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# HIF 1 Corridor between the A34 Milton Interchange and the B4015 north of Clifton Hampden

Planning Application Response R3.0138/21  
Biodiversity, Landscape and Visual,  
Arboriculture, Climate Change and  
Agriculture and Soils

Oxfordshire County Council

15 February 2023

# Notice

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## Client signoff

Client	Oxfordshire County Council
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# 1. Introduction

- 1.1. This report has been prepared by Atkins on behalf of and commissioned by the Environment Team of OCC to support them in providing advice to the LPA in relation to planning application R3.0138/21.
- 1.2. The acceptability of the proposed scheme is considered for the following topics in relation to planning policy: biodiversity, landscape and visual impacts, arboriculture, climate change, and agriculture and soils. With reference to the environmental impact, and proposed measures to prevent, reduce or offset any adverse likely significant effects and to enhance any beneficial effects reported in the Environmental Statement<sup>1</sup> and other supporting documents.
- 1.3. The applicant's response to the OCC Regulation 25 Request Letter includes clarification and updated information.

## Scheme Detail

- 1.4. The linear site comprising a corridor between the A34 Milton Interchange and the B4015 north of Clifton Hampden (referred to as the 'scheme' in this report) covers approximate 155 hectares (ha), and includes part of the A4130 east of the A34 Milton Interchange, land between Didcot and the former Didcot A Power Station and the Great Western Mainline, land to the north of Didcot where it crosses a private railway sidings and the River Thames to the west of Appleford-on-Thames before joining the A415 west of Culham Station, land to the south of Culham Science Centre through to a connection with the B4015 north of Clifton Hampden.
- 1.5. The scheme includes four main sections:
  - A4130 Widening – The proposed improvement to the A4130 includes dualling between Milton Interchange at the A34 and a proposed new Science Bridge. The proposal also includes the provision of new and improved pedestrian and cycling facilities to meet modern standards;
  - Didcot Science Bridge – A new road link from the proposed dualled section of the A4130, which will extend over the Great Western Railway, through the former Didcot A Power Station site and join to the A4130 north of the Purchas/ Hawksworth roundabout, including segregated pedestrian and cycling infrastructure;
  - Didcot to Culham River Crossing – a new road between the A4130 perimeter road in Didcot, and Culham near the Culham Science Centre (CSC) including two overbridges (one extending over the River Thames) and segregated pedestrian and cycling infrastructure; and
  - Clifton Hampden Bypass – a new road between the A415, Abingdon Road, at the CSC and the B4015, Oxford Road, north of Clifton Hampden village, including shared pedestrian and cycling infrastructure.
- 1.6. As well as:
  - Controlled crossings, footways and cycleways, landscaping, lighting, noise barriers and sustainable drainage systems.

## Planning Context

- 1.7. The scheme is located within the administrative area of South Oxfordshire District Council (SODC) and Vale of the White Horse District Council (VoWHDC).
- 1.8. Where relevant this report refers to international, national and local policy, including the National Planning Policy Framework (NPPF) and the Planning Practice Guidance (PPG).
- 1.9. The NPPF was updated in July 2018 to provide greater protection for veteran trees (and subsequently updated so the latest published version is 2021). The Planning Practice Guidance (PPG) was published on the 6 March 2014 to provide more in-depth guidance to the NPPF. The PPG aims to make planning guidance more accessible, and to ensure that the guidance is kept up to date.

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<sup>1</sup> Non-Technical Summary (NTS), ES Volume I: Environmental Statement Main Document, and ES Volume II: Technical Appendices



- 1.10. This report refers to relevant policy in the following local plans:
- The South Oxfordshire District Council (SODC) Local Plan 2035
  - Vale of White Horse Local Plan 2031 Oxford Local Plan 2036.
- 1.11. The site is also located within or is immediately adjacent to the parish boundaries of Milton, Sutton Courtney, Didcot, Appleford-on-Thames, Culham and Clifton Hampden.
- 1.12. The following draft neighbourhood plan is relevant:
- Burcot and Clifton Hampden Neighbourhood Plan 2011-2034.

## Proposed Developments

- 1.13. Chapter 17 Cumulative Effects of the ES includes a short list of proposed developments for assessment in combination with planning application R3.0138/21 in Table 17.1.2 and located on Figure 17.2:
- Ladygrove East (Policy H2a) application for 250 dwellings within 1900m of scheme.
  - Didcot North East (Policy H2b) application for new and integrated neighbourhood to the northeast of Didcot of up to 1880 homes within 50m of scheme.
  - Didcot A Power Station (Policy CP16) mixed use redevelopment within 18m of scheme.
  - Land to the West of Great Western Park (Valley Park) Didcot (in the parishes of Harwell and Milton) residential development of up to 4245 dwellings on scheme boundary.
  - Land north of Dunmore Road and Twelve Acre Drive Abingdon. North of Abingdon-on-Thames (50.65 ha) allocation of around 800 homes 3900m from scheme boundary.
  - Land north west of Abingdon-on-Thames on land bound by Wootton Road, Dunmore Road and the A34 Abingdon-on-Thames application for up to 200 dwellings 4204m from scheme boundary.

## Structure of Report

- 1.14. The report includes sections on each of the following topics: biodiversity, landscape and visual impacts, arboriculture, climate change, and agriculture and soils. It is noted that there are close links between biodiversity, landscape and arboriculture considerations. The section on climate change is split between climate emissions and climate vulnerability (the effect of climate change on the scheme).
- 1.15. Each topic section includes:
- Key documents reviewed – list of key documents considered as part of the planning application
  - Suitability of assessment – overview of methodology
  - Relevant policy – national and local policy, plus other relevant planning documents
  - Context and assessment – overview of the existing context, impact of the scheme and assessment
  - Commentary – a review of the information provided as part of the planning application and Regulation 25
  - Conclusion – summary of findings and conclusion on the acceptability of the scheme.
- 1.16. A summary of responses for each topic has been included in Section 2.



## 2. Summary of Response

### Introduction

- 2.1. A summary of the response reported for each topic in Sections 3 – 7 of this report has been provided below.

### Biodiversity (Section 3)

- 2.2. The Biodiversity Assessment is considered suitable to support the planning application. The assessment has been informed by a number of protected and notable species surveys.
- 2.3. It is acknowledged that there will be some long-term impacts in respect of vegetation establishment, however overall it is accepted that impacts can be avoided and mitigated in line with the mitigation hierarchy and that biodiversity net gains can be achieved. However, clarification is required as to how the metric has been applied to the Hanson Quarry Restoration Area and how biodiversity net gain for river units is to be delivered.
- 2.4. Conditions will be required to make the development acceptable in planning terms to mitigate the adverse effects and to enhance the quality of the development. This recommendation is based on the following:
1. The conclusion of the Habitats Regulations Assessment Stage 1 Screening that owing to the limited affected road network and the lack of potential pollution pathways that there will be no likely significant effects alone and in combination on the Little Wittenham SAC and Cothill Fenn SAC
  2. The requirement for a European Protected Species Mitigation Licence for bats.
  3. The requirement for a Natural England badger mitigation licence along with appropriate measures including the construction of two artificial setts, to mitigate for the loss of several badger setts lost to the scheme.
  4. The implementation of appropriate measures to mitigate for the loss of breeding and wintering bird habitat and isolated pockets of notable invertebrates, and appropriate controls during site clearance works that could result in the killing and injury of reptiles.
  5. Undertaking surveys prior to the commencement of any works where required to ensure current site conditions are evaluated, and developing and implementing mitigation measures and licences for protected species.
  6. Undertaking offsite mitigation to ensure a minimum 10% river biodiversity net gain is secured to inform the provision of an updated biodiversity net gain metric as the scheme is developed.

### Conditions

- 2.5. A number of conditions have been identified from the review that should be imposed should the scheme be given planning permission. These are included in Section 3 of this report and cover the following:
1. Construction Environmental Management Plan (CEMP) (Biodiversity)
  2. Handover Environmental Management Plan (HEMP)
  3. Landscape and Ecological Management Plan (LEMP)
  4. Lighting Scheme
  5. Protected Species
  6. Protected Species Licensing
  7. Biodiversity Net Gain.

### Landscape (Section 4)

- 2.6. The LVIA presents a reasonable assessment of the potential effects of the scheme on landscape character and visual amenity.
- 2.7. The scheme passes through a mixed semi-rural and rural landscape with farmland fragmented by industrial uses, business parks, landfill and gravel workings and crossed by transport corridors and



transmission lines connecting to Didcot B Power Station in the south of the site. The 'green corridor' of the River Thames and the landscape to the north of Clifton Hampden are areas of higher local landscape quality and sensitivity.

- 2.8. Existing planting determines the degree of enclosure and screening across this relatively flat to slightly undulating landscape. The landscape includes some woodland cover including planting on settlement boundaries, along public rights of way (PRoW), roads including the A4130 and the Great Western Railway (GWR) mainline and Cherwell valley line. It is mainly characterised by hedgerows and mature field and hedgerow trees on field boundaries with watercourses including the River Thames fringed with trees and riparian vegetation. The Thames Path National Trail follows the north bank of the River Thames. Mature planting around the Culham Science Centre and tree belts around Clifton Hampden and around Nuneham Courtenay increases the sense of enclosure to the north.
- 2.9. It is noted that some landscape and visual receptors would experience significant adverse effects during construction and upon initial completion, with localised visual receptor groups retaining significant adverse effects on their visual amenity at year 15. These localised areas are around Appleford-on-Thames, along the River Thames 'Green Corridor', at the CSC entrance and the area around Clifton Hampden, partly due to the initial loss of existing vegetation but largely due to the presence of new infrastructure in the view. The receptors are mainly public rights of way users who would experience transient views, but do also include residents.
- 2.10. It is considered that the proposed scheme does not achieve the aims of the Didcot Garden Town Delivery Plan (DGTDP), or align with planning policy in the NPPF Paragraph 131, VoWHDC Local Plan policy 37 (Design and local Distinctiveness), policy 44 (Landscape) and policy 45 (Green Infrastructure) nor with SODC Local Plan policy ENV1 (Landscape and Countryside), policy DES1 (Delivering High Quality Development) and policy DES2 (Enhancing Local Character). This is mainly due to the localised adverse effects caused by loss of vegetation and general issues around the design of embankments, bridges and attenuation ponds, with several missed opportunities for enhancement measures and general issues around the design of embankments, bridges and attenuation ponds.
- 2.11. This means that scheme design should be reviewed to include localised adjustments, to reduce the loss and maximise the retention of individual mature trees, groups of trees, and hedges and to provide more extensive replacement planting of trees and hedgerows across the scheme, including:
1. CSC entrance roundabout area: Review the location, extent and layout to avoid unnecessary and unacceptable loss of extensive numbers of mature trees which currently provide important screening and amenity functions in this area.
  2. Increase the extent of new planting for both mitigation and enhancement measures, especially hedgerows with trees to the widened A4130, and elsewhere, to better reflect the aspirations of DGTDP as a "super green town prioritising green infrastructure".
  3. Ensure mitigation measures for individual visual receptors close to the scheme are fully considered, ie Hill Farm.
  4. Bridge design options to be discussed and agreed with relevant statutory consultees looking to comply better with the aspirations of the DGTDP.
  5. Reconsider the gradient of embankments to provide better integration into the landscape and more opportunities for planting.
  6. Address the design of each acoustic barrier; explore use of earthworks, living walls and denser adjacent planting.
  7. Explore planting opportunities in small areas of left-over space, such as around balancing ponds, to better integrate these features and the scheme.
  8. Minimise the appearance of maintenance tracks to balancing ponds with grasscrete or similar products that allow grass to growth through.
  9. Extensive location specific recommendations in line with the above have been provided by SODC landscape officer and these should be fully considered in the design development.
- 2.12. It is also recommended that prior to construction:
1. The location, extent and layout of compounds is carefully considered to avoid unnecessary loss or damage to hedgerows and trees.



## Conditions

- 2.13. A number of conditions have been identified from the review that should be imposed should the scheme be given planning permission. These are included in Section 4 of this report and cover the following:
1. Detailed landscaping scheme
  2. Implementation of approved landscaping scheme
  3. Protection of retained vegetation.
  4. External Lighting.
  5. Landscape and Ecology Management Plan
  6. Construction Environmental Management Plan (Landscape)
  7. Handover Environmental Management Plan.

## Arboriculture (Section 5)

- 2.14. The Arboricultural Impact Assessment (AIA) report and supporting plans prepared by the applicant have been developed in line with *British Standard 5837:2012 Trees in relation to design, demolition, and construction – Recommendations* (BS5837) BS and are considered suitable to support the planning application.
- 2.15. Trees are a material consideration in planning decisions and associated planning policies seek for the retention of higher quality trees.
- 2.16. The extent of tree removals is detailed within the summary tables provided in section 5 of the AIA.
- 2.17. The scheme design will result in the loss of individual trees and tree groups across a total combined area of 12.04 ha. The vast majority of removals are moderate quality (BS Category B) or low quality (BS Category C), with a single high quality (BS Category A) individual tree identified for removal.
- 2.18. One veteran tree (T424) lies within the scheme boundary, the protection and retention of which is acknowledged to be of paramount importance to the detailed engineering design.
- 2.19. Across remaining BS Categories there is a significant loss of canopy cover. The overall area of tree clearance measures 12.04ha, with 7.01ha of replacement planting at year 1, which equates to an approximate 40% nett loss in tree cover. The Applicant estimates a potential increase in canopy cover area after a 10 year period equating to an increase of 3.66ha compared with the area of tree removals for the scheme, although this cannot be considered guaranteed.
- 2.20. Hedgerow removals are quantified at 5.67km, with replacement hedge planting totalling 3.84km.
- 2.21. Further trees losses may result once tree positions and their associate Root Protection Areas (RPA) are confirmed on site. Additional unknowns include third party ownership, trees identified for removal outside the redline boundary, the impact of part removal on remaining tree groups, and the cumulative impact of ash die back.
- 2.22. The Applicant has sought to limit the impacts on high amenity value trees (Cat A) with only one such tree identified for removal (this being tree T534 which has been identified for further survey to confirm its position by the Applicant). This complies with local planning policies through the retention and protection of high amenity value trees. The retention of the veteran tree T424 complies with National and local planning policies. However, the buffer zone encroachment needs to be resolved and conditioned. The impacts on TPOs and Conservation Area trees has been highlighted and these need to be reduced in line with recommendations and proposed conditions.
- 2.23. It is acknowledged that the constraints of the redline boundary limit the area available for replacement planting and therefore all opportunities to retain existing vegetation and maximise new planting should be taken as part of design development. The introduction of species other than ash will be seen as a benefit for the locality given the presence of ash dieback.
- 2.24. The Applicant refers to enhancement works as part of their BNG calculations. This enhancement of existing retained groups of trees would be seen as beneficial, however, details of these works would need to be confirmed and agreed with the LPA prior to the commencement of the works.
- 2.25. In conclusion, the scheme design should be reviewed to include localised adjustments to the designs to retain or reduce the impacts on trees. These include:



1. Removing any proposals from the buffer zone around the veteran tree T424 and present the updated designs for review by OCC.
2. Reviewing the designs that currently impact on the TPO trees between the entrance to CSC and Culham Railway Station which are subject to a Tree Preservation Order (TPO) number 137/2009.
3. Reviewing the designs that currently impact trees that fall within the Clifton Hampden Conservation Area.

## Conditions

2.26. A number of conditions have been identified from the review that should be imposed should the scheme be given planning permission. These are included in Section 5 of this report and cover the following:

1. Tree Survey
2. Arboricultural Method Statement (AMS)
3. Clerk of Works Supervision
4. Tree Risk Management Strategy
5. Consultation
6. CAVAT analysis
7. Construction Environmental Management Plan (Arboriculture).

## Climate Emissions (Section 6)

2.27. An assessment of the impact of the development on climate in terms of potential emissions has been completed by the applicant and is considered suitable to support the planning application.

2.28. The assessment has shown that overall the scheme is expected to have an overall carbon saving as a result of a reduction in traffic congestion. This reduction in emissions is in line with national, regional and local policy, specifically the climate act, the transport decarbonisation plan, the NPPF, the LTCP, and the Climate Action Plans for VoWHDC and South Oxfordshire, as well as VoWHDC's Core Policy 43, and South Oxfordshire's policies DES 7 and 8. It is therefore considered unlikely that the scheme will have a significant adverse effect on climate.

2.29. The Applicant notes in the Climate Positive Statement provided in the Regulation 25 Response that the scheme is also expected to encourage modal shift to cycling and walking which is in line with VoWHDC's Core Policies 33 and 35 and OCC LTCP.

### **Recommendation: No objection subject to conditions.**

2.30. It is recommended that there is no objection for climate emissions subject to the conditions in Section 6 of this report that should be imposed and require traffic monitoring and the production of a carbon management plan in accordance with PAS 2080 prior to construction, to ensure options to reduce carbon are taken into account in line with local policy and the West Oxfordshire climate change strategy.

## Climate Vulnerability (Section 6)

2.31. An assessment of the vulnerability of the scheme to climate change has been completed by the applicant and is considered suitable to support the planning application.

2.32. Although it is not fully evidenced by the applicant in the assessment, it is expected that significant climate vulnerability impacts would be avoided on this scheme by good design practice and adherence to appropriate standards to ensure compliance with the policy set out at the beginning of Section 6 of this report. The conditions imposed will provide confidence that the applicant has included mitigation to avoid significant climate vulnerability impacts.

### **Recommendation: No objection subject to conditions securing appropriate mitigation**

2.33. A risk assessment should be prepared by the lead designer to include mitigation details listed separately for each potential impact by climate hazard as well as mitigation for potential extreme weather events that could affect construction (assets, construction processes and construction workers) must be included within the Code for Construction Practice.



## Agriculture and Soils (Section 7)

- 2.34. An assessment of potential impacts on soil resources, agricultural land and agricultural land holdings has been completed by the applicant. The assessments are compliant with legislation and policy and mostly reflect assessment guidelines considered suitable to support the planning application. The Scoping Opinion and Responses in Chapter 11, Table 11.1 of the ES relating to the loss of Best and Versatile (BMV) land have been addressed.
- 2.35. It is noted that no comments were received from other consultees on the planning application and Regulation 25 response concerning impacts of the proposed scheme on agricultural land and holdings.
- 2.36. Whilst the assessments of the impact of the scheme on agricultural holdings is considered to be sufficiently detailed to support this planning application, it is considered that the applicant has overestimated the residual effect assigned to two of the farms, which would be substantially less if the correct thresholds are applied.
- 2.37. Taking this into consideration, and the assumption that substantially less BMV and agricultural land is impacted than the applicant has estimated in their assessment as indicated above, it is recommended that there is no objection subject to conditions. This is noting that it is acknowledged for a linear infrastructure scheme of this nature that engineering considerations of agricultural land impacts usually make it impractical to change the route alignment to avoid areas of BMV land.  
**Recommendation: No objection subject to conditions.**
- 2.38. The condition for agriculture in section 7 of this report should be imposed to ensure land temporarily acquired during construction and not required for soft landscaping will be restored to its original capability.



