



Appendix 3.5

RESPONSE TO ARUP REVIEW COMMENTS

London Borough of Hillingdon

Hillingdon Water Sports Facility and Activity Centre (HWSFAC) - Broadwater Lake

Environmental Statement Interim Review Report

Reference: 294428-00/AEC

1.0 | 19 December 2023

Interim



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Contents

1.	Introduction to the review	3
2.	Review of proposed development and site information	6
3.	Review of ES format, presentation and scope	10
4.	Chapter 7: Biodiversity	12
5.	Chapter 8: Water resources and flood risk	16
6.	Chapter 9: Ground conditions and contamination	18
7.	Chapter 10: Landscape and visual impact assessment	21

1. Introduction to the review

1.1 Introduction

1.1.1 Ove Arup & Partners Limited ('Arup') has been appointed by Hillingdon Council Strategic and Major Applications Team, as the Local Planning Authority ('LPA'), to provide an independent review of the Environmental Statement ('ES'), dated November 2023 and prepared by Quod, submitted by Hillingdon Council Development Team (the 'Applicant') with an application (Ref: 2382/APP/2023/2906) for the new Hillingdon Water Sports Facility and Activity Centre ('HWSFAC') (from herein the 'proposed development'). The proposed development is located at Broadwater Lake, Moorhall Road, Harefield, Uxbridge, UB9 6PE (the 'site').

1.1.2 The proposed development, as described, comprises:

“Redevelopment of the site to create the Hillingdon Watersports Facility and Activity Centre including demolition of existing Broadwater Lake Sailing Club (BSC) clubhouse at the north of the lake and erection of a building to be occupied by HOAC and BSC including changing facilities, meeting rooms, storage, Workshop and seasonal worker accommodation (sui generis), activity shelters; installation of pontoons and concrete slipways; boat shed; equipment storage huts (north of lake and at entrance); boat parking and racking areas; camping area; outdoor activity areas; ecological enhancement throughout the site; new pedestrian routes through the peninsula; landscaping including new woodland, dense vegetation screens and boundary treatment; new access and access road; localised dredging and land reclamation; relocation of existing sailing area and creation of floating and fixed islands within the lake; coach drop off and turning area; vehicle parking; cycle parking; and associated works.”

1.1.3 This report identifies whether the submitted ES meets the requirements set out in Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017¹ (as amended)² (hereafter referred to as the EIA Regulations), including:

- a description of the proposed development comprising information on the site and its location and characteristics, design, size and other relevant features or land-use requirements of the proposed development during its construction and operational phases;
- a description of the reasonable alternatives studied by the Applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment;
- a description of the likely significant effects of the proposed development on the environment;
- a description of any features of the proposed development, or measures envisaged in order to avoid, prevent, reduce or, if possible, offset likely significant adverse effects on the environment;
- a non-technical summary (NTS) of the information referred to above; and
- any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.

1.1.4 Furthermore, in accordance with Regulation 18(4), the ES must be 'based on the most recent scoping opinion' which was adopted by the LPA on 19 May 2023 (Ref: 2382/APP/2023/525). The adopted scoping opinion should be read in conjunction with the submitted scoping report (dated February 2023).

1.1.5 As well as the adopted scoping opinion and Schedule 4 criteria, this ES review has taken into account the Institute of Environmental Management and Assessment (IEMA) ES Review Criteria and relevant

¹ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 Available at: <http://www.legislation.gov.uk/uksi/2017/571/contents/made>

² The Town and Country Planning and Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2018 Available at: <https://www.legislation.gov.uk/uksi/2018/695/regulation/2/made>

1.2 The ES review process

- 1.2.1 This report constitutes the Interim ES Review Report IERR, which collates the findings of the ES review. Each report section provides a list of ‘**clarifications required**’, along with potential gaps or errors identified in the ES which may require the LPA to request further environmental information from the Applicant under Regulation 25 of the EIA Regulations - ‘**potential Regulation 25 information requests**’. Identifying aspects of the ES that require clarification does not preclude the future need for the LPA to request further environmental information from the Applicant to address the points raised. Equally, should the Applicant response to the clarification either prompt further queries or confirm that an aspect of the assessment has an omission or error, then further environmental information to address the issues raised may need to be submitted and consulted upon by the LPA under Regulation 25 of the EIA Regulations.

