coordinating any strategic mitigation required to minimise air pollution at the SAC. **8.** Any development within...	