## 3. Biodiversity

### Key planning application documents referred to as part of the review (not an exhaustive list)

3.1. The following documents have been referred to as part of the review by an ecological specialist with more than 25 years' experience within the ecological consultancy industry who is also a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM):

- Didcot Garden Town HIF 1 Scheme, Environmental Statement Non-Technical Summary, September 2021;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume I, Chapter 9 – Biodiversity, September 2021;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume II, Chapter 9: Biodiversity – Figures, September 2021;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.1: Preliminary Ecological Appraisal Report, September 2020;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.2: Survey Report for Hedgerows and Arable Plants, February 2021;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.3: Terrestrial Invertebrate Survey Report, December 2020;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.4: Aquatic Ecology Survey Report, April 2021;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.5: Reptile Survey Report, January 2021
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.6: Great Crested Newt Survey Report, September 2020;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.7: Breeding Birds Survey Report, October 2020;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.8: Wintering Bird Survey Report, May 2020;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.9: Bat Survey Report, August 2021;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.10: Dormouse Survey Report, November 2020;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement Volume III, Appendix 9.11: Otter and Water Vole Survey Report, August 2021;
- Didcot Garden Town HIF 1 Scheme, Biodiversity Net Gain Assessment, September 2021;
- Didcot Garden Town HIF 1 Scheme, Environmental Statement, Preliminary Ecological Mitigation Plan, September 2021;
- Didcot Garden Town HIF 1 Scheme, Habitats Regulations Assessment: No Likely Significant Effects Report, October 2022;
- Didcot Garden Town HIF 1, Biodiversity Net Gain Assessment, Oxfordshire County Council, October 2022;
- Didcot Garden Town HIF1 Scheme, Environmental Statement Addendum, Oxfordshire County Council, October 2022;
- Didcot Garden Town HIF 1 Scheme, EIA Regulation 25 Response, Oxfordshire County Council, November 2022;
- REVISED, Didcot Garden Town HIF 1 Scheme, Outline Landscape & Biodiversity Management Plan (OLBMP), October 2022.



## Suitability of Assessment

- 3.2. A suite of ecological surveys and assessments has been undertaken and reported in the Biodiversity chapter of the Environmental Statement and the Habitats Regulations Assessment. The assessments have been undertaken in accordance with the Design Manual for Roads and Bridges (LA 108 , LA 104 , LA 105 , LD 118 and LA115 ) and the CIEEM guidelines .
- 3.3. The Biodiversity Assessment is considered suitable to support the planning application.

## Relevant Policy

- 3.4. A summary of policies relevant to biodiversity is provided below.

### National Planning Policy Framework

- 3.5. The National Planning and Policy Framework (NPPF) updated in July 2021 identifies the following policies and objectives relevant to biodiversity and the proposed development:
- 3.6. Chapter 15: Conserving and enhancing the natural environment - requires that planning policies and decisions should contribute to and enhance the natural and local environment, including: protecting sites of biodiversity value commensurate with their statutory status (para 174(a)), securing measurable net gains for biodiversity (para 174(b)), ensuring significant harm to biodiversity resulting from development is avoided, mitigated or compensated for (para 180(a)), and improving biodiversity integrating in and around developments should be integrated as part of their design (para 180(d)).

### Local Planning Policy and Guidance

#### The South Oxfordshire District Council (SODC) Local Plan 2035

- 3.7. Policies relevant to biodiversity include the following:
- Policy ENV1: Landscape and Countryside
    1. *South Oxfordshire's landscape, countryside and rural areas will be protected against harmful development. Development will only be permitted where it protects and, where possible enhances, features that contribute to the nature and quality of South Oxfordshire's landscapes, in particular:*
      - i. *trees (including individual trees, groups of trees and woodlands), hedgerows and field boundaries;*
      - ii. *irreplaceable habitats such as ancient woodland and aged or veteran trees found outside ancient woodland;*
      - iii. *the landscapes, waterscapes, cultural heritage and user enjoyment of the River Thames, its tributaries and flood plains;*
      - iv. *other watercourse and water bodies;*
      - v. *the landscape setting of settlements or the special character and landscape setting of Oxford;*
      - vi. *topographical features;*
      - vii. *areas or features of cultural and historic value;*
      - viii. *important views and visually sensitive skylines; and*
      - ix. *aesthetic and perceptual factors such as tranquillity, wildness, intactness, rarity and enclosure.*
    4. *The Council will seek the retention of important hedgerows. Where retention is not possible and a proposal seeks the removal of a hedgerow, the Council will require compensatory planting with a mixture of native hedgerow species.*
  - Policy ENV2: Biodiversity - Designated Sites, Priority Habitats and Species
    1. *The highest level of protection will be given to sites of international nature conservation importance (Special Areas of Conservation). Development that is likely to result in a significant effect, either alone or in combination, on such sites will need to satisfy the requirements of the Conservation of Habitats and Species Regulations 2017 (as amended).*
    2. *Sites of Special Scientific Interest (SSSI) are of national importance. Development that is likely to have an adverse effect on a SSSI (either on its own or in combination with other developments) will only be permitted in exceptional circumstances, where it can be*



- demonstrated that the benefits of the development in the location proposed clearly outweigh any harm to the special interest features and the SSSI's contribution to the local ecological network. In such circumstances, measures should be provided (and secured through planning conditions or legal agreements) that would mitigate or, as a last resort, compensate for the adverse effects resulting from development.*
3. *Development likely to result, either directly or indirectly to the loss deterioration or harm to:*
    - *Local Wildlife Sites;*
    - *Local Nature Reserves;*
    - *Priority Habitats and Species;*
    - *Legally Protected Species;*
    - *Local Geological Sites;*
    - *Ecological Networks (Conservation Target Areas);*
    - *Important or ancient hedges or hedgerows;*
    - *Ancient woodland and veteran trees.*

*Will only be permitted if:*

    - i. the need for, and benefits of the development in the proposed location outweigh the adverse effect on the interests;*
    - i. it can be demonstrated that it could not reasonably be located on an alternative site that would result in less or no harm to the interests; and*
    - ii. measures will be provided (and secured through planning conditions or legal agreements), that would avoid, mitigate or as last resort, compensate for the adverse effects resulting from development.*
  4. *Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) will be refused planning permission, unless there are wholly exceptional reasons justifying the granting of planning permission.*
  5. *Where development has the potential to affect a proposed wildlife site the developer must undertake surveys and assessments to determine whether the site meets the criteria for Local Wildlife Site status.*
    - **Policy ENV3: Biodiversity**
      1. *Development that will conserve, restore and enhance biodiversity in the district will be supported. All development should provide a net gain in biodiversity where possible. As a minimum, there should be no net loss of biodiversity. All proposals should be supported by evidence to demonstrate a biodiversity net gain using a recognised biodiversity accounting metric.*
      2. *Development proposals which would result in a net loss of biodiversity will only be considered if it can be demonstrated that alternatives which avoid impacts on biodiversity have been fully explored in accordance with the mitigation hierarchy\*. In the absence of alternative sites or layouts, development proposals must include adequate mitigation measures to achieve a net gain of biodiversity. Where harm cannot be prevented or adequately mitigated, appropriate compensation measures will be sought, as a last resort, through planning conditions or planning obligations (depending on the circumstances of each application) to offset the loss by contributing to appropriate biodiversity projects to achieve an overall net gain for biodiversity.*
      3. *Planning permission will only be granted if impacts on biodiversity can be avoided, mitigated or, as a last resort, compensated fully.*
    - **Policy ENV4: Watercourses**
      1. *Development of land that contains or is adjacent to a watercourse must protect and where possible, enhance the function and setting of the watercourse and its biodiversity. As a last resort development should provide mitigation for any unavoidable impacts.*
      2. *Development should include a minimum 10m buffer zone along both sides of the watercourse to create a corridor favourable to the enhancement of biodiversity. Where a 10m wide buffer zone is not considered possible by the local planning authority, (for example in dense urban areas where existing development comes closer to the watercourse) a smaller buffer zone may be allowed but should still be accompanied by detailed plans to show how the land will be used to promote biodiversity and how maintenance access to the watercourse will be created. Wherever possible within settlements a minimum 10m buffer should be maintained.*



3. *Proposals should avoid the culverting of any watercourse. Opportunities taken to remove culverts will be supported.*
  4. *Outside settlements, proposals for mooring stages will not be permitted. Proposals for posts, earthworks or facing riverbanks with piles and planking will not be permitted except under exceptional circumstances and in agreement with the Environment Agency. Where it is necessary to protect a riverbank from erosion, the protective measures must be designed to maintain and enhance the special character of the river and its environment, including its biodiversity.*
  4. *Major development proposals which are located within 20m of a watercourse will require a Construction Management Plan to be agreed with the Council before commencement of work to ensure that the watercourse will be satisfactorily protected from damage, disturbance or pollution.*
  5. *Sites for new development with existing culverts will be expected to investigate the feasibility of de-culverting the watercourse. Where bridges are proposed as an alternative to culverting, the construction method should take into account the importance of maintaining an obstruction free bank for wildlife.*
- **Policy ENV5: Green Infrastructure in New Developments**
    1. *Development will be expected to contribute towards the provision of additional Green Infrastructure and protect or enhance existing Green Infrastructure.*
    2. *Proposals should:*
      - i. *protect, conserve or enhance the district's Green Infrastructure;*
      - ii. *provide an appropriate level of Green Infrastructure with regard to requirements set out in the Green Infrastructure Strategy, AONB Management Plan or the Habitats Regulations Assessment;*
      - iii. *avoid the loss, fragmentation, severance or other negative impact on the function of Green Infrastructure;*
      - iv. *provide appropriate mitigation where there would be an adverse impact on Green Infrastructure; and*
      - v. *provide an appropriate replacement where it is necessary for development to take place on areas of Green Infrastructure.*
    3. *All Green Infrastructure provision should be designed with regard to the quality standards set out within the Green Infrastructure Strategy, or where relevant the Didcot Garden Town Delivery Plan. Consideration should also be given to inclusive access and contributing to gains in biodiversity, particularly through the use of appropriate planting which takes account of changing weather patterns. Where new Green Infrastructure is provided, applicants should ensure that appropriate arrangements are in place to ensure its ongoing management and maintenance.*
  - **Policy ENV12: Pollution - Impact of Development on Human Health, the Natural Environment and/or Local Amenity (Potential Sources of Pollution)**
    1. *Development proposals should be located in sustainable locations and should be designed to ensure that they will not result in significant adverse impacts on human health, the natural environment and/or the amenity of neighbouring uses*
    2. *The individual and cumulative impacts of development on human health, the natural environment and/or local amenity will be considered when assessing development proposals.*
    3. *The consideration of the merits of development proposals will be balanced against the adverse impact on human health, the natural environment and/or local amenity, including the following factors:*
      - *noise or vibration;*
      - *smell, dust, odour, artificial light, gases and other emissions;*
      - *air pollution, contamination of the site or its surroundings and hazardous substances nearby;*
      - *land instability; and*
      - *any other relevant types of pollution.*



Vale of White Horse Local Plan 2031 Part 1 Strategic Sites and Policies

3.8. Policies relevant to biodiversity include the following:

- Core Policy 37: Design and Local Distinctiveness

*All proposals for new development will be required to be of high quality design that:*

*v. incorporates and/or links to high quality Green Infrastructure and landscaping to enhance biodiversity and meet recreational needs, including Public Rights of Way.*

- Core Policy 45: Green Infrastructure

*A net gain in Green Infrastructure, including biodiversity, will be sought either through on-site provision or off-site contributions and the targeted use of other funding sources. A net loss of Green Infrastructure, including biodiversity, through development proposals, will be resisted.*

*Proposals for new development must provide adequate Green Infrastructure in line with the Green Infrastructure Strategy. All major applications must be accompanied by a statement demonstrating that they have taken into account the relationship of the proposed development to existing Green Infrastructure and how this will be retained and enhanced. Proposals will be required to contribute to the delivery of new Green Infrastructure and/or the improvement of existing assets including Conservation Target Areas in accordance with the standards in the Green Infrastructure Strategy and the Habitats Regulations Assessment.*

- Core Policy 46: Conservation and Improvement of Biodiversity

3.9. Development that will conserve, restore and enhance biodiversity in the district will be permitted. Opportunities for biodiversity gain, including the connection of sites, large-scale habitat restoration, enhancement and habitat re-creation will be actively sought, with a primary focus on delivery in the Conservation Target Areas. A net loss of biodiversity will be avoided.

3.10. The highest level of protection will be given to sites and species of international nature conservation importance (Special Areas of Conservation and European Protected Species). Development that is likely to result in a significant effect, either alone or in combination, on such sites and species will need to satisfy the requirements of the Habitat Regulations\*.

3.11. Development likely to result in the loss, deterioration or harm to habitats or species of importance to biodiversity or of importance for geological conservation interests, either directly or indirectly, will not be permitted unless:

- the need for, and benefits of, the development in the proposed location outweighs the adverse effect on the relevant biodiversity interest;*
- it can be demonstrated that it could not reasonably be located on an alternative site that would result in less or no harm to the biodiversity interests; and*
- measures can be provided (and are secured through planning conditions or legal agreements), that would avoid, mitigate against or, as a last resort, compensate for, the adverse effects likely to result from development.*

*The habitats and species of importance to biodiversity and sites of geological interest considered in relation to points i) to iii) comprise:*

- *Sites of Special Scientific Interest (SSSI);*
- *Local Wildlife Sites;*
- *Local Nature Reserves;*
- *Priority Habitats and species listed in the national and local Biodiversity Action Plan;*
- *Ancient Woodland and veteran trees;*
- *Legally Protected Species;*
- *Locally Important Geological Sites.*

*The level of protection and mitigation should be proportionate to the status of the habitat or species and its importance individually and as part of a wider network.*

*It is recognised that habitats/areas not considered above (i.e. Nationally or Locally designated and not priority habitats) can still have a significant biodiversity value within their local context, particularly where they are situated within a Conservation Target Area and/or they have good potential to be restored to priority habitat status or form/have good potential to form links between*



*priority habitats or act as corridors for priority species. These habitats will be given due weight in the consideration of planning applications. If significant harm to these sites cannot be avoided (through locating on an alternative site with less harmful impacts) it will be expected that mitigation will be provided to avoid a net loss in biodiversity or, as a last resort, compensation will be required to offset the impacts and achieve a net gain in biodiversity.*

### Vale of White Horse Local Plan 2031 Part 2 Detailed Policies and Additional Sites

3.12. Policies relevant to biodiversity include the following:

- Development Policy 25: Noise Pollution

#### *Noise-Generating Development*

*Noise-generating development that would have an impact on environmental amenity or biodiversity will be expected to provide an appropriate scheme of mitigation that should take account of:*

- the location, design and layout of the proposed development;*
- existing levels of background noise;*
- measures to reduce or contain generated noise, and*
- hours of operation and servicing.*

- Development Policy 30: Watercourses

*Development of land that contains or is adjacent to a watercourse will only be permitted where it would not have a detrimental impact on the function or setting of the watercourse or its biodiversity, or the detrimental impact can be appropriately mitigated.*

*Plans for development adjacent to or encompassing a watercourse should include a minimum 10 m buffer zone along both sides of the watercourse to create a corridor of land and water favourable to the enhancement of biodiversity.*

*Proposals which involve culverting a watercourse are unlikely to be considered acceptable.*

*Development which is located within 20 m of a watercourse will require a construction management plan to be agreed with the Council before commencement of work to ensure that the watercourse will be satisfactorily protected from damage, disturbance or pollution.*

## Context and Assessment with Commentary

### European Designated Sites

3.13. Little Wittenham Special Area of Conservation (SAC) is located approximately 3.1 km to the south east of the scheme and Cothill Fenn SAC is located approximately 6.7 km to the north west of the scheme.

3.14. It is considered that the OCC Competent Authority's Habitats Regulations Assessment (HRA) Screening concurs with the applicant's HRA Stage 1 Screening and conclusions that owing to the limited affected road network and the lack of potential pollution pathways that there will be no likely significant effects alone or in combination on the Little Wittenham SAC and Cothill Fen SAC.

**Conclusion: No objection.**

### Protected Species

3.15. A series of protected and notable species surveys have been undertaken by Aecom to inform the assessment of ecological impacts of the scheme. Further details are provided within the sections below.

#### Great Crested Newts

3.16. A combination of Habitat Suitability Index (HSI) assessments, environmental DNA, and standard field survey techniques were used to determine the presence or likely absence of great crested newts. A population of great crested newts was recorded at Sutton Courtenay Environmental Education Centre located approximately 0.4 km from the scheme, however, there is poor connectivity between the education centre site and the scheme and no great crested newts were recorded in waterbodies between the education centre site and scheme.

3.17. Great crested newts have also been recorded at Thames Clifton to Shillingford Conservation Target Area (CTA), located approximately 0.4 km from the scheme at its closest point. However, the



scheme is separated from the CTA site by A-roads which may act as a barrier to great crested newt movement and the waterbodies in which the great crested newts were recorded are in excess of 0.5 km from the scheme.

- 3.18. Therefore, based on the desk study and survey data, great crested newts were considered likely absent and not considered further within the assessment.

#### Bats

- 3.19. Eight bat roosts in buildings and three bat roost in trees, consisting of day, night, and feeding roosts used by small (1-7 individuals) numbers of common and widespread species of bat were recorded. Therefore, a European Protected Species Mitigation Licence will be required in order for works to proceed lawfully.

#### Hazel Dormice

- 3.20. The data search returned no records of hazel dormice within the study area and no evidence of hazel dormice was recorded during the surveys. Therefore, based on the desk study and survey data, hazel dormice were considered likely absent and not considered further within the assessment.

#### Otters

- 3.21. No active otter resting sites were recorded within the scheme boundary, but potential otter resting sites (including potential holts) were recorded on the River Thames and Moor Ditch. Where watercourses are crossed, culverts will need to be designed to maintain mammal connectivity.

#### Water Voles

- 3.22. Records of water voles were identified approximately 300 m and 500 m from the scheme. A total of four watercourses, considered suitable to support water voles, were surveyed with no evidence of water voles recorded. Therefore, based on the desk study and survey data, water voles were considered likely absent and not considered further within the assessment.

#### Badgers

- 3.23. Several badger setts will be lost to the scheme; therefore a Natural England badger mitigation licence will be required along with appropriate mitigation, including the construction of two artificial setts.

#### Birds

- 3.24. Breeding and wintering bird habitat will be lost to the scheme and, therefore, appropriate mitigation will be required.

#### Reptiles

- 3.25. Low numbers of common lizards and grass snakes were recorded in two locations during the surveys. Without appropriate controls, site clearance works could result in the killing and injury of reptiles. Mitigation measures will be implemented.

#### Terrestrial Invertebrates

- 3.26. Terrestrial Invertebrate surveys were undertaken based on desk study and walkover survey data. Isolated pockets of notable invertebrates were identified. Mitigation measures will be implemented.

#### All Surveys

- 3.27. The surveys undertaken to date are considered appropriate and in line with current guidance to inform the assessment. Where survey data is in excess of two years old, updated protected species and habitat surveys will be required prior to the commencement of any works to ensure current site conditions are evaluated. All species surveys will need to be updated, not limited to those mentioned above.
- 3.28. To reflect any changes in habitat composition or condition, an updated biodiversity net gain metric must be provided.