1.3 Structure of the submitted ES, subject of this review

- 1.3.1 This review has been undertaken on all volumes of the submitted ES which is structured as follows:

- **Non-technical Summary**
- **ES: Volume 1**
 - Chapter 1: Introduction
 - Chapter 2: Site and Setting
 - Chapter 3: EIA Methodology
 - Chapter 4: Alternatives
 - Chapter 5: Description of the Development
 - Chapter 6: Construction
 - Chapter 7: Biodiversity
 - Chapter 8: Water Resources and Flood Risk
 - Chapter 9: Ground Conditions and Contamination
 - Chapter 10: Landscape and Visual Impact Assessment
 - Chapter 11: Summary
- **ES: Volume II**
 - Appendix 2.1: Historical Photographs of Broadwater Lake
 - Appendix 2.2: Site Photographs
 - Appendix 3.1: Location of Specified Information in the ES
 - Appendix 3.2: EIA Scoping Report (February 2023)
 - Appendix 3.3: LBH EIA Scoping Opinion
 - Appendix 3.4: Response to Draft Scoping Opinion
 - Appendix 4.1: Alternative Site Assessment
 - Appendix 4.2: Alternative Peninsula Layouts
 - Appendix 5.1: Planning Application Drawings
 - Appendix 5.2: Landscape Strategy
 - Appendix 6.1: Outline Construction Environmental Management Plan
 - Appendix 6.2: Construction Phasing Drawings
 - Appendix 7.1: Preliminary Ecological Appraisal Including (PEA) Including 2022 and 2023 Survey Report (February 2023)
 - Appendix 7.2: Figures
 - Appendix 7.3: SSSI Impact Assessment
 - Appendix 7.4: Draft Mitigation and Ecological Management Plan (MEMP) Vol 1

³ Planning Practice Guidance, Environmental Impact Assessment, last updated 13 May 2020 [Environmental Impact Assessment - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/planning-practice-guidance-environmental-impact-assessment)

- Appendix 7.5: Draft Mitigation and Ecological Management Plan (MEMP) Vol 2 Parts A-D
- Appendix 7.6: Wintering Bird and Disturbance Survey Report (October 2023)
- Appendix 7.7: Breeding Bird Survey Report (August 2023)
- Appendix 7.8: Invertebrate Survey Report (August 2023)
- Appendix 7.9: Ecology Report (terrestrial habitats, lacustrine habitats, survey for invasive non-native species, badger, otter, water vole) (October 2023)
- Appendix 7.10: Bat Survey Report (October 2023)
- Appendix 7.11: Biodiversity Net Gain Assessment
- Appendix 7.12: Biodiversity Air Quality Modelling Assessment
- Appendix 7.13: Natural England Discretionary Advice
- Appendix 8.1: Relevant Legislation and Policy
- Appendix 8.2: Flood Risk, Drainage and Sequential Assessment (including topographic and bathymetric data)
- Appendix 8.3: Groundwater Risk Assessment
- Appendix 8.4: Water Framework Directive Assessment
- Appendix 8.5: Lake Water Column Profiles
- Appendix 8.6: Bathing Water Assessment
- Appendix 8.7: Draft Lake Management Plan
- Appendix 9.1: Relevant Planning Policy
- Appendix 9.2: Geo-Integrity Phase I Geo-Environmental Assessment & Site Walkover September 2023
- Appendix 9.3: Geo-Integrity Phase II Geo-Environmental Site Investigation September 2023
- Appendix 9.4: Drawing 1 Landfill Locations Within the Study Area
- Appendix 9.5: Preliminary Explosive Ordnance Risk Assessment
- Appendix 10.1: Planning Policy and Local Guidance Context
- Appendix 10.2: Proposed Landscape and Ecological Masterplans
- Appendix 10.3: Figures
- Appendix 10.4: Photographs of Site From Key Viewpoints
- Appendix 10.5: Accurate Visual Representations (AVRS) of Proposed Development
- Appendix 10.6: Stage 1 and 2 Arboricultural Impact Assessment Report