**Conclusion: Updated surveys will need to be undertaken, mitigation measures and appropriate licences will be required. A series of conditions will be required to ensure adherence.**

### Protected Species Licences

- 3.29. The biodiversity assessment has concluded that derogation licences will be required in relation to bats and badger.
- 3.30. The scheme will result in the loss and/or potential disturbance of eight bat roosts in buildings and three bat roost in trees supporting low numbers of bats and considered to be of low importance subject to the design development and pre-construction surveys. Therefore, in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended) a European Protected Species Mitigation Licence will be required in order for works to proceed lawfully which will include appropriate mitigation.
- 3.31. The scheme will result in the loss of badgers including two main setts subject to the design development and pre-construction surveys. As such in accordance with the Protection of Badgers Act 1992 a derogation licence from Natural England will be required and will include how and when setts can be closed and the creation of two new artificial setts.

### Biodiversity Net Gain

#### Terrestrial Habitats and Hedgerows

- 3.32. Data collected as part of the extended Phase 1 habitat survey was converted to UK Habitat Classification before being inputted into the Defra 3.1 Biodiversity Net Gain (BNG) metric calculator. The metric confirmed that the scheme would result in an onsite net gain of +115.16 (+20.0%) habitat units and a +13.68 (+40.9%) net gain of hedgerow units, which is based on the creation of native species rich hedgerow a better value habitat and not a reflection of the physical increase in kilometres of new hedgerow planting.
- 3.33. The Environment Act (hereafter referred to as 'the Act') was given royal assent in November 2021. This Act makes provision about targets, plans and policies in relation to the environment – including Part 6 of the Act 'nature and biodiversity', which includes biodiversity net gain in planning. For England, plans include mandating a 10% BNG for development projects, including provision for habitat enhancements to be maintained for a period of at least 30 years. Currently no regulations have brought in to enforce the nature and biodiversity provisions of the Act. Currently the NPPF 2021 sets out the Government's planning policies for England and how these are expected to be applied by Local Authorities within their Local Development Frameworks (LDF). The NPPF (paragraph 174) states that development should provide biodiversity net gains and that they should be measurable (paragraph 179 (b)), although no minimal net gain requirement is set. With the implementation of onsite measures the applicant is reporting a positive increase across terrestrial, habitats, hedgerow units and river units.
- 3.34. The BNG assessment does not quantify how much land will be lost from the Hanson Quarry Restoration Area, including Finger Lakes. Currently the BNG assessment identifies the following baseline habitats within the Hanson Quarry Restoration Area and their baseline condition assessment:
- Grassland – other neutral (Poor – Moderate);
  - Lakes (Poor – Moderate);
  - Woodland – Other Woodland broadleaved (Moderate);
  - Wetland – Reedbeds (Poor – Good).
- 3.35. No detail has been provided as to the exact areas being lost from the Hanson Quarry Restoration Area and it is not evident from the information provided in the BNG assessment that it has included the habitats being lost or retained in the Hanson Quarry Restoration Area as being at their target condition. Therefore, further clarification will be required on whether the proposed design or BNG assessment has fully allowed for the value of these habitats or that the trading rules have been followed. This should include provision of the Biodiversity Metric spreadsheet and an accompanying plan to indicate where habitat losses and gains will occur.



**Conclusion: Clarification will be required to confirm that the BNG assessment has fully quantified the impacts on the Hanson Quarry Restoration Area.**

### River Units

- 3.36. A desk study was undertaken to identify river habitats present within the Site using the 'Discovering Priority Habitat in England' river data map. Habitat distinctiveness values were informed by the desk study, where priority habitat descriptions and River Naturalness Assessment class scores were available. Where this information was unavailable, River Naturalness Assessments were undertaken alongside River Condition Surveys (Modular River Physical (MoRPh) Survey). This follows the Natural England/DEFRA BNG guidance. It is noted that the requirement for survey of 20% total length of the watercourse within the redline boundary was not always obtained due to survey constraints. The assessment states:

*"where this condition could not be met, condition of the watercourse was determined by either applying surveyor judgement considering the sections of the watercourse that could be surveyed, or by employing the low-risk river condition assessment in areas where development would not take place within the 10m riparian zone".*

- 3.37. The BNG assessment identifies a 1.26% gain in River Biodiversity Units, however, this does not appear to take into account the potential watercourse enhancements on Meadow Brook outlined within the Water Framework Directive assessment. Nonetheless, the scheme does not demonstrate an achievement of 10% BNG in River Biodiversity Units. Therefore, offsite options will need to be identified.

**Conclusion: Although regulations which specify 10% biodiversity net gain are yet to be brought into force, they are understood to be imminent. Moreover, the South Oxfordshire District (SODC) Local Plan 2024 Policy ENV3 states that all development should provide a net gain in biodiversity where possible. Therefore, further information is required to identify offsite options to achieve a 10% net gain in river units.**

### Summary

- 3.38. The Biodiversity Assessment is considered suitable to support the planning application. The assessment has been informed by a number of protected and notable species surveys.
- 3.39. It is acknowledged that there will be some long-term impacts in respect of vegetation establishment, however overall it is accepted that impacts can be avoided and mitigated in line with the mitigation hierarchy and that biodiversity net gains can be achieved. However, clarification is required as to how the metric has been applied to the Hanson Quarry Restoration Area and how biodiversity net gain for river units is to be delivered.
- 3.40. Conditions will be required to make the development acceptable in planning terms to mitigate the adverse effects and to enhance the quality of the development. This recommendation is based on the following:
- The conclusion of the Habitats Regulations Assessment Stage 1 Screening that owing to the limited affected road network and the lack of potential pollution pathways that there will be no likely significant effects alone and in combination on the Little Wittenham SAC and Cothill Fenn SAC.
  - The requirement for a European Protected Species Mitigation Licence for bats.
  - The requirement for a Natural England badger mitigation licence along with appropriate measures including the construction of two artificial setts, to mitigate for the loss of several badger setts lost to the scheme.
  - The implementation of appropriate measures to mitigate for the loss of breeding and wintering bird habitat and isolated pockets of notable invertebrates, and appropriate controls during site clearance works that could result in the killing and injury of reptiles.
  - Undertaking surveys prior to the commencement of any works where required to ensure current site conditions are evaluated, and developing and implementing mitigation measures and licences for protected species.
  - Undertaking offsite mitigation to ensure a minimum 10% river biodiversity net gain is secured to inform the provision of an updated biodiversity net gain metric as the scheme is developed.



## Conditions

- 3.41. The conditions identified below are considered to be necessary to make the scheme development acceptable in planning terms to mitigate the adverse effects and to enhance the quality of the development.

### Construction Environmental Management Plan (CEMP) (Biodiversity)

- 3.42. **Condition:** No development shall take place (including ground works or vegetation clearance) until: A CEMP (Biodiversity) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include (not exhaustively) the following:

- a. Risk assessment of all activities that may be damaging to biodiversity both on and off-site;
- b. Identification of “biodiversity protection zones”;
- c. Implementation of protected species licences;
- d. Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts on species and habitats (species specific method statements for bats, breeding birds, and reptiles will be provided);
- e. Timing and scope of additional protected species surveys;
- f. Lighting scheme and safeguards for light-sensitive wildlife;
- g. No soil storage mounds should extend into root protection zones of hedges or trees;
- h. The location and timing of sensitive works to avoid harm to biodiversity features (such as badgers, bats, , otters, , reptiles and nesting birds);
- i. When a specialist ecologist needs to be present on site to oversee works;
- j. Responsible persons, roles and lines of communication;
- k. The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person; and
- l. Use of protective fences, exclusion barriers and warning signs.

The approved CEMP shall be adhered to and implemented throughout construction strictly in accordance with the approved details, unless otherwise agreed in writing by the Local Planning Authority.

**Reason:** To ensure that the development does not result in harm to biodiversity (The South Oxfordshire District Council (SODC) Local Plan 2034 policies ENV1, ENV2, ENV3, ENV4 & ENV12), (Vale of White Horse Core Polices 45, 46 and Development Policies 25 and 30), (NPPF paragraphs 170, 171, 174,175, 176 and 177).

### Handover Environmental Management Plan (HEMP)

- 3.43. **Condition:** Prior to the end of the construction phase, a Handover Environmental Management Plan will be prepared, adopted and integrated into the Principal Contractor’s overall Scheme Handover Environmental Management Plan (HEMP) and Construction Phase Health and Safety Plan and submitted to, and be approved in writing by, the Local Planning Authority.

The HEMP will be prepared in accordance with and include the information specified for the third iteration of an EMP as detailed in Appendix A table A3 of DMRB LA 120. (Highway’s England guidance as set out in the Design Manual for Roads and Bridges (DMRB).

### Landscape and Ecological Management Plan (LEMP)

- 3.44. **Condition:** A LEMP shall be submitted to, and be approved in writing by, the Local Planning Authority prior to commencement of site and offsite restoration and enhancement. The LEMP will cover all areas within the scheme boundary, including full details of the restoration of Construction Compound 9. The LEMP will also include details of all enhancement features. The content of the LEMP shall include the following:

- a. Description and evaluation of all features to be managed within the site;
- b. Ecological trends and constraints that might influence management;
- c. Aims and objectives of management;
- d. Appropriate management options for achieving aims and objectives;
- e. Prescriptions for management actions;
- f. Preparation of a work schedule;



- g. Details of ecological enhancements, including artificial roost features for bats and birds, hedgehog domes, invertebrate houses and other features of benefit to wildlife. Specifications and locations of all features are to be provided;
- h. Details of the body or organisation responsible for implementation of the plan; and
- i. Ongoing monitoring and remedial measures.

The LEMP shall also include details of the legal and funding mechanism(s) by which the long-term implementation of the plan will be secured and details of a 30-year habitat management programme.

The plan shall also set out (where the results from monitoring show that conservation aims and objectives of the LEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme. The approved plan will be implemented in accordance with the approved details.

**Reason:** To ensure the development results in biodiversity enhancement in accordance with NPPF paragraphs 170, 175 and NERC Act 2006.

### Lighting Scheme

- 3.45. **Condition:** No development shall take place until details of all proposed lighting are submitted to, and approved in writing by, the Local Planning Authority. The lighting scheme will include the location, height, type and direction of all light sources, including intensity of illumination. The lighting scheme will be designed to ensure light-sensitive wildlife are not disturbed and will be in accordance with Bat Conservation Trust and Institution of Lighting Professionals Guidance Note 08/18 'Bats and Artificial Lighting in the UK'.

Any lighting shall be installed in accordance with the approved lighting scheme and no additional lighting shall be permitted without prior consent in writing from the Local Planning Authority.

**Reason:** In the interests of visual amenity and to ensure no protected or notable species of conservation concern are disturbed (The South Oxfordshire District Council (SODC) Local Plan 2034 Policy ENV12).

### Protected Species

- 3.46. **Condition:** Protected species surveys shall be considered valid for no longer than two years from the date of survey (badger surveys no longer than six months). Notwithstanding the details hereby approved, prior to the commencement of the development, including any earth moving or vegetation clearance, the protected and notable species surveys noted in the Environmental Statement Volume I Chapter 9 Biodiversity and supporting documents shall be updated and submitted to, and approved in writing by, the Local Planning Authority.

**Reason:** The protection of notable and protected species and habitats in accordance with The Conservation of Species & Habitats Regulations 2017 (as amended), Wildlife and Countryside Act 1981 (as amended) and the Protection of Badgers Act 1992.

- 3.47. **Condition:** The mitigation measures detailed within the Environmental Statement Volume I Chapter 9 Biodiversity will be developed in conjunction with the updated survey data and submitted to, and approved in writing by, the Local Planning Authority prior to the commencement of the development.

**Reason:** The protection of notable and protected species and habitats in accordance with The Conservation of Species & Habitats Regulations 2017 (as amended), Wildlife and Countryside Act 1981 (as amended) and the Protection of Badgers Act 1992.

### Protected Species Licencing

- 3.48. **Condition:** Should updated surveys confirm the presence of any other protected species which may be harmed as a result of the scheme, an appropriate licence will also be required.

**Reason:** The protection of protected species and habitats in accordance with The Conservation of Species & Habitats Regulations 2017 (as amended).



### Biodiversity Net Gain

3.49. **Condition:** No development shall commence unless and until a final BNG assessment has been completed and no less than a 10% increase in biodiversity units above the baseline has been submitted to and approved in writing by the Local Planning Authority.

If it is not possible to deliver a 10% net gain through the scheme either agreement with third party landowner or a certificate confirming the agreement of an Offsetting Provider approved by the Local Planning Authority to deliver a Biodiversity Offsetting scheme of no less than 10% biodiversity units above the baseline will be submitted to, and approved in writing by, the Local Planning Authority. The finalised unit number and cost will be agreed following updated habitat assessment. The written approval of the Local Planning Authority shall not be issued before a written agreement has been reached or a certificate has been issued by the chosen Offsetting Provider. The details of the biodiversity enhancements shall be documented by the Offsetting Provider and issued to the Local Planning Authority for their records, with management guaranteed for a minimum of 30 years.

**Reason:** To compensate for the net loss of biodiversity resulting from the development by providing biodiversity enhancements off site (The South Oxfordshire District Council (SODC) Local Plan 2034 policies ENV3), (Vale of White Horse Core Polices 45, 46), (NPPF paragraphs 170 and 175).



## 4. Landscape and Visual Impacts

### Key planning application documents referred to as part of review (not exhaustive list)

- 4.1. The following documents have been referred to as part of the review by a team of chartered landscape architects with more than 30 years specialising in landscape and visual assessment:
1. Didcot Garden Town HIF1 Scheme, EIA Regulation 25 Response, Oxfordshire County Council dated November 2022, prepared by Aecom
  2. Further Information Provided as part of Regulation 25 Response Oct-Nov 22
    - a) Appendix V – Landscape Masterplan (19 drawings)
    - b) Appendix W – Revised AIA
    - c) Appendix R – BNG Assessment
    - d) Appendix Q – Acoustic Barrier Information
    - e) Appendix G – Oversized bridge examples
    - f) Revised Outline Landscape & Biodiversity Management Plan
    - g) Environmental Statement Addendum – Annex 4 Chapter 8 Landscape and Visual Impact
  3. ES Vol I Chp 8 Landscape and Visual Impact
  4. ES Vol II Chp 8.6 Visual Impact Assessment
  5. ES Vol II Chp 8 Landscape and Visual Figures.

### Suitability of Assessment

- 4.2. The Landscape and Visual Impacts Assessment (LVIA) is considered suitable to support the planning application. This is because:
- The LVIA considers the likely significant effects of the scheme, receptors (people and their existing views) and includes a qualitative lighting assessment of the operation phase. The assessment is based on the methodology set out in the DMRB LA 107<sup>2</sup> and Guidelines for Landscape and Visual Impact Assessment 3 (GLVIA3) as set out in the scoping report and agreed with the OCC, SODC and VoWHDC landscape officers between April - August 2020. The assessment also takes into consideration the consultation responses from other relevant Statutory consultees in the Scoping Opinion.
  - A Zone of Theoretical Visibility (ZTV) and fieldwork confirmed the extent of the study area in accordance with best practice. The study area is an irregular shape extending between 0.5 and 4km from the centre line of the scheme.
  - As part of the baseline, the LVIA refers to relevant policy and published national and regional landscape character assessments. Fieldwork has been undertaken by the applicant to verify these, and to identify and map local landscape character, where relevant, within the study area.
  - The ZTV and fieldwork were also used by the applicant to identify publicly accessible viewpoints. These viewpoints agreed in consultation with OCC and were considered representative of the range of people's views including residents and recreational users.
  - The assessment of likely impacts and effects on the landscape character and on people and existing views during construction and year 1 operation, are based on winter conditions and when the existing deciduous vegetation is not in leaf. The year 15 operation assessment is based on summer conditions.
  - The LVIA includes several photomontage visualisations of the proposed development, which superimpose a computer-generated image of the proposed development on an existing photograph (view) of the site. Photomontage production has been undertaken in accordance with Landscape Institute's Technical Guidance Note 06/19: Visual Representation of Development Proposals.

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<sup>2</sup> National Highways Design Manual for Roads and Bridges (DMRB) LA 107 Landscape and Visual Effects



## Relevant Policy

4.3. A summary of policies relevant to landscape and visual is provided below.

### National Planning Policy and Guidance

#### National Planning Policy Framework (NPPF 2021)

- 4.4. The NPPF updated in July 2021 identifies the following policies and objectives relevant to LVIA and the proposed development:
- Chapter 2: Achieving sustainable development - requires development to meet '*the needs of the present without compromising the ability of future generations to meet their own needs*', including: achieving the environmental objective of sustainable development and adapting to climate change (para 8(c)), and a presumption in favour of sustainable development (para 11(d)).
  - Chapter 8. Promoting healthy and safe communities – requires development to protect and enhance public rights of way (PRoW) and opportunities for better facilities and new linkages for users (para 100), and the application of Green Belt policies (Chapter 13) for managing Local Green Spaces (paras 101-103).
  - Chapter 9: Promoting Sustainable Transport – encourages safe, secure and attractive infrastructure design that responds to local character.
  - Chapter 11. Making effective use of land - requires planning policies to promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions and taking opportunities to achieve net environmental gains, such as developments that would enable new habitat creation or improve public access to the countryside.
  - Chapter 12. Achieving well-designed places – states 'Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities.' Planning decisions requires development to function well and add to the overall quality of the area, are visually attractive and sympathetic to local character and setting (para 130); focus on design quality and engagement with local planning authorities and communities (para 132); to take opportunities for improving the character of an area (para 134). The importance of street trees is highlighted in para 131 that also highlights the need of retaining existing street trees wherever possible and to secure long-term maintenance for new planted trees stating, 'Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.'
  - Chapter 13. Protecting Green Belt land – relates to the protection of and proposals affecting Green Belt land and Local Open Green Space.
  - Chapter 15: Conserving and enhancing the natural environment - requires that planning policies and decisions should contribute to and enhance the natural and local environment, including: para 174 (b) '*recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*' and para 175, which requires Plans to distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value and take a strategic approach to maintaining and enhancing networks of habitats and Green Infrastructure.

### Local Planning Policy and Guidance

#### South Oxfordshire District Council Local Plan 2011-2035

- 4.5. The South Oxfordshire District Council (SODC) Local Plan 2011-2035 adopted in December 2020 sets the vision, objectives and policy for SODC. The following policies are relevant to LVIA :
- Policy TRANS1b: Supporting Strategic Transport Investment and Policy TRANS3: Safeguarding of Land for Strategic Transport Schemes: which identify and support the scheme



and safeguard land for strategic highway improvements, such that the scheme is principally within an area safeguarded for highway infrastructure.

- Policy ENV1: Landscape and Countryside: which seeks to protect the landscape and scenic beauty of the North Wessex Downs AONB and its setting. The policy requires development proposals that could affect the special qualities of an AONB (including the setting of an AONB) to prepare a LVIA.

Policy ENV1 also seeks to protect the landscape, countryside and rural areas of South Oxfordshire from harmful development, with consideration to trees; hedgerows; irreplaceable habitats; the River Thames; other watercourses; the setting of settlements of special character; topographical features; areas of cultural and historic value; important views and skylines; and perceptual factors such as tranquillity and rarity. Supporting text for the policy states that significant weight will also be given to protecting non-designated landscapes, the countryside and green infrastructure assets from harm.

- Policy ENV5 Green Infrastructure in New Developments: which expects development to contribute towards the provision of additional Green Infrastructure and protect or enhance existing Green Infrastructure.
- Policy ENV8: Conservation Areas: which requires development within or in the setting of a conservation area to conserve or enhance its special interest, character, setting and appearance. This should take into account important views within, into or out of conservation areas.
- Policy ENV12: Pollution Impact of Development on Human Health, the Natural Environment and/or Local Amenity: which states that the consideration of the merits of development proposals will be balanced against the adverse impact on human health, the natural environment and/ or local amenity, including impacts of artificial light.
- Policy DES1: Delivering High Quality Development: which requires all new development to be of a high-quality design that uses land efficiently while respecting the existing landscape character and incorporating green and blue infrastructure
- Policy DES2: Enhancing Local Character: which requires all new development to be designed to reflect the positive features that make up the character of the local area, and physically and visually enhance and complement the surroundings. This should be informed by context analysis and take account of existing local character assessments
- Policy DES6: Residential Amenity: which states that development proposals should demonstrate that they will not result in significant adverse impacts on the amenity of neighbouring uses, with consideration to visual intrusion and external lighting.
- Policy STRAT3: Didcot Garden Town: Proposals for development within the Didcot Garden Town Masterplan Area will be expected to demonstrate how they positively contribute to the achievement of the Didcot Garden Town Masterplan Principles.

#### Vale of White Horse District Council Local Plan 2031 Part 1

4.6. The Vale of White Horse District Council (VoWHDC) Local Plan 2031 Part 1 (Ref 8.4) adopted in December 2016 provides the spatial strategy and policies for VoWHDC. The following policies are relevant to LVIA.

- Core Policy 17: Delivery of Strategic Highway Improvements within the South-East Vale Sub-Area: which safeguards land for strategic highway improvements within the South-East Vale Sub-Area, such that the scheme is principally within an area safeguarded for highway infrastructure
- Core Policy 33: Promoting Sustainable Transport and Accessibility: which promotes sustainable transport and accessibility and states that “The Council will work with Oxfordshire County Council and others to ... v.) ensure that transport improvements are designed to minimise any effects on the amenities, character and special qualities of the surrounding area, ...”
- Core Policy 37: Design and Local Distinctiveness: which supports design and local distinctiveness and states that “All proposals for new development will be required to be of high quality design”.



- Core Policy 44: Landscape: which seeks to protect the landscape of the Vale of White Horse from harmful development, and protect trees, important views and skylines, landscape settings, and tranquillity.
- Core Policy 45: Green Infrastructure: Proposals for new development must provide adequate Green Infrastructure in line with the Green Infrastructure Strategy.

#### [Vale of White Horse District Council Local Plan 2031 Part 2](#)

4.7. The VoWH District Council Local Plan 2031 Part 2 adopted in October 2019 provides additional development management policies for the Vale of White Horse District. The following policies are relevant to LVIA:

- Development Policy 21: External Lighting: which sets out measures to ensure that development involving external lighting is appropriately designed and located.
- Development Policy 23: Impact of Development on Amenity: which sets out measures to minimise the impact of development on neighbouring amenity.
- Development Policy 29: Settlement Character and Gaps: which sets out measures to ensure that proposals do not compromise important gaps between settlements.

### Neighbourhood Planning Policy

#### [Burcot and Clifton Hampden Neighbourhood Plan 2011-2034.](#)

4.8. The Parish of Burcot and Clifton Hampden published a pre-submission draft of their Neighbourhood Plan in November 2020. The plan is not yet adopted but will gain weight as it moves through the examination process to a referendum. The following policies are relevant to LVIA:

- Policy BCH6: Design Principles in Clifton Hampden: which states that development proposals will be supported, provided they sustain and enhance the distinctiveness of the village and where appropriate, the character and setting of the conservation area.
- Policy BCH9: Local Landscape Character: which states that the culturally and historically important local landscape character of the parish will be conserved and where possible enhanced.

4.9. Culham and Sutton Courtney have yet to publish draft neighbourhood plans.

### Existing Landscape Context

4.10. The topography of the Site is broadly flat to gently undulating as a result of its location within the Thames valley. The landscape rises gently across the north of the study area, as well as rising towards the North Wessex Downs in the east and south of the study area.

#### [A4130 widening](#)

4.11. From the A34 and Milton Gate business park in the west the A4130 heads east towards Didcot, adjacent to the Great Western Railway (GWR) mainline, which is on slight embankment at this location.

4.12. The A4130 itself is well vegetated by mature trees and hedgerows to either side but there are occasional glimpses through gaps in this vegetation to the landscape beyond.

4.13. To the south is a patchwork of agricultural fields of medium to small scale bordered by mature hedgerow with occasional trees; two PRow head off from the A4130 south between dense hedgerows. Most of this area is allocated within the VoWHDC Local Plan for strategic housing developments.

4.14. To the north is the Milton Park business area and the remnants of the former Didcot A Power Station, much of this land is allocated within the VoWHDC Local Plan for strategic employment sites.

#### [Science Bridge](#)

4.15. Just west of Sir Frank Williams Ave, the gateway to Didcot Garden Town, the scheme proposes a new bridge over the A4130, the Great Western Railway and Milton Road to create a connection



through the former Didcot A Power Station site to the A4130 Northern Perimeter Road at the business parks north of Didcot.

- 4.16. The GWR is less well vegetated on the northern side and the landscape here is much more industrialised with the remnants of the former Didcot A Power Station, large distribution centres, Didcot B Power Station and transmission lines. At the Northern Perimeter Road the character becomes more enclosed as the business parks and the A4130 are quite well vegetated. A PRoW heads north from the A4130 then west past the power station sites into Sutton Courtenay village.
- [Didcot to Culham River Crossing](#)
- 4.17. North of Didcot business parks, the landscape becomes generally split by the Cherwell Valley railway line.
- 4.18. East of the railway is a relative flat rural landscape, a patchwork of agricultural fields of varying scale bordered by mature hedgerow with occasional trees. PRoW connect generally north/south across this landscape, often through densely vegetated paths. The village of Appleford-on-Thames sits adjacent to the railway with existing vegetation providing a buffer and screening views.
- 4.19. West of the railway is a more fragmented landscape of working and former landfill sites, and gravel extraction areas and pits. These localised engineered alterations to the landform, including landfill, earthworks, bunds and embankments related to existing infrastructure and flood defences, and water bodies formed from disused gravel pits present an alteration from the underlying pattern of the Thames valley landform. The landscape is more open in character, but surrounding settlements at Sutton Courtenay and Appleford-on-Thames are quite well screened with dense vegetation to their borders. Access roads generally retain hedgerow verges and there are clusters of woodland blocks that give some sense of enclosure. The B4016 between Appleford-on-Thames and Culham is more open, allowing views onto adjacent fields and former mineral working sites towards the River Thames. PRoW generally use access roads connecting east-west across this area between Appleford-on-Thames and Sutton Courtenay.
- 4.20. The River Thames separates Culham and Clifton Hampden to the north of the river, from Sutton Courtenay, Appleford-on-Thames and Long Wittenham to the south of the river. The river is lined by mature trees and riparian vegetation, forming a green corridor. The Thames Path National Trail follows the north bank of the River Thames.
- [Clifton Hampden Bypass](#)
- 4.21. North of the River Thames and west of Culham Station the landscape is again more rural in character with large to medium sized fields. The area is more open with lower hedgerows and reduced tree cover.
- 4.22. Abingdon Road is slightly elevated in the west allowing longer range views across the landscape. The sense of enclosure returns at the entrance to Culham Science Centre as the road becomes more densely bordered with taller hedgerow.
- 4.23. CSC and the village of Clifton Hampden sit within an attractive rural landscape of mature agriculture fields and woodlands. The CSC entrance area has a parkland character, with landscaped mounds and mature trees. There are distinctive mature tree belts in field boundaries between Clifton Hampden and the CSC, with small woodland copses. Larger blocks of mature woodland are found across the elevated ridgeline of the North Wessex Downs to the north of Clifton Hampden at Nuneham Courtenay. The area therefore generally has a good sense of enclosure. There is a group of trees between the entrance to CSC and Culham Railway Station which are subject to a Tree Preservation Order (TPO). PRoWs criss-cross the area between CSC, Clifton Hampden and Nuneham Park.

## Designations

- 4.24. The Site is not within any statutory designated landscapes. The non-statutory Grade I listed Nuneham Courtenay registered park and garden lies on elevated land north of CSC and Clifton Hampden.

## Landscape Character

- 4.25. The relevant published national character areas, regional landscape character types (LCT) and landscape character areas are identified by the applicant in the LVIA and are listed below with their



associated management strategies and priorities to inform consideration of the proposed development.

National<sup>3</sup>

- 4.26. The scheme sits wholly with the following National Character Area:  
*NCA 108: Upper Thames Clay Vales*
- 4.27. The NCA covers an extensive area of low-lying land which is dominated by watercourses, including the River Thames and its tributaries, whilst there are also lakes associated with mineral extraction areas. Collectively these watercourses and lakes form important areas for wildlife and recreation. The NCA is noted by the published study for its major transport routes and patches of intensive industrial influence, including Didcot Power Station. There is little woodland cover, but hedgerows and mature field and hedgerow trees are a feature, and many watercourses are fringed with willow or poplar.
- 4.28. NCA 108 Statement of Environmental Opportunity 4 is considered relevant to the scheme and states: “*Realise sustainable development that contributes positively to sense of place and built heritage. Ensure adequate greenspace in association with all development and most importantly in growing settlements such as Aylesbury and Swindon. Create and manage greenspace to provide benefits for biodiversity, floodwater management, filtration of pollutants, tranquillity and recreation, and secure strategic access routes between town and country.*”

County<sup>4</sup>

- 4.29. OCC has prepared the Oxfordshire Wildlife and Landscape Study (OWLS) which identifies the following Landscape Character Types (LCT) and corresponding Landscape Character Areas (LCA) covered by the Site:  
*LCT Lowland Village Farmland with corresponding landscape character areas WH/20 Sutton Courtenay*  
*LCT River Meadowlands with corresponding landscape character area WH/1 Lower River Thames*  
*LCT Terrace Farmland with corresponding landscape character area WH/15 Culham*  
*LCT Vale Farmland with corresponding landscape character area WH/14 Clifton Hampden*  
*LCT Wooded Estatelands with corresponding landscape character area CR/15 Nuneham Park.*
- 4.30. For all LCT and associated landscape character areas, stated management strategies relevant to the proposed development include to conserve and enhance hedgerows, hedgerow trees and field patterns and safeguard the characteristic landscape of parklands, estates, woodlands, hedgerows and villages.

District<sup>5</sup>

*South Oxfordshire Landscape Assessment (SOLA) 2017*

- 4.31. In the SOLA the following LCAs and LCTs are identified across the Site:
- LCA 2 Nuneham Courtenay Ridge which encompasses:
    - LCT 9 Institutions
    - LCT 13 Open Farmed Hills and Valleys
    - LCT 15 Parkland and Estate Farmland; and
    - LCT 17 Semi-Enclosed Farmed Hills and Valleys.
- 4.32. Landscape guidelines to protect, conserve and enhance the landscape qualities of these areas include: maintenance of hedgerows, planting of new hedgerow trees, infill gappy hedges, minimise visual intrusion with judicious planting of characteristic tree and shrub species and promote planting of deciduous woodland blocks.  
*Vale of White Horse Landscape Assessment (VoWHDC LCA) 2017*

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<sup>3</sup> Natural England

<sup>4</sup> Oxfordshire Wildlife and Landscape Study (OWLS) 2004

<sup>5</sup> South Oxfordshire District Council Landscape Assessment, 2017



- 4.33. In the VoWHDC LCA the following LCAs and LCTs are identified across the Site:
- LCT Lower Vale Farmland which encompasses:
    - LCA VL6 North Didcot Lower Vale Farmland
    - LCA VL7 Appleford Lower Vale Farmland.
  - LCT River Floodplain which encompasses:
    - LCA RF9 Sutton Courtenay to Appleford Thames River Floodplain.
- 4.34. Landscape guidelines to protect, conserve and enhance the landscape qualities of these areas include: maintenance and restoration of hedgerows, encourage sustainable woodlands, promote responsible management of PROWs and maintain and enhance vegetated boundaries to transport corridors.

**Local Landscape Character Assessment**

- 4.35. The Applicant has defined 17 local landscape character areas (LLCA) in the LVIA, which are assessed in Appendix 8.5 and shown on Figure 8.14 in the ES. These reflect the County and District character areas whilst presenting a more detailed site focused assessment to inform the LVIA. The LLCAs that are directly affected by the scheme are presented in Table 4.1 below with the Applicant’s assessment of effect for ease of reference.

**Table 4-1 - Local landscape Areas defined by Applicant**

Local Landscape Character Area and <i>sensitivity</i>	Construction Effect	Effect at Yr 1	Effect at Yr 15
LLCA 3: Didcot Farmland <i>Low</i>	Slight Adverse	Slight Adverse	Slight Adverse
LLCA 4: Didcot Industrial <i>Negligible</i>	Neutral	Neutral	Neutral
LLCA 9: Didcot Mineral Workings <i>Low</i>	Slight Adverse	Slight Adverse	Slight Adverse
LLCA 12: Thames Floodplain <i>Medium</i>	Moderate Adverse	Moderate Adverse	Slight Adverse
LLCA 13: Culham Farmland <i>Low</i>	Slight Adverse	Slight Adverse	Slight Adverse
LLCA 14: Culham Industrial <i>Negligible</i>	Slight Adverse	Slight Adverse	Slight Adverse
LLCA 16: Clifton Hampden Farmland <i>Medium</i>	Large Adverse	Moderate Adverse	Slight Adverse

- 4.36. The LVIA determines that there would be adverse effects at construction and at year 1 across the scheme area due mainly to the removal of existing vegetation, the introduction of new road infrastructure and associated features and a reduction in sense of tranquillity. By year 15 the LVIA considers that although there would be permanent localised changes in land use, the proposed planting would have established to meet its intended function of providing better sense of enclosure and integration of the scheme into the landscape.
- 4.37. It is generally agreed that the assessment of these areas is acceptable, noting that only LLCA 12 and LLCA 16 are assessed as having significant effects during construction and initially on completion, with all areas reducing to slight adverse or neutral and not significant by year 15.
- 4.38. It is considered however that a sensitivity rating of *Low* for LLCA14 would be more appropriate than *negligible*, given the extensive areas of mature trees that enhance the sense of place and park like character in this area. This would mean the scheme during construction would result in a Moderate



Adverse and significant effect but would not alter the remaining residual effect of Slight Adverse for years 1 and 15.

- 4.39. Although the assessment of effects is acceptable, it is considered that more could have been done to reduce the adverse effects with adjustments to the layout of the scheme and more extensive landscape mitigation and enhancement measures. This is discussed in the Comments section below.

## Existing Visual Context

- 4.40. As set out in the landscape context section trees and hedgerows are generally found alongside roads, footpaths, settlement boundaries, railways and field boundaries, and as such the availability of views is limited overall, despite the broad areas of open agricultural and industrial land uses, gravel workings and landfill.
- 4.41. The LVIA identifies 48 representative viewpoints (RVs) for sensitive visual receptors such as road users, residents and PRoW users. A brief summary of the existing visual context along the scheme is provided below:

### A4130 widening (RV1-4, 6)

- 4.42. From the A4130 itself, views are generally contained by the mature hedgerows and vegetation that line the road. There are intermittent views of the adjoining patchwork of fields to the south, but views north are quite well restricted by the vegetation to the GWR. Views from the PRoW to the south are generally restricted by vegetation to the routes, but there are occasional glimpses out, with the chimney stacks of Didcot B power station sometimes glimpses above the GWR vegetation.

### Science Bridge (RV5-9)

- 4.43. From most of Didcot, the topography and the built-up character of the settlement screen views towards the Site. The only available views of the Site are from the north west edge of the recent Great Western Park development. Here the vegetation belts along the south side of the A4130 are visible, with the tall warehouses and industrial buildings at Milton Park on the skyline beyond. The chimney stacks of the Didcot B Power Station are prominent features across the skyline.
- 4.44. Views from the north Didcot business parks are generally curtailed by buildings, the vegetation on the A4130 and amenity planting within the industrial estate.
- 4.45. The PRoW heading into Sutton Courtenay has glimpsed views between vegetation of the industrial park at Didcot and the landfill areas to the north.

### Didcot to Culham River Crossing (RV10-22)

- 4.46. The B4016 (also a PRoW) on the approach to Appleford-on-Thames has intermittent views across the landscape to the north and south, with the Wittenham Clumps a distinctive feature in the distance on the skyline to the east. Views in this area include the high voltage pylons of transmission lines that cross the landscape, and areas of engineered landform as a visual relic of historic mineral workings and landfill sites.
- 4.47. Sutton Courtenay and Appleford-on-Thames are quite well screened with dense vegetation to their borders and access roads (which are generally also used as PRoW) tend to have hedgerow verges which restrict views and the Cherwell Valley railway line, curtail many views towards the scheme from visual receptors in Appleford-on-Thames.
- 4.48. Hill Farm and Appleford Crossing Cottage lie in close proximity to the scheme with existing vegetation providing some screening, especially for the Cottage but more limited for Hill Farm.
- 4.49. The B4016 between Appleford-on-Thames and Culham is more open, allowing views onto adjacent fields and former mineral working sites towards the River Thames. The river path itself is generally well screened for views south but there are glimpses through the vegetation over the landfill and mineral working areas with the larger buildings of the Industrial Park visual beyond. Views north are generally more open across fields, but electricity pylons also often prominent in views.

### Clifton Hampden Bypass (RV23-39)

- 4.50. Abingdon Road is slightly elevated in the west allowing long range views across the landscape. The views are more curtailed towards Culham Science Centre as the road becomes more densely bordered with taller hedgerow.



**SNC • LAVALIN**

- 4.51. CSC and the village of Clifton Hampden sit within an attractive rural landscape of mature agriculture fields and woodlands, which generally filter views of the Site, except when in close proximity.
- 4.52. At the entrance to CSC the landscape includes broad areas of grass and trees giving somewhat of a parkland character to the views.
- 4.53. Due to the landform the Site is only visible in the landscape north of Clifton Hampden. Views from PRoW in this area have a semi-enclosed character but open up towards the north as the landform rises and allows more far-reaching views towards the south.