2. Review of proposed development and site information

2.1 Description of the site

- 2.1.1 The site, its setting and characteristics are described in ES Volume 1, Chapter 1 and Chapter 2 and associated Volume II appendices. The ES provides a clear summary of the site characteristics and its environmental context, subject to the comments set out below.
- 2.1.2 The site is located within London Borough of Hillingdon, approximately five kilometres north of Uxbridge town. The site covers an area of 79.95 hectares (ha). The majority of the site comprises Broadwater Lake (approximately 62 ha) along with a number of small islands boarded by trees and scrub. The site comprises a number of former quarry structures on and in vicinity of the peninsula shaped landform (the ‘peninsula’) which occupies the southern part of the site. Broadwater Lake is the largest of the four lakes within the Mid Colne Valley Site of Special Scientific Interest (SSSI).
- 2.1.3 The site is divided into four parcels including the main Broadwater Lake, access road (via Moorhall Road), eastern parcel and southern parcel which are shown in Chapter 2, Figure 2.2. The planning application boundary aligns with the site boundary considered as part of the adopted scoping opinion.
- 2.1.4 The part of the site that contains Broadwater Lake is bound to the east by the London Loop/Colne Valley Public Right of Way and Grand Union Canal; to the north and east by the River Colne and to the south by the Harefield Moor Lake waterbody; to the west, the site is bound by the River Colne and the small body of water known as the Denham Waterski Lake.
- 2.1.5 The area of site that contains the access road which connects the south parcel to Broadwater Lake, is bound by hedgerow and the London Loop to the east. Existing businesses including GRS Bagging, a construction material wholesaler, Harleyford Aggregates and a sand and gravel supplier, are located to the west of the access road together with formal and semi-formal residential properties. The term ‘semi-formal’ residential properties used in ES Volume 1, Chapter 2, paragraph 2.2.4 is not clear.
- **Clarification required: Confirm the sensitivity and location of the ‘semi-formal’ residential properties mentioned in ES Volume 1, Chapter 2, paragraph 2.2.4 and that these properties have been fully assessed.**
- 2.1.6 The east parcel is bound by the Grand Union Canal to the west, a logistics facility (Mayling Transport) to the south and residential properties in Harefield to the east. The south parcel is bound by Moorhall Road to the south, Harefield Moor Lake waterbody to the north and Korda Lake to the west.

2.2 Description of the proposed development

- 2.2.1 The proposed development is described in ES Volume I, Chapter 5 and Chapter 6 which includes details of the proposed activities during the construction phase.
- 2.2.2 The proposed development will create a new water sports facility and activity centre for the Hillingdon Outdoor Activity Centre (‘HOAC’) and Broadwater Lake Sailing Club (‘BSC’) with the following key features and activities:
- Construction of new buildings including a main building for HOAC and BSC, boat shed, workshop and activity centre storage, seven activity shelters, toilet block, energy centre and anglers hut with a total new floorspace area equal to 4,749 square metres (sqm) gross external area (GEA).
 - Localised dredging to increase depths for sailing activities, land reclamation of 16,114 sqm to extend the peninsula, removal of two existing small islands in the middle of Broadwater Lake (2,412 sqm), creation of a beach area (approximately 300 sqm) and creation of smaller islands using dredged material (4,307 sqm). ES Volume 1, Chapter 5, paragraph 5.4.2 states that dredging details will be confirmed once a contractor has been appointed. An estimated cut / dredge volume of 47,500 cubic metres is provided in Chapter 6, paragraph 6.5.4 which equals the required fill volume. The land reclamation and many of the landscaping features to be created rely on the use of dredged material. It is not clear what measures are in place should further site investigation or testing indicate that the dredge material is not suitable for re-use and the required ‘fill’ volume of

47,500 cubic metres cannot be met. It is also not clear whether there will be a need for any future management of the lake sediments to maintain the new depths.

- Removal of three existing BSC pontoons and installation of three new floating pontoons and two concrete slipways on the reclaimed land, to allow access to the water and for mooring sailing dinghies.
- Use of part of Broadwater Lake for water-based recreational activities (the overall surface water area of Broadwater Lake will be reduced by 13,956 sqm).
- Camping area and outdoor land-based activities field for archery, high- and low-level ropes, zip wire, swings, man-made caving system and pond dipping.
- New open boat yard area for storage of up to 400 boats along with 82 car parking spaces.
- Package of landscape and ecological mitigation measures and enhancements.

- **Clarification required: The proposed development appears to include a number of additional buildings categorised under ‘other buildings’ which increases the overall footprint of the proposed development. Noting the site is within green belt, confirm whether it is possible to consolidate any of the buildings to reduce the overall development footprint.**
- **Potential Regulation 25 request: Further information is needed on the proposed dredge depths to provide confidence that the 47,500 cubic metres fill volume can be achieved. Confirm what measures will be put in place should the fill volume not be matched by the proposed dredge volume. Confirm whether there would be any intention to import additional material for land reclamation or what measures would be in place should dredged material need to be removed from the site.**
- **Potential Regulation 25 request: Confirm what measures will be in place to maintain the new dredge depths within Broadwater Lake and the likely impacts of any future dredging requirements.**
- **Potential Regulation 25 request: No details are provided on what the man-made caving system will entail, along with other proposed activities in the outdoor area such as the high- and low-level ropes and zip wire. Confirm how the man-made caving system, along with other elements in the outdoor activity area, will be constructed and whether any excavation or foundation works will be required.**