**Visual Assessment**

- 4.54. The viewpoints are assessed in Appendix 8.6 and presented on Figure 8.15 of the ES, with visualisations provided for selected viewpoints provided in Figures 8.73 to 8.96 of the ES.
- 4.55. RVs that are assessed within the LVIA as having significant effects ie Moderate Adverse effects or greater are noted within table 4.2 below:

**Table 4-2 – Sensitive visual receptors identified by applicant**

Representative Viewpoint and sensitivity	Construction Effect	Effect at Yr 1	Effect at Yr 15
<b>A4130 Widening</b>	None assessed as significant		
Science Bridge			
RV 7: Residents <i>Medium</i>	Moderate Adverse	Moderate Adverse	Slight Adverse
RV 8: Recreational users <i>Medium</i>	Moderate Adverse	Slight Adverse	Slight Adverse
<b>Didcot to Culham</b>			
RV 10: Recreational users <i>Low</i>	Moderate Adverse	Moderate Adverse	Moderate Adverse
RV 10a/b: Residents <i>Medium</i>	Moderate Adverse	Moderate Adverse	Slight Adverse
RV 16: Road users <i>Low</i>	Moderate Adverse	Slight Adverse	Slight Adverse
RV 18: Recreational users <i>High</i>	Large Adverse	Moderate Adverse	Moderate Adverse
RV 19: Recreational users <i>High</i>	Very Large Adverse	Very Large Adverse	Large Adverse
RV 20: Recreational users <i>High</i>	Very Large Adverse	Very Large Adverse	Large Adverse
RV 21: Recreational users <i>High</i>	Large Adverse	Moderate Adverse	Moderate Adverse
<b>Clifton Hampden Bypass</b>			
RV 23: Road users <i>Low</i>	Moderate Adverse	Slight Adverse	Slight Adverse
RV 24: Road users <i>Low</i>	Moderate Adverse	Slight Adverse	Slight Adverse
RV 26: Road users	Moderate Adverse	Slight Adverse	Slight Adverse



Representative Viewpoint and sensitivity	Construction Effect	Effect at Yr 1	Effect at Yr 15
<i>Low</i>			
RV 27: Residents <i>Medium</i>	Large Adverse	Moderate Adverse	Moderate Adverse
RV 28: Road users <i>Low</i>	Moderate Adverse	Slight Adverse	Slight Adverse
RV 31: Recreational users <i>Medium</i>	Large Adverse	Large Adverse	Moderate Adverse
RV 32: Recreational users <i>Medium</i>	Large Adverse	Moderate Adverse	Slight Adverse
RV 34: Recreational users <i>Medium</i>	Large Adverse	Large Adverse	Moderate Adverse
RV 36: Recreational users <i>Medium</i>	Large Adverse	Large Adverse	Moderate Adverse
RV 36a: Residents <i>Medium</i>	Large Adverse	Large Adverse	Moderate Adverse
RV 37: Recreational users <i>Medium</i>	Large Adverse	Large Adverse	Moderate Adverse

4.56. A very brief summary of changes to views as a result of the scheme within each section are included below:

[A4130 widening \(RV 1-4, 6\)](#)

4.57. The removal of the existing hedge to the west bound verge would open up views south from the road, and although some existing hedge is being retained to form the central reserve, the extent of highway infrastructure would obviously increase, with the widened road and roundabouts, along with additional signage and lighting columns. Replacement planting is proposed between the Milton Park roundabout and the first attenuation pond, to reinstate screening for New Farm and the integration of the road. However, elsewhere along this section, replacement hedgerow or belts of trees/shrubs are not being proposed by the applicant and views would therefore remain open from the road.

[Science Bridge \(RV 5-9\)](#)

4.58. The Didcot Science Bridge would be visible in most views towards it; however, it would sit below the skyline formed by the buildings within the industrial parks. Highway infrastructure such as lighting and signage would be seen alongside the new road on the embankments. Planting proposed to the foot of the embankments would eventually provide some softening of the view of the bridge.

[Didcot to Culham River Crossing \(RV 10-22\)](#)

4.59. The scheme cuts through patches of hedge and blocks of trees and all views would experience increases in road infrastructure. Proposed planting would eventually help to integrate sections of the road. However, raised features such as the River Thames bridge and the acoustic barriers would remain visible. The applicant proposes planting climbers to some sections of the acoustic barrier, which would help to soften its appearance, although the proposed green colouring of the barrier on the bridges may be more intrusive.

[Clifton Hampden Bypass \(RV 23-39\)](#)

4.60. The removal of the existing hedge to Abingdon Road would open up views north from the road. The extent of highway infrastructure would obviously increase, with the widened road and roundabouts, along with additional signage and lighting columns. Replacement planting would eventually



reinstate screening and integration of the road, but there are several sections which have been left open.

- 4.61. The CSC entrance area would be dramatically altered with the loss of several parkland trees and extensive road infrastructure, although replacement planting would eventually help to integrate the road and roundabout.
- 4.62. Further north the scheme cuts through patches of hedge and blocks of trees and all views would experience increases in road infrastructure including acoustic barrier and lighting columns. Proposed planting would eventually help to integrate most sections of the road here and planting to the barrier may help to soften its appearance.
- 4.63. It is considered that the impact assessment of the RVs is generally acceptable, noting that significant effects are predicted to remain at year 15 for receptors at Appleford level crossing (RV 10 – PRoW users), along the Thames River Path (RV 18-21– PRoW users), the entrance to CSC (RV 27 – residential), and north of Clifton Hampden (RV 31, 34 & 36-37 – PRoW users and residents).
- 4.64. It is recognised that significant changes to specific views cannot realistically always be fully mitigated, particularly where the road and bridges are new features in the view. However, it is considered that more could be done to reduce many of the adverse effects scheme-wide. Adjustments to the layout of the scheme and more extensive landscape mitigation and enhancement measures would improve the scheme, particularly at the CSC entrance area. The bridges could be designed to be more landmark features. These measures are discussed further in the Comments section below.
- 4.65. However, there are concerns with the assessment for Hill Farm, which has been assessed as part of RV10a (Hill Farm and Appleford Crossing Cottage). These two residential receptors, are not close together, have very different existing views (Appleford Crossing Cottage being much more well screened than Hill Farm) and would be affected in different ways.
- 4.66. Existing and proposed vegetation to Appleford Crossing Cottage, along with the acoustic barrier, would provide screening and amenity. However, there appears to be very little mitigation planting shown for Hill Farm and the extent of road infrastructure here, compared to the existing, would be much more intrusive on the view. It is considered that greater mitigation is required for Hill Farm to reduce what would otherwise be a significant effect.

## Effects on Night Sky

- 4.67. The LVIA includes a qualitative assessment of the existing lighting and character of the night sky. The Light Pollution and Dark Skies Mapping published online by Campaign to Protect Rural England indicates the varying levels of light pollution within the study area, with intensive lighting across Didcot, Milton Park, the Didcot B Power Station and CSC contrasting with darker skies in the east of the study area at the Wittenham Clumps and east of Clifton Hampden. The remainder of the study area is in areas of increased levels of radiance relating to areas of settlement, roads, and other infrastructure.
- 4.68. The assessment considers that at the Site level the lighting will be a new uncharacteristic feature in the very localised landscape and overall assesses moderate adverse (significant) effect. However, it goes on to note that the individual landscape character areas would be unlikely to be affected to a significant level given the existing light sources and skyglow. It is agreed that the proposed lighting would not significantly contribute to light pollution.

## Comments

### Applicant's response to the Regulation 25 Request Letter

- 4.69. The following information and/or clarification has been provided by the applicant in response to queries raised in the Regulation 25 Letter:
1. Clarification on the LVIA methodology which was agreed previously agreed with OCC as part of scoping that included using ratings assigned to receptors in line with DMRB LA 107.
  2. Re-evaluation of mitigation measures for specific receptors and consideration within the revised Preliminary Landscape Masterplan.



3. Confirmation that the representative viewpoints were previously agreed with OCC, which includes RV33 and RV36 that are representative of properties in Clifton Hampden closest to the proposed scheme.
4. Review of the LVIA chapter against the proposed mitigation measures and amended to ensure it aligns better with those illustrated on the Preliminary Landscape Masterplan.
5. Confirmation that the photomontage is in line with GLVIA guidelines, and that the assessment uses professional judgement to assess the potential effect on the represented receptors.
6. Clarification provided on the extent of vegetation loss and areas presumed to be retained. Further commentary is provided in the Arboriculture section of this review.
7. Reconsideration of the landscape mitigation and enhancement proposals in specific locations although noting that some replacement planting is constrained by utilities and bridge designs represent a design approach and are not finalised.
8. Incorporation of climbing vegetation to the majority of proposed acoustic barriers to improve their integration into the landscape/view.

## Comments

### Vegetation Loss, Mitigation and Enhancement

- 4.70. The scheme passes through a mixed semi-rural and rural landscape with farmland fragmented by industrial uses, business parks, landfill and gravel workings and crossed by transport corridors and transmission lines connecting to Didcot B Power Station in the south of the site. The 'green corridor' of the River Thames and the landscape to the north of Clifton Hampden are areas of higher local landscape quality and sensitivity.
- 4.71. Existing planting determines the degree of enclosure and screening across this relatively flat to slightly undulating landscape. The landscape includes some woodland cover including planting on settlement boundaries, along public rights of way (PRoW, roads including the A4130 and the Great Western Railway (GWR) mainline and Cherwell valley line. It is mainly characterised by hedgerows and mature field and hedgerow trees on field boundaries with watercourses including the River Thames fringed with trees and riparian vegetation. The Thames Path National Trail follows the north bank of the River Thames. Mature planting around the Culham Science Centre and tree belts around Clifton Hampden and around Nuneham Courtenay increases the sense of enclosure to the north.
- 4.72. As set out in the Arboricultural section 5 of this review, the Applicant Regulation 25 AIA response estimates that there will be 12.04ha of tree removals (canopy cover) including the partial removal of some tree groups. Replacement planting is estimated to cover only 7.01ha at the time of planting.
- 4.73. The AIA response does not set out how much hedgerow would be lost but, referring to the Biodiversity Net Gain Response, it is estimated that 5.67km of hedgerow would be removed with only 3.84km being replaced.
- 4.74. The loss of existing vegetation clearly contributes to the initial adverse effects of the scheme and on balance the proposed planting does not appear to replace that lost, although for most receptors, significant short and long-term effects are mainly due to the presence of new infrastructure in views. However, particular concern is at the CSC entrance area where the substantial loss of parkland trees and extensive road infrastructure combine.
- 4.75. It is considered that localised adjustments to the layout of the scheme, particularly at the CSC entrance, should be reviewed to reduce tree and hedge loss across the scheme.
- 4.76. Furthermore, there also appear to be several missed opportunities to provide replacement or new vegetation to help mitigate the loss of trees and hedgerows and integrate the road:
1. The lack of replacement hedgerow with trees to sections of the west bound verge of the widened A4130 between Milton and Didcot changes the character of this road, opening up views south and reducing the sense of enclosure.
  2. Elsewhere along new sections of the proposed road, hedgerow with trees to the verges would greatly benefit the integration of the scheme into the landscape and views.
  3. Several balancing ponds would also benefit from their maintenance tracks being bordered with hedge or with blocks of planting.



4. There appears to be a lot of other “left-over space”, for instance between the B4016 and Appleford level crossing, which could be utilised for planting and better integration of the scheme as well as enhancement of habitats and biodiversity.
  5. Bridge embankments could be planted with more shrubs and trees, with reduced gradient of the slopes for safety and additional integration into the landscape.
  6. Acoustic barriers could be screened with denser planting rather than just climbing vegetation in some locations.
  7. As noted previously, Hill Farm does not appear to have appropriate visual screening proposed from the increased proximity and extent of the road to its frontage.
- 4.77. Given the above, it is considered that the proposed landscaping does not achieve the aims of the Didcot Garden Town Delivery Plan (DGTDP), or align with planning policy in the NPPF Paragraph 131, VoWHDC Local Plan policy 37 (Design and local Distinctiveness), policy 44 (Landscape) and policy 45 (Green Infrastructure) nor with SODC Local Plan policy ENV1 (Landscape and Countryside), policy DES1 (Delivering High Quality Development) and policy DES2 (Enhancing Local Character).

### Bridge Design

- 4.78. Both SODC and VoWHDC assert that the Science Bridge should be a landmark feature in line with the aspirations of the DGTDP and that the Thames Crossing bridge is neither attractive nor sensitive to its location.
- 4.79. Given that the bridges would be a new feature the landscape and views, it is accepted that adverse effects are unlikely to ever be fully mitigated. It is considered that the applicant’s current designs, whilst arguably standard, do attempt to work with the landscape and blend into views where possible. However, it is recognised that shrub and tree planting to the adjacent earthworks and better consideration of materials, colour and massing, including the appearance of the acoustic barrier where relevant, would improve the integration of the bridges.
- 4.80. It is recommended that the bridges are designed to reduce their visual appearance further or are redesigned to be more visually striking and therefore more reflective of the aspirations of the DGTDP. Input from the district councils is suggested to agree a suitable design solution.

### Summary

- 4.81. The LVIA presents a reasonable assessment of the potential effects of the scheme on landscape character and visual amenity. It is noted that some landscape and visual receptors would experience significant adverse effects during construction and upon initial completion, with localised visual receptor groups retaining significant adverse effects on their visual amenity at year 15. These localised areas are around Appleford-on-Thames, along the River Thames ‘Green Corridor’, at the CSC entrance and the area around Clifton Hampden, partly due to the initial loss of existing vegetation but largely due to the presence of new infrastructure in the view. The receptors are mainly public rights of way users who would experience transient views, but do also include residents.
- 4.82. Existing planting determines the degree of enclosure and screening across this relatively flat to slightly undulating landscape. The landscape includes some woodland cover including planting on the edge of settlements, along PRow, roads and railway lines. It is mainly characterised by hedgerows and mature field and hedgerow trees on field boundaries with watercourses including the River Thames fringed with trees and riparian vegetation. Mature planting around the Culham Science Centre and tree belts around Clifton Hampden and around Nuneham Courtenay increases the sense of enclosure to the north
- 4.83. It is considered that the proposed landscaping does not achieve the aims of the Didcot Garden Town Delivery Plan (DGTDP), or align with planning policy in the NPPF Paragraph 131, VoWHDC Local Plan policy 37 (Design and local Distinctiveness), policy 44 (Landscape) and policy 45 (Green Infrastructure) nor with SODC Local Plan policy ENV1 (Landscape and Countryside), policy DES1 (Delivering High Quality Development) and policy DES2 (Enhancing Local Character). This is mainly due to the localised adverse effects caused by loss of vegetation, particularly at CSC and general issues around the design of embankments, bridges and attenuation ponds, with several missed opportunities for enhancement measures.



- 4.84. This means that scheme design should be reviewed to include localised adjustments, to reduce the loss and maximise the retention of individual mature trees, groups of trees, and hedges and to provide more extensive replacement planting of trees and hedgerows across the scheme. These include:
1. CSC entrance roundabout area: Review the location, extent and layout to avoid unnecessary and unacceptable loss of extensive numbers of mature trees which currently provide important screening and amenity functions in this area.
  2. Increase the extent of new planting for both mitigation and enhancement measures, especially hedgerows with trees to the widened A4130, and elsewhere, to better reflect the aspirations of DGTDP as a “super green town prioritising green infrastructure”.
  3. Ensure mitigation measures for individual visual receptors close to the scheme are fully considered, ie Hill Farm.
  4. Bridge design options to be discussed and agreed with relevant statutory consultees looking to comply better with the aspirations of the DGTDP.
  5. Reconsider the gradient of embankments to provide better integration into the landscape and more opportunities for planting.
  6. Address the design of each acoustic barrier; explore use of earthworks, living walls and denser adjacent planting.
  7. Explore planting opportunities in small areas of left-over space, such as around balancing ponds, to better integrate these features and the scheme.
  8. Minimise the appearance of maintenance tracks to balancing ponds with grasscrete or similar products that allow grass to growth through.
  9. Extensive location specific recommendations in line with the above have been provided by SODC landscape officer and these should be fully considered in the design development.
- 4.85. It is also recommended that prior to construction:
1. The location, extent and layout of compounds is carefully considered to avoid unnecessary loss or damage to hedgerows and trees.

### Conditions:

- 4.86. Outline wording for conditions is provided below should the development be approved.

### Detailed Landscaping Scheme

- 4.87. **Condition:** Prior to the commencement of construction full details of both hard and soft landscape works shall be submitted to and approved in writing by the Local Planning Authority and should include the following details:
- a. Landscape masterplan (e.g. existing retained and proposed vegetation);
  - b. Proposed finished levels or contours;
  - c. Vehicle and pedestrian access and circulation areas;
  - d. Ecological Features;
  - e. Hard surfacing materials;
  - f. Structures and minor artefacts (e.g. furniture, refuse or other storage units, signs, lighting, noise barriers etc.);
  - g. Sustainable Urban Drainage (SUDS) features;
  - h. Landscape Details as necessary (eg cross-sections, installation details of sedum roofing);
  - i. New planting protection from rabbit and deers;
  - j. Soft landscape proposals, with species choice reflective of the requirements VoWHDC and SODC.
- Soft landscape works shall include:
- a. Planting plans and plant specifications noting species, plant sizes and proposed numbers/densities as well as seed mixes and their provenance;



- b. Information on preparation and implementation including information on ground
- c. conditions; and
- d. Information on ongoing maintenance.

The development shall be implemented in accordance with the approved details unless otherwise first agreed in writing by the Local Planning Authority.

**Reason:** In the interest of the visual amenity of the area and to ensure the creation of a high-quality environment.

### Implementation of Approved Landscaping Scheme

- 4.88. **Condition:** All planting, seeding or turfing comprised in the approved details of landscaping shall be carried out in the first planting and seeding season following the completion of the development. Any trees, plants or areas of turfing or seeding which, within a period of 5 years from the completion of the development, die, are removed or become seriously damaged or diseased, shall be replaced in the next planting season with others of similar size and species, unless the Local Planning Authority gives written consent to any variation.

**Reason:** In the interests of amenity and to ensure a satisfactory standard of landscaping.

### Protection of retained vegetation

- 4.89. **Condition:** Retained vegetation should be protected in accordance with BS5837 and maintained as part of the scheme. This requirement should be included in the Landscape and Ecology Management Plan (LEMP) which will need to reflect the design principles to be embodied in the landscape design that are included in the Outline Landscape Management Plan (OLMP) submitted with the planning application.

Tree protection should be detailed in the arboricultural method statement (AMS) which should include the detailed consideration of tree protection measures as part of the pre-construction design. These should include the preparation of cross-sections with construction depths and materials, to qualify protection options.

**Reason:** To ensure trees and hedgerows are adequately protected from damage.

### External lighting

- 4.90. **Condition:** No construction shall take place until full details of external lighting have been submitted to and approved in writing by the local Transport Planning Authority. Such details shall include the location, height, design, direction of light, shields, sensors, and timing of lighting. Any lighting which is so installed shall not thereafter be altered without the prior consent in writing of the Local Planning Authority other than for routine maintenance which does not change its details.

**Reason:** In the interests of visual amenity, to avoid harm to the dark night skies of the countryside and to protect protected species.

### Landscape Management and Maintenance Plan (LEMP)

- 4.91. **Condition:** Prior to the commencement of construction a detailed landscape management plan for the site shall be submitted to and approved in writing by the Local Planning Authority.

- a. Description of the features to be managed;
- b. Lifespan of the management plan;
- c. Aims and objectives of management;
- d. Appropriate management options for achieving aims and objectives;
- e. Prescriptions for management actions;
- f. Preparation of a work schedule;
- g. Personnel responsible for implementation of the plan.

The LEMP should reflect the design principles to be embodied in the landscape design that are included in the Outline Landscape Management Plan (OLMP) submitted with the planning application:



- a. To avoid, minimise and mitigate against adverse effects on the landscape and ecological components of value to the site.
- b. To integrate the new road and infrastructure into the landscape setting.
- c. To provide enhancements to existing landscape and visual amenity resources and associated facilities to include improved public access and planted visual screening.
- d. Ensure that the character of the landscape proposals is consistent with that of the adjacent and/or lost landscape or provides an enhancement of the existing character where this is appropriate.

Thereafter the development shall be carried out in accordance with the approved landscape management plan unless otherwise first agreed in writing by the Local Planning Authority.

**Reason:** In the interests of amenity and to ensure a satisfactory standard of landscaping.

### CEMP (Construction Environment Management Plan) (Landscape)

- 4.92. **Condition:** No development shall take place (including ground works or vegetation clearance) until a Construction Environmental Management Plan has been submitted to and approved in writing by the Local Planning Authority.

The CEMP seeks to ensure compliance with relevant environmental legislation, government policy objectives and scheme specific environmental objectives and requirements. It also provides the mechanism for monitoring, reviewing, and auditing environmental performance and compliance.

The overall objectives of the CEMP are to:

- a. Identify stakeholder requirements;
- b. Set out the Environmental Management System requirements (in line with ISO 14001);
- c. Ensure compliance with current legislation;
- d. Effectively minimise any potential adverse environmental effects during construction including how site-specific method statements will be developed to avoid, minimise, and mitigate construction effects on the environment;
- e. Translate committed mitigation, set out in the ES, into committed site procedure.

The CEMP shall include a Register of Environmental Actions and Commitments in accordance DMRB LA 120 for each environmental commitment made in developing the preliminary design and Environmental Statement for each environmental topic to address the potential environmental effects of the scheme.

The CEMP shall include (not exhaustively) the following landscape related tasks:

- a. Evaluation of Change Register to record the design changes and impact on the findings of the ES
- b. Environmental Control Plan
- c. Soil Handling and Management Plan
- d. Landscape and Ecology Management Plan
- e. Risk assessment of all activities that may be damaging to trees both on and offsite;
- f. No soil storage mounds should extend into root protection zones of hedges or trees
- g. Responsible persons, roles and lines of communication;
- h. The role and responsibilities on site of an Arboricultural Clerk of Works (ACoW) or similarly competent person; and
- i. Use of protective fences, exclusion barriers and warning signs.

The approved CEMP shall be adhered to and implemented throughout construction strictly in accordance with the approved details, unless otherwise agreed in writing by the Local Planning Authority.

### Handover Environmental Management Plan (HEMP)

- 4.93. **Condition:** Prior to the end of the construction phase, a Handover Environmental Management Plan will be prepared, adopted and integrated into the Principal Contractor's overall scheme Handover Environmental Management Plan (HEMP) and Construction Phase Health and Safety Plan and submitted to, and be approved in writing by, the Local Planning Authority.



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The HEMP will be prepared in accordance with and include the information specified for the third iteration of an EMP as detailed in Appendix A table A3 of DMRB LA 120. (Highway's England guidance as set out in the Design Manual for Roads and Bridges (DMRB)).



## 5. Arboriculture

### Key planning application documents referred to as part of review

- 5.1. The following documents have been referred to as part of the review by an arboricultural lead specialist with more than 18 years' experience. This arboricultural response considers trees, both within the specific context of the proposed scheme and as part of a wider population of trees in the area:
1. EIA Regulation 25 Response Appendix\_W Revised Arboricultural Impact Assessment dated October 2022
  2. EIA Regulation 25 Response Appendix\_W Tree Constraints Plans: GEN\_PD-ACM-ELS-SW\_ZZ\_ZZ\_ZZ\_DR\_AB-0001 to GEN\_PD-ACM-ELS-SW\_ZZ\_ZZ\_ZZ\_DR\_AB-0060
  3. EIA Regulation 25 Response Appendix\_W Tree Protection Plans: GEN\_PD-ACM-ELS-SW\_ZZ\_ZZ\_ZZ\_DR\_AB-0061 to GEN\_PD-ACM-ELS-SW\_ZZ\_ZZ\_ZZ\_DR\_AB-0119
  4. OCC Regulation 25 Request Letter, Didcot Garden Town HIF 1 Scheme, Oxfordshire County Council dated November 2022, prepared by Aecom.
- 5.2. This review was also informed by a meeting with the applicant on 25<sup>th</sup> January 2022 to address queries raised as part of the stage 1 document and data review. The Applicants Regulation 25 response includes a revised Arboricultural Impact Assessment as Appendix W, which forms the main part of this review, especially where requests for further information were previously made of the Applicant.
- 5.3. A site-based overview (i.e. not a detailed survey) was undertaken in December 2021 that contributed to informal discussions with OCC officers and the applicant to inform this written response.

### Suitability of Assessment

- 5.4. Arboricultural surveys have been carried out to inform the application. The impacts have been presented as an Arboricultural Impact Assessment (AIA) report with associated Tree Constraints Plans (TCPs) and Tree Protection Plans (TPPs). These have been developed in line with *British Standard 5837:2012 Trees in relation to design, demolition, and construction – Recommendations* (BS5837) and the presented data is considered suitable to inform the planning application.

### Relevant Policies

- 5.5. A summary of policies relevant to arboriculture is provided below.

#### National Planning Policy Framework

- 5.6. Chapter 15: Conserving and enhancing the natural environment - requires that planning policies and decisions should contribute to and enhance the natural and local environment, including: para 174 (b) '*recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*' and para 180 c), which states: *Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists*'.

#### Local Planning Policy and Guidance

##### [Oxfordshire County Council Tree Policy \(2019\) \(superseded by OCC Tree Policy for Oxfordshire 2022\)](#)

- 5.7. OCC published a Tree Policy in 2019 in respect of trees on County Council owned land. This has since been superseded by the 2022 published policy document. However, this application is assessed against the 2019 version given the date it was submitted.



- 5.8. Section c) includes policies on tree planting, section d) on tree protection, the policies of specific relevance are:
- Policy TP2: Planting on Council managed land should (changed to must within 2022 version) prioritise larger growing shade providing trees scaling down to smaller ornamental trees where larger trees are not suitable. The Council will establish a diversity of tree species to mitigate against pests and disease that can threaten entire species. The Council will have final say on species selection (policy 2 of 2022 version).
  - Policy TP8: The County Council will seek compensation from any organisation responsible for significant damage to or removal of any council owned tree(s) to the value as calculated by the Capital Asset Valuation of Amenity Trees (CAVAT). (Policy 14 of the 2022 - changes include 'any organisation requesting removal' and 'any public trees related to an approved planning application that are the responsibility of the County Council')
  - Policy TP9: On construction sites all work must be in accordance with the most recent version of BS 5837 Trees in relation to design, demolition and construction - Recommendations and that foundation details follow the recommendations of the National House Building Councils Standards Chapter 4.2 Building near trees.
  - Policy TP10: In the processing of planning applications, to aim for retention of trees of high amenity/environmental value taking consideration of both their individual merit and their interaction as part of a group or broader landscape feature. (Policy 22 of the 2022 version expands further 'On strategic developments, the County Council will seek to ensure that the landscaping plan will specify and demonstrate widely distributed tree cover (or equivalent green infrastructure) in the public domain to achieve at least 30% canopy cover within 10 years').

#### South Oxfordshire District Council Local Plan 2011-2035

- 5.9. The South Oxfordshire District Council (SODC) Local Plan 2011-2035 adopted in December 2020 sets the vision, objectives and policy for SODC. The following policies are relevant to arboriculture.
- Policy ENV1 also seeks to protect the landscape, countryside and rural areas of South Oxfordshire from harmful development, with consideration to trees (including individual trees, groups of trees and woodlands); hedgerows and field boundaries; irreplaceable habitats (such as ancient woodland and aged or veteran trees found outside ancient woodland); the River Thames; other watercourses; the setting of settlements of special character; topographical features; areas of cultural and historic value; important views and skylines; and perceptual factors such as tranquillity and rarity. Supporting text for the policy states that significant weight will also be given to protecting non-designated landscapes, the countryside and green infrastructure assets from harm.  
*Section 7.11 states 'the Council will protect trees of significant amenity value which are worthy of retention and considered to be at risk, through Tree Preservation Orders, Conservation Areas and planning conditions as appropriate'.*
  - Policy ENV2: section 4. 'Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) will be refused planning permission, unless there are wholly exceptional reasons justifying the granting of planning permission'.
  - Policy ENV8: Conservation Areas: '*ensure no loss of, or harm to any building or features that makes a positive contribution to the special interest, character or appearance of the Conservation Area*'.

#### Vale of White Horse District Council Local Plan 2031 Part 1

- 5.10. The Vale of White Horse District Council (VoWHDC) Local Plan 2031 Part 1 adopted in December 2016 provides the spatial strategy and policies for VoWHDC. The following policies are relevant to arboriculture.
- Core Policy 33: Promoting Sustainable Transport and Accessibility: which promotes sustainable transport and accessibility and states that "The Council will work with Oxfordshire County Council and others to ensure that transport improvements are designed to minimise any effects on the amenities, character and special qualities of the surrounding area, ..."



- Core Policy 44: Landscape: which seeks to protect the landscape of the Vale of White Horse from harmful development, and protect trees, important views and skylines, landscape settings, and tranquillity.
- Core Policy 46: Conservation and Improvement of Biodiversity. Development that will conserve, restore and enhance biodiversity in the district will be permitted.

Development likely to result in the loss, deterioration or harm to habitats or species of importance to biodiversity or of importance for geological conservation interests, either directly or indirectly, will not be permitted unless (iii) measures can be provided (and are secured through planning conditions or legal agreements), that would avoid, mitigate against or, as a last resort, compensate for, the adverse effects likely to result from development

#### [Burcot and Clifton Hampden Neighbourhood Plan 2011-2034.](#)

5.11. The Parish of Burcot and Clifton Hampden published a pre-submission draft of their Neighbourhood Plan in November 2020. The plan is not yet adopted but will gain weight as it moves through the examination process to a referendum. The following policies are relevant to arboriculture:

- Policy BCH6: Design Principles in Clifton Hampden: which states that development proposals will be supported, provided they sustain and enhance the distinctiveness of the village and where appropriate, the character and setting of the conservation area.
- Policy BCH9: Local Landscape Character: which states that the culturally and historically important local landscape character of the parish will be conserved and where possible enhanced.

5.12. It is noted that Culham and Sutton Courtney have yet to publish draft neighbourhood plans.

## Context

### [A4130 Widening](#)

5.13. The southern extent of the site comprises the existing A4130 highway infrastructure which is lined by mature trees and hedgerows. There is a patchwork of mature hedgerows and intermittent trees across the fields to the south of the A4130.

### [Didcot Science Bridge](#)

5.14. North of the A4130, existing tree belts are a feature within the Didcot B Power Station and the former Didcot A Power Station sites.

### [Didcot to Culham River Crossing](#)

5.15. As the scheme progresses north between Didcot and the River Thames there is less tree cover, with it being typically around the boundaries of the settlements of Didcot, Appleford-on-Thames, Sutton Courtney, Culham and Long Wittenham. There are hedgerows along road and field boundaries, but these are sporadic in places along the B4016 between Appleford-on-Thames and Culham.

5.16. Where the scheme proposes to cross the River Thames this section of the river is lined by mature trees forming an effective green corridor. As the scheme heads north of the river and west of Culham Station the landscape is again more open in character with the tree cover largely forming part of field and road boundaries as hedgerows and occasional trees. To the north of this area there are some larger blocks of woodland.

### [Clifton Hampden Bypass](#)

5.17. Between the Culham Science Centre (CSC) and Clifton Hampden there are distinctive mature tree belts in field boundaries. Larger blocks of mature woodland are found across the elevated ridgeline to the north of Clifton Hampden at Nuneham Courtenay.

## Assessment

5.18. The AIA identified individual trees, hedgerows, groups of trees and woodland – referred to generically as ‘features’. The AIA recorded 728 tree features, some of which are located outside of the scheme boundary. An accompanying tree survey schedule provides data on each feature. The



- locations, canopy size, tree root protection areas (RPA) and whether features are proposed for retention or removal are shown on a series of accompanying plans.
- 5.19. The surveyed trees are a mixture of species in fair to good condition. The AIA notes the most significant tree features as tree and group references T14, T102, G255, G308, T311, T498, T533, T534, T695 and T699. These being either common oak, horse chestnut, ash and common lime, and afforded Category A classifications as they provide significant landscape and amenity value.
- 5.20. The AIA identified tree T424 as the most 'notable' tree and has been recorded as a 'veteran' specimen due to the numerous veteran features it contains. The tree is located within the Clifton Hampden Bypass section of the scheme. Tree T498 was identified as another notable tree. The tree is a large over mature common oak located to the north of Clifton Hampden. It has been classified as a Category A tree and is considered by the Applicant as providing significant landscape and amenity value to the wider area.
- 5.21. The AIA has recorded 11no. high quality (Category A) trees or groups of trees and 318no. moderate quality (Category B) trees or groups of trees as part of the assessment. Category A and B features are typically considered to be desirable to retain.
- 5.22. The applicant details that there are 8no. Tree Preservation Orders (TPO) and 1no. Conservation Area within or near to the site, as identified using the SODC's Online mapping facility. The TPO extents and Conservation Area extents are included on the TPPs as blue and orange hatching respectively. It is noted that where the TPO citation is not sufficiently detailed and / or the group boundaries as provided by the LPA are not reflective of what is present on site, that the Applicant made assumptions on which trees are included within the TPOs and Conservation Areas.
- 5.23. The applicant determined the impacts on trees by overlaying the scheme proposals onto the TPPs. It is noted that these proposals are not easy to understand given the heavily stylised approach that has been adopted. The summary of tree removals is included within table 4, section 5 of the AIA and the extent of tree canopy loss is detailed within table 9.1 of the Regulation 25 response. The total area of tree removals (canopy cover) is 12.04ha. This includes partial removal of some tree groups. This data was submitted as part of the updated AIA at the request of OCC.
- 5.24. It is noted that no quantities have been provided in response to the Arboricultural request for linear metreage of hedgerow removals and replacements. However, in the Regulation 25 response the Biodiversity Net Gain (BNG) assessment quantifies hedgerow removals at 5.67km, and hedgerow replacement at 3.84 km . It is noted that the replacement hedgerows will include more species and will therefore be of higher quality than the hedgerow removed
- 5.25. Tree replacements at the time of planting covers 7.01ha, as confirmed in the response to the OCC Regulation 25 Request Letter. This represents a nett loss of approximately 5.4ha. The applicant has provided further data regarding predicted canopy cover following a period of 10yrs growth, suggesting a canopy cover of 15.7ha at that time. This would equate to a net gain in canopy cover of 3.66ha compared with the tree removals for the scheme. The application sets out an approach in determining this increase in canopy cover after the 10 year period.
- 5.26. To determine removals within selected tree groups the applicant has applied a 5m 'reasonable working space' offset from the direct footprint of the scheme. However, this could be reduced in places and final proposals for working areas, extents of tree and hedge removals and tree protection fencing shall need to be confirmed by the contractor and agreed by the appointed project Arboriculturist prior to commencement of any works on site.
- 5.27. The AIA makes recommendations as to how the construction might take place without damage to tree roots of retained trees. This includes the use of a 'proprietary tile or raft system' to permit works without excavations. This is noted as only being feasible for new footpaths and cycleways. The AIA makes clear that any works within RPAs would be done under arboricultural supervision and this is welcomed. The AIA advises there may be cases where, once work begins on site, it will become clear where trees shown on the plans for retention will need to be removed. In such cases, the AIA notes that permission would be sought from the appropriate local authority officers before any tree removal is undertaken.
- 5.28. The need for any onsite incursion into the RPAs of trees that were not able to be plotted and determined accurately in advance, are to be surveyed and a plan of action agreed by the project Arboriculturist prior to any invasive works being undertaken.
- 5.29. It is recommended that if the proposals are approved and where features are proposed to be retained but subsequently require removal, that a CAVAT analysis is undertaken to inform the



decision and determine an appropriate amount of compensation which could contribute to future tree replacement and maintenance. in line with Policy TP8 of OCC Tree Policy (2019).

- 5.30. The AIA notes that some trees are likely to be owned by third parties and prior to any works the ownership of these trees must be established and the consent of the tree owner obtained in writing. This is recommended to be reviewed and actioned at the earliest feasible stage. It is not known whether such permissions have yet been obtained, or consultation undertaken.
- 5.31. A potential consequence of breaking into the canopy mass of an existing group of trees by either partial group or individual tree removal is an increased likelihood of windthrow, stability issues, branch failure and in a worse case situation potentially a cascading decline of trees as a result of changed environmental conditions. The AIA recognises this and states: *where significant tree removal is to take place in proximity to trees to be retained there is some potential for additional tree removals or other remedial works (such as pruning or pollarding) to be required to address any loss of companion shelter*. Further assessment would need to be undertaken in line with the approach detailed in Appendix G of the AIA by the supervising arboriculturist. Appropriate measures should be undertaken in line with the chosen method of assessment, appropriate mitigation measures applied and agreed with the LPA to ensure the safe retention of trees.
- 5.32. OCC as highway authority has a responsibility to maintain the safe operation of the highway including dealing with trees which are, or become, dangerous. The impacts of canopy opening may not be immediately evident, and tree decline and failure may emerge over time. An appropriate response would be to develop a tree risk management strategy for retained trees within the scheme extents. This would include an increased survey intensity such as bi-annual condition surveys for a period of five years to monitor and respond to post-construction changes in on and offsite tree condition.

### Comments – accuracy of data

- 5.33. The AIA acknowledges that some tree positions are indicative, with exact positions requiring confirmation on site.
- 5.34. The assessment of tree canopy area and linear extent of hedgerows to be removed is based on a desk top review of the TPPs. The tree canopy data is presented as a summary table within table 9.1 of the Regulation 25 response in Appendix I of the updated AIA. The hedgerow data is presented within the BNG response.

### Comments – Statutory and Non-statutory Designations Impacts

- 5.35. The following section highlights the impacts on trees that have statutory and non-statutory designations. These impacts have been identified by the applicant.
1. The Applicant notes there are 8no. TPOs within or adjacent to the site. However, only one TPO is directly impacted by the scheme. These trees are between the entrance to CSC and Culham Railway Station which are subject to a Tree Preservation Order (TPO) number 137/2009.
  2. The trees that require removal as illustrated on TPP sheet 48 are part of G1 from TPO number 137/2009 (from citation 'A group comprising of 1 Norway Maple, 8 Ash, 1 walnut, 3 Whitebeam and 3 Laburnum. Situated adjacent to the main entrance for the business park known as Culham No.1 Site) tree references T237 and part of G262; and part of G3 from TPO number 137/2009 (from citation 'A group comprising of 3 Alder, 3 Lime, 2 Sycamore and 7 ash. Situated in the south east portion of the business park known as Culham No. 1 Site and to the east of the main entrance') tree references T352 and part of G355.
  3. On review of the TPP sheet 48 Tree T237 is shown for removal to permit the construction of a new shared use cycleway which is within part of its root protection area. It is suggested that the applicant reviews the design in this location to retain this tree. The use of a no-dig solution and the adjustment to the alignment and / or slight reduction in width of the shared use pathway could enable the retention of this tree.
  4. Part of group G262 is shown for removal to permit the construction of a turning head. It is suggested that the applicant reviews the design in this location to retain these trees. There is an existing gap in this location that could be better used, or the turning head repositioned away from the TPO trees. The TPO citation lists the trees within this area, therefore, confirmation on which tree(s) within this group would require removal would need to be provided and agreed within SODC.



5. Part of group G355 and tree T352 are shown for removal to permit the construction of a drainage feature. It is suggested that the applicant reviews the design in this location to retain these trees. There appears to be sufficient land in this area to permit a redesign of this feature without losing any volume. Therefore, it is suggested that no works are permitted to these trees without prior approval from SODC.
6. The AIA includes the removal or part removal of trees within G2 of TPO 137/2009 (from citation 'A group comprising of 19 Lawson Cypress Situated adjacent to the main entrance for the business park known as Culham No.1 Site) tree references G318 and G327. On review of the TPP sheet 48 these tree groups are not shown for removal. Therefore, it is suggested that no works are permitted to these trees without prior approval from SODC
- 5.36. The scheme does not directly impact on any Ancient Woodland. The two ancient and semi natural woodlands that have been recorded by the applicant are outside of the scheme extents, one being within Appleford-on-Thames and the second to the north of Didcot. The distance from the scheme for both woodlands exceeds the 15m buffer zone identified within the Standing Advice from Natural England and the Forestry Commission. Therefore, no works within the scheme boundary will directly impact the trees and is in line with policy NPPF Policy, SODC Policy ENV1 and VoWHDC Core Policy 46.
- 5.37. The **Clifton Hampden Conservation Area** is shown within Figure 8 of the AIA and on TPP sheets 55, 57 and 58. It is noted that the Clifton Hampden Conservation Area does not currently have a formal appraisal, which would typically appraise the special character of the area and the features which make a positive contribution to its character. The AIA identifies the recorded trees that are likely to fall within the Conservation Area. One tree group G454 was considered by the Applicant as being potentially within the Conservation Area and requiring part removal. On review of TPP sheet 58 the tree is growing adjacent to the existing B4015 Oxford Road which appears to be relatively unchanged as part of the proposals in this location. So, it is not clear why this section of the group requires removal. Therefore, it is suggested that no works are permitted to these trees without prior approval from SODC.
- 5.38. The AIA has identified Priority Habitat Inventory – Deciduous Woodland (England) within the site, locations of which are illustrated on Figures 11 and 12 of the AIA. The boundaries of the Priority Habitat Inventory sites are not included within the TPPs but it is clear that some of these non-statutory designations overlap and are directly impacted by the scheme. It is considered that impacts on these tree groups should be kept to a minimum, to be reviewed as part of the design development process.

### Comments – veteran tree impacts

- 5.39. The 'Standing Advice'<sup>6</sup> definition of a veteran tree is included below:
- 5.40. "All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value".
- 5.41. The AIA identifies that the RPA of the veteran tree T424 has been amended to 15 times it's stem diameter in line with guidance from Natural England and the Forestry Commission.
- 5.42. On review of TPP sheet 54 a large proportion (approximately 40% of the total area) of the buffer zone illustrated around the tree has been identified as a construction working zone. The AIA notes that this encroachment was for a new swale, but '*the design should be adjusted to avoid this area*'. No updated design is shown on the TPP and therefore it suggested that there is a condition to ensure protection of this tree in line with NPPF Policy, SODC Policy ENV1 and VoWHDC Core Policy 46.

### Comments – responses to requests for further information

- 5.43. The discrepancies identified between existing trees and hedges shown on the tree plans compared with onsite features or aerial imagery have been corrected based on sample checks undertaken as part of this review.
- 5.44. The AIA now includes Table 6 which details conflicts between retained trees and utilities. However, it is noted that at this stage the available utility information is indicative. The mitigation measures

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<sup>6</sup> <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>



recommended are appropriate but will require confirmation within a detailed Arboricultural Method Statement.

- 5.45. The Applicant has confirmed that the tree removals are based on a reasonable worst-case estimate on an agreed approach developed with the LPA. It is noted that there are inherent uncertainties at this stage of a scheme, as it is still subject to further design development to take into consideration site conditions. However, in order to limit tree removals, further tree survey work will be required to accurately plot the locations of the Category A trees, trees within TPO 137/2009 that are within the scheme extents, trees within G454 within the Clifton Hampden Conservation Area and trees located outside of the scheme boundary (namely G9, G15, G31, G38, G48, G74, T82, G83, H92, G124, T137, G262, G318, 418 and G689). The appointment of an Arboricultural Clerk of Works will be required to manage tree removals.
- 5.46. The protection of the veteran tree T424 has been noted by the Applicant. The updated drainage plan dwg no. GEN\_PD-ACM-DGT-ZZ\_ZZ\_DR-T-0037 Rev P02 shows swales cut back to outside of the RPA, with what is presumed to be an underground connection pipe passing through the RPA. Whilst this is an improved situation compared to previous, it does not meet the commitment that *'the RPA of this tree will be avoided.'* The updated TPP dwg no. GEN\_PD-ACM-ELS-SW\_ZZ\_ZZZZ-DR-AB-0114 Rev P03.1 shows tree protection fencing cutting across the RPA. As referenced in section 3.2.5, 3.4.8 and 5.4.3 of the Reg 25 Appendix W Revised Arboricultural Impact Assessment, this tree should be afforded the highest protection. Table 4 in section 5.1.2 includes T424 under the category of trees *'which may require some incursion into their Construction Exclusion Zone to facilitate the Scheme'* – the drainage pipe should be located outside of the RPA if possible and the RPA offered full tree protection fencing. Given the importance of this tree it is recommended that the design is further developed to avoid the RPA.
- 5.47. The Applicant has provided summary data on the canopy area lost to facilitate the scheme and the new planting area at year 1 and at year 10 assuming a 500mm per year growth rate and a cautious 250mm per year rate. It is noted that the figures provided as part of the Biodiversity Net Gain (BNG) information differ from those supplied within the AIA.
- Tree removals – 12.04ha compared with BNG total of 11.26ha
  - New tree planting at year 1 – 7.01ha with BNG total of 12.398ha based on enhanced and created.
- 5.48. The enhancement works are not covered within the AIA. Details on these works to satisfy BNG calculations are covered within separate biodiversity conditions.

### Comments – Ash Dieback

- 5.49. Ash dieback is a relatively recent disease in the UK caused by a fungus (*Hymenoscyphus fraxineus*) and is affecting ash trees throughout the UK. It can cause the death of ash trees of all ages with the symptoms often appearing slowly before the tree dies or becomes dangerous and requires removal. Understanding of ash tree mortality rates in the UK is still developing. Experience suggests that it can be high, typically 75 – 95% of all ash trees. The AIA notes that during the tree survey ash dieback was recorded. The trees that were identified are detailed within the tree survey schedule (Appendix B of the AIA).
- 5.50. Loss from ash dieback will occur irrespective of whether this scheme takes place. One potential consequence of the scheme, if approved, would be that it brings highway users closer to trees than is currently the case. This may in some cases require the removal of ash trees sooner than would have been the case or require removal where trees might otherwise have been able to be retained. These trees may not yet be showing signs of the disease and so would not be picked-up in a ground survey. It is important when considering the wider arboricultural context for the scheme to note that ash dieback will contribute further to the cumulative loss of tree cover over time, so the planting of more species diversity would be welcomed as part of the scheme.

### Comments - Change in canopy cover

- 5.51. Approximately 12.04ha of tree cover will be cleared in advance of the engineering works, with approximately 7.01ha of new tree planting undertaken as part of the landscape mitigation / reinstatement works, equating to a nett loss of approximately 5.03 ha of tree cover within the scheme area at year 1. At year 10, under optimal growth conditions in the interim years, it is estimated by the applicant that the canopy cover of the new planting would extend to 15.7 ha.



However, given that growth rates are difficult to accurately predict due to the variable nature of site-specific influencing factors - such as adjacent existing trees that may limit the growth of new planting – this estimation of growth at year 10 cannot be considered guaranteed. It should also be noted that whilst a nett gain is beneficial, the replanting tends to be sporadic individual trees and narrow linear plots rather than substantial blocks of planting.

## Comments – consultation responses

- 5.52. Planning consultation responses from South Oxfordshire District Council and Vale of White Horse District Council, within which the scheme is located, include a common view that proposed landscaping is inadequate to address SODC Policy ENV1 and the VoWHDC Policy 44 and 46 respectively, and paragraph 131 of the NPPF. They also comment that neither the TPPs or landscape master plans show the level of detail required to determine whether the vegetation proposed will mitigate that lost. It is considered that these views are valid and on this basis it is recommended that further planting be included within the scheme and more trees be retained where possible.

## Summary

- 5.53. The Applicant has sought to limit the impacts on high amenity value trees (Cat A) with only one such tree identified for removal (this being tree T534 which has been identified for further survey to confirm its position by the Applicant). This complies with local planning policies through the retention and protection of high amenity value trees. The retention of the veteran tree T424 complies with National and local planning policies. However, the buffer zone encroachment needs to be resolved and conditioned. The impacts on TPOs and Conservation Area trees has been highlighted and these need to be reduced in line with recommendations and proposed conditions.
- 5.54. Across remaining BS Categories there is a significant loss of canopy cover. The overall area of tree clearance measures 12.04ha, with 7.01ha of replacement planting at year 1, which equates to an approximate 40% nett loss in tree cover. The Applicant estimates a potential increase in canopy cover area after a 10 year period equating to an increase of 3.66ha compared with the area of tree removals for the scheme, although this cannot be considered guaranteed.
- 5.55. Hedgerow removals are quantified at 5.67km, with replacement hedge planting totalling 3.84km.
- 5.56. It is acknowledged that the constraints of the redline boundary limit the area available for replacement planting and therefore all opportunities to retain existing vegetation and maximise new planting should be taken as part of design development, and secured through planning conditions. The introduction of species other than ash will be seen as a benefit for the locality given the presence of ash dieback.
- 5.57. The Applicant refers to enhancement works as part of their BNG calculations. This enhancement of existing retained groups of trees would be seen as beneficial, however, details on these works shall need to be confirmed as part of the design development process for approval by the LPA prior to commencement of the works.
- 5.58. In conclusion, the scheme design should be reviewed to include localised adjustments to the design to retain or reduce the impacts on trees. These include:
4. Removing any proposals from the buffer zone around the veteran tree T424 and present the updated designs for review by OCC.
  5. Reviewing the designs that currently impact on the TPO trees between the entrance to CSC and Culham Railway Station which are subject to a Tree Preservation Order (TPO) number 137/2009.
  6. Reviewing the designs that currently impact trees that fall within the Clifton Hampden Conservation Area.

## Conditions:

- 5.59. If the scheme is approved, it is recommended that the following conditions are imposed, outline wording for which is provided below:

## Tree Survey



5.60. **Condition:** Prior to construction an updated tree survey should be undertaken to inform the design development to include the precise topographic location of trees whose positions are currently indicated on the plans as approximate and where these are within or on the edge of the proposed works. This survey shall ensure the important trees such as the veteran specimen; trees T14, T102, G255, G308, T311, T498, T533, T534, T695 and T699; and trees within G1, G2 & G3 of TPO137/2009 and the Clifton Hampden Conservation Area are correctly plotted and either the impacts limited or quantified accurately.

**Reason:** This is to meet requirements of the cited planning policy to protect trees (specifically OCC Tree Policy TP10), (SODC Policy ENV1, Section 7.11, Policy ENV2 and Policy ENV8), (VoWHDC Core Policy 44 and 46), (NPPF paragraph 180c).

### Arboricultural Method Statement (AMS)

5.61. **Condition:** As noted in the AIA a detailed AMS should be prepared including detailed consideration of tree protection measures as part of the pre-construction design. These should include the preparation of cross-sections with construction depths and materials, to qualify protection options, and confirmation of mitigation measures for the installation of utilities within the RPAs of retained trees.

**Reason:** This is to meet requirements of the cited planning policy to protect trees (specifically OCC Tree Policy TP10), (SODC Policy ENV1, Section 7.11, Policy ENV2 and Policy ENV8), (VoWHDC Core Policy 44 and 46), (NPPF paragraph 180c).

### Clerk of Works Supervision

5.62. **Condition:** Full Arboricultural Clerk of Works (ACoW) supervision must be provided to oversee construction around trees.

**Reason:** This is to meet requirements of the cited planning policy to protect trees (specifically OCC Tree Policy TP10), (SODC Policy ENV1, Section 7.11, Policy ENV2 and Policy ENV8), (VoWHDC Core Policy 44 and 46), (NPPF paragraph 180c).

### Tree Risk Management Strategy

5.63. It is recommended that a detailed tree risk management strategy is prepared for the scheme. This would consider the impact and mitigation not only of the work as proposed but also the operation of the expanded operational highway and would include trees on private land, trees retained within partially cleared groups and the potential impact of ash dieback.

### Consultation

5.64. As noted in the AIA full consultation and agreement with owners of offsite trees is required before works can commence to privately owned trees.

### CAVAT analysis

5.65. In accordance with OCC Tree Policy TP8) it is recommended that CAVAT analysis is undertaken of any trees that are proposed to be retained but for which removal is proposed during the works. An appropriate compensation amount would be allocated to future tree replanting and maintenance.

### Construction Environmental Management Plan (Arboriculture)

5.66. No development shall take place (including ground works or vegetation clearance) until:

Construction Environmental Management Plan (Arboriculture) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include (not exhaustively) the following in regard to trees:

- a. Arboricultural Method Statement
- b. Risk assessment of all activities that may be damaging to trees both on and offsite;
- c. No soil storage mounds should extend into root protection zones of hedges or trees;
- d. Responsible persons, roles and lines of communication;
- e. The role and responsibilities on site of an Arboricultural Clerk of Works (ACoW) or similarly competent person; and
- f. Use of protective fences, exclusion barriers and warning signs.



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The approved CEMP shall be adhered to and implemented throughout construction strictly in accordance with the approved details, unless otherwise agreed in writing by the Local Planning Authority.

**Reason:** This is to meet requirements of the cited planning policy to protect trees (specifically OCC Tree Policy TP10), (SODC Policy ENV1, Section 7.11, Policy ENV2 and Policy ENV8), (VoWHDC Core Policy 44 and 46), (NPPF paragraph 180c).



## 6. Climate Change

### Key Documents Reviewed (not exhaustive list)

6.1. Key documents reviewed included:

- Didcot Garden Town HIF1 Scheme, Environment Statement Volume I Chapter 15 – Climate September 2021.
- Letter Dated 26th April 2022 from Oxfordshire County Council to Jonathan Hill, AECOM, ref R3.0138/21.
- Regulation 25 Response, Didcot Garden Town HIF1, Oxfordshire County Council dated November 2022, prepared by Aecom.
- Regulation 25 Response, Didcot HIF1, Appendix K Climate Change Position Statement, Oxfordshire County Council, dated October 2022, prepared by Aecom.
- Regulation 25 Response, Didcot HIF1, Appendix L Climate Impact Assessment

### Relevant Policy

6.2. A summary of policy relevant to climate emissions and the vulnerability of a project to climate change is provided below.

### International Policy and Legislation

#### Paris Agreement

6.3. The Paris Agreement is a legally binding agreement within the United Nations Framework Convention on Climate Change (UNFCCC) dealing with GHG emissions mitigation, adaptation and finance starting in the year 2020. It requires all signatories to set a target, known as a nationally determined contribution (NDC), and to strengthen their climate change mitigation efforts to keep global warming to well below 2°C this century and to pursue efforts to limit global warming to 1.5°C. The agreement contains a ‘ratchet’ mechanism by which NDCs must be strengthened every five years. The UK updated its NDC in the first half of 2021. Under Article 7, the agreement requires all signatories to engage in adaptation planning and implementation. The UK enacted this through the 2050 Target Amendment Order (2019) to the Climate Change Act.

#### EIA Directive 2011/92/EU (as amended)

6.4. The EIA Directive 2011/92/EU sets out the requirement to undertake an Environmental Impact Assessment (EIA). Directive 2011/92/EU was amended by Directive 2014/52/EU (Official Journal of the European Union, 2014). The amendment included the introduction of an express requirement to describe the likely significant effects resulting from the impact of a development on climate change. The amendment also requires the vulnerability of the proposed development to climate change to be considered. The EIA Directive still applies to UK law through the Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 (SI 2018/1232).

### National Policy

#### Climate Change Act 2008 (2050 Target Amendment) Order 2019

6.5. The Climate Change Act 2008 (hereafter referred to as the ‘Act’) provides a framework to meet the UK’s greenhouse gas (GHG) emission reduction goals through legally binding national carbon emission caps within five-year periods. The Act was amended in 2019 to revise the existing 80% reduction target and legislate for net zero emissions by 2050.

6.6. A trajectory for the UK to achieve its carbon reduction targets is set out through a series of 5-year carbon budgets, which provide maximum emissions limits for greenhouse gas emissions. The carbon budgets are set to align with the 78% by 2035 reduction target, as announced in April 2021, on a pathway to net zero emissions by 2050.

6.7. This Act defines ‘net zero’ carbon as “the amount of net UK emissions of targeted greenhouse gases for a period adjusted by the amount of carbon united, credited or debited for the year 2050”.



This means that by 2050, emissions will have to be avoided completely or offset by removal from the atmosphere and/ or traded in carbon units.

#### [Transport Decarbonisation Plan \(DfT, July 2021\)](#)

- 6.8. Decarbonising Transport: A Better Greener Britain: This plan sets out the government's commitments and the actions needed to decarbonise the entire transport system in the UK. It includes:
- a. Our pathway to net zero transport in the UK,
  - b. The wider benefits net zero transport can deliver and
  - c. The principles that underpin our approach to delivering net zero transport.
- 6.9. The plan follows on from 'Decarbonising transport: setting the challenge' (published in March 2020), which laid out the scale of additional reductions needed to deliver transport's contribution to legally binding carbon budgets and delivering net zero by 2050.

### National Planning Policy and Guidance

#### [National Planning Policy Framework](#)

- 6.10. Chapter 14. Meeting the challenge of climate change, flooding and coastal change – para 152 requires that *'the planning system should support the transition to a low carbon future in a changing climate taking full account of flood risk.... It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.'*

#### [Planning Practice Guidance \(PPG\)](#)

- 6.11. PPG on Climate Change advises how to identify suitable mitigation and adaptation measures in the planning process to address the impacts of climate change. Paragraph 001 states that: *'effective spatial planning is an important part of a successful response to climate change as it can influence the emission of greenhouse gases... Planning can also help increase resilience to climate change impact through the location, mix and design of development.'*

### Local Planning Policy and Guidance

#### [Oxfordshire County Council Local Transport and Connectivity Plan \(LTCP\) 2022 - 2050](#)

- 6.12. The LTCP published in 2022 has a vision for *"an inclusive and safe net-zero Oxfordshire transport system"*. One of its headline targets is to *"deliver a net-zero transport network"* by 2040.
- 6.13. Policy 27 notes that the Council will:
- A. Follow the embodied carbon reduction hierarchy in our decisions about transport infrastructure.
  - B. Take into account embodied, operational and user emissions when assessing a potential infrastructure project and its contribution to Oxfordshire's carbon budget and to a net-zero transport network by 2040.
  - C. Require a science-based percentage of embodied carbon reduction from baseline in infrastructure projects.
  - D. Use PAS 2080 to assess, manage and minimise carbon emissions in transport infrastructure projects throughout the project lifecycle, including maintenance.
  - E. Any offsets needed to achieve net-zero must be certified, additional and deliver local benefits.
  - F. Work with contractors to reduce materials, source local and recycled materials, use less carbon-intensive transport options and building methods, and generate less waste."

### Local Planning Policy and Guidance

#### [Vale of White House District Council \(VoWHDC\) Local Plan 2031, adopted in 2016](#)

- 6.14. Relevant core policies include:



1. Core Policy 33 - Promoting sustainable transport and accessibility. *“The Council will work with Oxfordshire County Council and others to: inter alia i. actively seek to ensure that the impacts of new development on the strategic and local road network are minimised...”*
2. Core Policy 35 - Promoting public transport, cycling and walking. *“The Council will work with Oxfordshire County Council and others to: inter alia i. encourage the use of sustainable modes of transport and support measures that enable a modal shift to public transport, cycling and walking in the district.”*
3. Core Policy 40 - Sustainable design and construction. *“The Council encourages developers to incorporate climate change adaptation and design measures to combat the effects of changing weather patterns in all new development...”*
4. Core Policy 42 - Flood risk. *“The risk and impact of flooding will be minimised through: i. directing new development to areas with the lowest probability of flooding; ii. Ensuring that all new development addresses the effective management of all sources of flood risk; iii. Ensuring that development does not increase the risk of flooding elsewhere, and iv. Ensuring wider environmental benefits of development in relation to flood risk.”*
5. Core Policy 43 - Natural resources. *“The Council encourages developers to make provision for the effective use of natural resources where applicable, including: inter alia ...ii. Using recycled and energy efficient materials, iii. Maximising passive solar heating, lighting, natural ventilation, energy and water efficiency and re-use of materials...”*
6. Core Policy 46 - Conservation and improvement of biodiversity

#### Vale of White House District Council Climate Action Plan 2022-2024

- 6.15. This plan sets out how VoWHDC will achieve its targets of becoming a carbon neutral council by 2030, with a 75 percent reduction in its emissions by 2025, and becoming a carbon neutral district by 2045, with a 75 percent reduction in emissions across the district by 2030.

#### South Oxfordshire District Council Local Plan 2011-2035, adopted in 2020

- 6.16. Relevant policies include:
1. Policy DES7 – Efficient Use of Resources. *“New development is required to make provision for the effective use and protection of natural resources where applicable, including: inter alia ...ii) minimising waste and making adequate provision for the recycling, composting and recovery of waste on site using recycled and energy efficient materials; iii) maximising passive solar heating, lighting, natural ventilation, energy and water efficiency and the re-use of materials...”*
  2. Policy DES8 - Promoting sustainable design. Relevant points include *“1. All new development...should seek to minimise the carbon and energy impacts of their design and construction. Proposals must demonstrate that they are seeking to limit greenhouse gas emissions through location, building orientation, design, landscape and planting taking into account any nationally adopted standards and in accordance with policies DES10 and DES7. 2. All new development should be designed to improve resilience to the anticipated effects of climate change. Proposals should incorporate measures that address issues of adaptation to climate change taking account of best practice. These include resilience to increasing temperatures and wind speeds, heavy rainfall and snowfall events and the need for water conservation and storage.”*

#### South Oxfordshire District Council Climate Action Plan 2022-2024

- 6.17. This plan sets out how South Oxfordshire District Council will achieve its targets of becoming a carbon neutral council within its own operations by 2025, and becoming a carbon neutral district by 2030. Quarterly reports will be published to outline progress against the measures in the plan.

## Climate Emissions

- 6.18. The assessment has shown that overall the scheme is expected to lead to a reduction in carbon emissions over the lifetime of the project as a result of a reduction in congestion and journey times due to improvements to the road network, which is beneficial and in line with national and local policy. It would have been useful to have greater transparency over the input and output data used in the assessment, however, the additional information is unlikely to change the outcome of the



assessment, and further detail can be provided within a carbon management plan, which is recommended to be produced prior to construction.

## Climate Emissions Comments

- 6.19. Chapter 15 of the ES includes the assessment of the impact of the development on climate. The chapter sets out that the total greenhouse gas emissions from the construction phase of the development are estimated to be around 154,840 tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) over the course of the construction period between 2023 and 2025. The majority of emissions are associated with embodied carbon in construction materials accounting for approximately 83% of all construction emissions, with the remainder derived from land clearance, fuel used on site, and transportation of workers and materials and waste to and from site.
- 6.20. The net difference in greenhouse gas emissions during the operational phase of the development compared to the situation without the development is estimated to be a reduction of 1,074 tCO<sub>2</sub>e per year in the opening year of 2025 and a reduction of 1,226 tCO<sub>2</sub>e in the design year of 2034 compared to the situation without the development. The saving in emissions is due to a reduction in congestion and journey times, resulting from the improvements to the road network. Operational emissions are expected to fall further in future years with the projected uptake of increased electric vehicles. No information has been provided for the 60 year appraisal period from the scheme opening year, although it can be assumed that there would be an overall reduction over this period as a result of the implementation of the scheme.
- 6.21. Oxfordshire County Council's letter dated 26<sup>th</sup> April 2022 had three comments on the climate effects assessment requesting further information on operational emissions arising from induced demand for car travel, a request for a Climate Change Position Statement, and clarification over whether the OCC Climate Change Impact Assessment Tool had been used for the assessment.
1. The Applicant has responded in their Regulation 25 Response, at section 5 to the points raised, and has issued a Climate Change Position Statement, and the results from the Climate Impact Assessment at Appendices K and L of the Regulation 25 Response, respectively.
  2. There are no further comments on the response regarding operational emissions, nor on the Climate Impact Assessment Tool, which OCC would be in a better position to comment on, given that this is their tool, although it is noted that there would be a positive impact arising from the improvements to active travel and public transport with the scheme leading to potential behavioural change.
  3. However, regarding the Climate Change Position Statement it is noted that although the Applicant has addressed all the key points requested, there are some further comments discussed below.

### Measures

- 6.22. Although the Applicant has provided a summary of measures to be implemented during construction and operation, they are not clearly separated out between those measures already embedded in the design to date, and those that should be secured by condition. There are also a number of aspirational measures included which will need further examination during design development once a principal contractor is on board.

### Oxfordshire Local Transport and Connectivity Plan

- 6.23. The Position Statement addresses the key net zero carbon policies, however, it is not clear why road safety policies are addressed within this Statement.

### Modal Shift/ Active and Sustainable Travel

- 6.24. Although the Applicant notes that the scheme encourages modal shift to cycling and walking both directly and indirectly, there is no detail regarding how any indirect measures would be secured within the planning application, nor is there any distinction in the Statement about which measures are direct or indirect.
- 6.25. It is noted that there are no explicit bus priority measures as a result of this scheme.



## Climate Emissions Summary

- 6.26. The development scheme is expected to have an overall carbon saving as a result of a reduction in traffic congestion. This reduction in emissions is in line with national, regional and local policy, specifically the climate act, the transport decarbonisation plan, the NPPF, the LTCP, and the Climate Action Plans for VoWHDC and South Oxfordshire, as well as VoWHDC's Core Policy 43, and South Oxfordshire's policies DES 7 and 8. It is therefore considered unlikely that the scheme will have a significant adverse effect on climate.
- 6.27. The Applicant notes in the Climate Positive Statement provided in the Regulation 25 Response that the scheme is also expected to encourage modal shift to cycling and walking which is in line with VoWHDC's Core Policies 33 and 35 and OCC LTCP.

**Recommendation: No objection subject to conditions requiring a carbon management plan be submitted and approved prior to start of construction.**

## Climate Emissions Conditions:

- 6.28. It is recommended that conditions addressing the following issues are required:

### Carbon Management Plan

- 6.29. A carbon management plan in accordance with PAS 2080 should be developed by the contractor prior to construction which should be agreed with Oxfordshire County Council. The carbon management plan is a live document which should be updated throughout the project lifecycle to report on the implemented opportunities and any carbon reductions achieved, as well as identifying opportunities to reduce carbon emissions. It should include the following components: quantification of carbon emissions; target setting, baseline setting and monitoring; reporting; and continual improvement.

### Traffic Monitoring

- 6.30. It is further recommended that traffic monitoring is undertaken to ensure that there is a reduction in road user carbon emissions in line with expectations.

## Climate Vulnerability

- 6.31. Climate vulnerability impacts on the scheme have been assessed as not significant during construction and operational Stages. This finding is not fully evidenced in the application by the provision of details about the mitigation proposed for each potential impact. It is expected that additional information about this mitigation is unlikely to change the outcome of the assessment as it is likely that climate vulnerability impacts would be avoided on this project by good design practice (which would include mitigation in the design) and adherence to appropriate standards. The mitigation, if implemented, would contribute to national and local policy. It is therefore recommended that there is no objection subject to conditions. The conditions imposed will provide confidence that the applicant has included, and maximised the potential benefits of, mitigation to avoid significant climate vulnerability impacts.

## Climate Vulnerability Comments

- 6.32. The following information and/or clarification have been provided by the applicant in response to queries raised in the Regulation 25 Letter:
- A new Appendix K climate impact assessment has been provided by the applicant that includes:
    - An outline of some of the scheme benefits.
    - Further details about the climate change allowances selected for the FRA that have been consulted on.
    - Some additional details about embedded mitigation.
- 6.33. No response has been provided to a number of issues raised in the Regulation 25 response, these include:
- The LA 114 assessment method referenced is out of date. There is a 2021 update that contains some requirements that are not included in the ES chapter.



- No updated baseline or clarification of which representative concentration pathway (RCP) is used and new graphs to make the presentation of trends clearer have not been provided.
- More than three potential climate vulnerability impacts would be expected for this type of scheme. The climate change position statement does not cover the wider scope of impacts requested. This is also not addressed by the resilience and adaptation section within the new climate impact assessment.
- A summary list of potential climate vulnerability impacts is still missing.
- There has been no response on why there is no monitoring or additional mitigation for climate vulnerability impacts.
- No additional details have been provided describing the outcome of the In-combination Climate Change Impact (ICCI) assessment.

## Climate Vulnerability Summary

- 6.34. Although it is not fully evidenced by the applicant in the assessment, it is expected that significant climate vulnerability impacts would be avoided on this project by good design practice and adherence to appropriate standards to ensure compliance with the policy set out at the beginning of Section 6 of this report. The conditions imposed will provide confidence that the applicant has included mitigation to avoid significant climate vulnerability impacts.

**Recommendation: No objection subject to conditions securing appropriate mitigation**

## Climate Vulnerability Conditions

- 6.35. It is recommended that conditions addressing the following issue are required:

### Climate vulnerability risk assessment annex

- 6.36. A revised, LA 114 compliant, climate vulnerability risk assessment table for operational impacts must be prepared by the lead designer. It must contain details of the mitigation (embedded and additional) proposed for each of the potential climate vulnerability impacts identified in the application. Impacts and their mitigation must be individually assessed and not grouped by climate hazard or lifecycle stage. The table should include consideration of how:
- Climate change will affect pot hole formation. Heavier rain and wetter winters will weaken the soil beneath the carriageway. Loads from traffic may then stress the surface past its breaking point more often. How does the design address this?
  - Climate change could adversely affect soil stability impacting structures. This could affect physical assets (e.g. foundations) as well as semi natural features (e.g. embankments) and natural structures (e.g. trees). Impact pathways include: subsidence, changed earth pressures (gw levels), heave (wetter winters), washout of structural soils (already mentioned in report), soil saturation (wetter winters). How will the design address this?
  - Drier summers combined with the projected increase in summer temperatures could lead to increased erosion as soils and their substrates dry out. How might this affect the drainage design - what mitigation is there for sediment loads in drainage?
  - Climate change vulnerability impacts associated with landscaping. For example, an adapted planting species selection to mitigate future drier soils and set back of trees from the carriageway in case of storm damage or lightning strike.

## Construction mitigation

- 6.37. Mitigation for potential extreme weather events that could affect construction (assets, construction processes and construction workers) must be included within the Code for Construction Practice.



## 7. Agriculture and Soils

- 7.1. An assessment of potential impacts on soil resources, agricultural land and agricultural land holdings has been completed by the applicant and reported in Chapters 11 and 13 of the ES in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended). This section reports on both Chapters 11 and 13, covering compliance with relevant policies and guidelines and outline wording for conditions.
- 7.2. No comments were received during the consultation process concerning impacts of the proposed scheme on agricultural land and holdings.

### Key planning application documents referred to as part of review (not exhaustive list)

- 7.3. The following documents have been referred to as part of the review by a specialist with more than 30 years' experience in agriculture and soils:
1. Letter Dated 26th April 2022 from Oxfordshire County Council to Jonathan Hill, AECOM, ref R3.0138/21.
  2. Regulation 25 Response, Didcot Garden Town HIF1, Oxfordshire County Council dated November 2022, prepared by Aecom.
  3. Didcot HIF1 ES Vol I Chapter 11 Geology and Soils, Sept 2021 (sections on Soil Resources and Agricultural Land).
  4. Didcot HIF1 ES Vol II Chapter 11 Geology and Soils Figures, Sept 2021.
  5. Didcot HIF1 ES Vol III Appendix 11-2 Agricultural Land Classification and Soil Resources, Sept 2021.
  6. Didcot HIF1 ES Vol I Chapter 13 Population and Human Health, Sept 2021 (sections on Agricultural Land Holdings).
  7. Didcot HIF 1 ES Volume III Appendix 13-1, March 2022 Agricultural Circumstances
  8. Site visit made by Askew Land and Soil, on behalf of Atkins, to look at the farms whose impact assessments are in ES Chapter 13 Population and Health, January 2022.

### Relevant Policy and Guidance

- 7.4. A summary of policies and guidance relevant to agricultural land is provided below. These relate only to protection of soil resources and agricultural land. There are so policies specific to the protection of agricultural holdings.

### International Policy and Legislation

- 7.5. There is no adopted legislation at European Union (EU) or national level specifically relating to soil protection, although soils are indirectly protected by other legislation such as that covering the prevention of pollution, contamination, and for land use planning.

### National Policy and Guidance

- 7.6. There is no adopted legislation at European Union (EU) or national level specifically relating to soil protection, although soils are indirectly protected by other legislation such as that covering the prevention of pollution, contamination, and for land use planning.

### National Planning Policy Framework

- 7.7. Paragraph 174 of the National Planning Policy Framework (NPPF) recognises the economic and other benefits of the best and most versatile (BMV) agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of higher quality.
- 7.8. Building on the NPPF, the 2021 Planning Practice Guide to assessing development proposals on agricultural land states that planning authorities must consult Natural England on all non-agricultural



applications that result in the loss of more than 20 hectares (ha) of BMV land if the land is not included in a development plan.

## Local Planning Policy and Guidance

### South Oxfordshire Local Plan 2035

- 7.9. Policy DES7 Efficient use of Resources: states that the development of BMV agricultural land should be avoided, unless it is demonstrated to be the most sustainable choice from reasonable alternatives, by first using areas of poorer quality land in preference to that of a higher quality.

### South Oxfordshire Design Guide 2020

- 7.10. Alongside the Local Plan, the South Oxfordshire Design Guide contains a detailed analysis of both natural and man-made aspects of the District and detailed design advice. It was adopted by the Council in April 2020, and is a Supplementary Planning Document (SPD), so is a material consideration in planning decisions. The need to protect the rural agricultural landscape character is stressed. However, it contains no guidelines in relation to the protection of agricultural soils and BMV land, except with regard to renewable energy installations.

### The Vale of White Horse District Council (VoWHDC) Local Plan 2031

- 7.11. This plan contains no specific policies specific to the protection of agricultural soils, or BMV land. However it does support a prosperous rural economy through the support of agricultural businesses.

### Oxford Local Plan, adopted 2020

- 7.12. There are no policies within the Oxford Local Plan concerning the protection of agricultural soils and BMV land.

## Comments

- 7.13. An assessment of potential impacts on soil resources, agricultural land and agricultural land holdings has been completed by the applicant.
- 7.14. The assessments are compliant with legislation and policy and mostly reflect assessment guidelines considered suitable to support the planning application. The Scoping Opinion and Responses in Chapter 11, Table 11.1 of the ES relating to the loss of Best and Versatile (BMV) land have been addressed.
- 7.15. It is noted that no comments were received from other consultees on the planning application and Regulation 25 response concerning impacts of the proposed scheme on agricultural land and holdings.
- 7.16. It is also noted that the applicant's estimate of 307 ha of agricultural land impacted by the scheme is substantially higher than the proposed landtake area of 155 ha for permanent and temporary works, which is presented elsewhere in the ES and other documents. This means that the applicant's estimate of the area of land of BMV quality (Grade 2 and Subgrade 3a) affected is incorrect although it is considered that the impact of the scheme it still likely to be significant.
- 7.17. ES Vol II Appendix 13. Agricultural Circumstances Report contains summaries of farm impact assessments carried out through interviews with all affected landowners.
- 7.18. Of the four of agricultural holdings assessed by the applicant as significantly affected during the construction phase, two of these holdings would have permanent residual effects. This is considered to be an overestimate due to the applicant's noise impact assessment for housed livestock on Zouch Farm and Fullamore Farm, which used the distance threshold of 100 metres from the scheme rather than the normal threshold used on linear infrastructure projects of 40 metres.
- 7.19. It is also considered doubtful that Fullamore Farm would suffer the impediments to vehicle movements reported by the applicant as alternative access arrangements can be provided during construction.



## Summary

- 7.20. An assessment of potential impacts on soil resources, agricultural land and agricultural land holdings has been completed by the applicant. The assessments are compliant with legislation and policy and mostly reflect assessment guidelines considered suitable to support the planning application. The Scoping Opinion and Responses in Chapter 11, Table 11.1 of the ES relating to the loss of Best and Versatile (BMV) land have been addressed.
- 7.21. It is noted that no comments were received from other consultees on the planning application and Regulation 25 response concerning impacts of the proposed scheme on agricultural land and holdings.
- 7.22. Whilst the assessments of the impact of the scheme on agricultural holdings is considered to be sufficiently detailed to support this planning application, it is considered that the applicant has overestimated the residual effect assigned to two of the farms, which would be substantially less if the correct thresholds are applied.
- 7.23. Taking this into consideration, and the assumption that substantially less BMV and agricultural land is impacted than the applicant has estimated in their assessment as indicated above, it is recommended that there is no objection subject to conditions. This is noting that it is acknowledged for a linear infrastructure scheme of this nature that engineering considerations of agricultural land impacts usually make it impractical to change the route alignment to avoid areas of BMV land.

**Recommendation: No objection subject to conditions.**

## Conditions

- 7.24. It is recommended that a condition addressing the following issue is required:

### Soil Handling and Management Plan (SHMP)

- 7.25. Agricultural land temporarily acquired during construction, not required for soft landscaping, must be restored to its original capability. This will be achieved through the implementation of a Soil Handling and Management Plan (SHMP), in line with Defra's Code of Practice for the Sustainable Use of Soils on Construction Sites, so there will be no long-term adverse impact on this land.

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