2.2.3 The Scoping Report indicated that the existing Broadwater Rowing Club which currently forms part of the existing HOAC facilities, would be accommodated in the new facilities. It is not clear what the intention is for the Broadwater Rowing Club i.e. whether its associated activities will continue at the site or if these have been assumed to comprise part of the BSC activities.

- **Clarification required: Confirm whether the Broadwater Rowing Club will continue to operate at the site as part of the new HOAC facilities and if so, confirm where these facilities will be located.**

2.2.4 During the scoping process, the maximum height of the new buildings was stated as being up to 6.2 metres (m). Chapter 5, Table 5.3 indicates that two of the new proposed buildings, the main building and workshop, will exceed that height, reaching 7.04 m and 10.98 m, respectively. However, it is acknowledged that the Applicant has scoped in the topics of landscape and visual amenity to the ES for detailed assessment (ES Volume 1, Chapter 10), given the exceedance of the scoped maximum height.

2.2.5 Section 5.8 onwards of ES Volume 1, Chapter 5 sets out a description of various measures and management plans that will be implemented as part of the proposed development. It is not clear which of the measures listed within this chapter are considered as ‘embedded mitigation’ and which measures are considered as ‘additional mitigation’. The lists are not comparable with those set out in the technical chapters, for example, ES Volume 1, Chapter 7, paragraph 7.5.4 does not compare with Section 5.8 and Chapter 11 only provide a high-level summary.

- **Clarification required: Confirm which measures have been considered embedded mitigation and taken into account as part of the pre-mitigation technical assessments, and which measures are considered additional mitigation. The list should be more detailed and consistent with that described in ES Volume 1, Chapter 11, Summary.**

2.2.6 ES Volume 1, Chapter 5, paragraph 5.8.10 reports a biodiversity net gain (BNG) of 35.26 biodiversity units associated with area-based habitats compared with pre-development value. This is equivalent to

a 3.59 % net gain with trading rules satisfied. Paragraph 174 of the adopted National Planning Policy Framework (NPPF, 2021) sets out a mandatory requirement for certain developments to achieve a minimum of 10% BNG.

- **Potential Regulation 25 request: Provide further information to demonstrate that the proposed development has sought to maximise BNG towards the minimum 10% requirement and explore further opportunities to improve and enhance biodiversity at the site.**

2.2.7 ES Volume 1, Chapter 5, paragraph 5.8.9 states that the BNG assessment does not ‘specifically include an assessment of the value of said habitat(s) for protected species / groups of species. This is an important note to consider because although the proposals can be demonstrated to have an overall small net gain for biodiversity, the actual value, in qualitative terms for the faunal species that use these habitats is considered in our professional opinion to be significantly greater.’ While the BNG assessment is reporting a small gain for habitats, it is likely the opposite is true for species given the levels of disturbance and increased land-based activity at the site. This point is discussed further in the review of the biodiversity assessment in Section 4 of this report.

Construction

2.2.8 The description of enabling works, dredging, land reclamation, construction and demolition works of the project is clear and includes an indicative programme of activities. The proposed development works are expected to commence in Q3 2024 and be completed by the end of Q3 2025.

2.2.9 ES Volume 1, Chapter 6, paragraph 6.8.19 states that High Speed Two (HS2) construction works will be complete in December 2023, prior to commencement of the proposed development enabling works in June 2024, and so no overlap with the HS2 construction programme is expected. However, this contradicts ES Volume 1, Chapter 3, paragraph 3.6.6, which states that the Colne Vally Viaduct is due to be completed by mid-2025.

- **Potential Regulation 25 request: Confirm when construction of HS2 is expected to be completed and whether there is likely to be any overlap with the proposed development construction works during 2024, particularly along Moorhall Road. Assess the likely cumulative construction impacts of the proposed development alongside HS2.**

2.2.10 Under the proposed construction programme, enabling works are expected to commence in June / Summer 2024. Many aquatic and fish species spawn over the summer and in other areas, works within waterbodies or rivers are often restricted at this time of year (for example, April to September). It is not clear what measures will be in place to manage enabling works that may cause noise, vibration, disturbance or disruption within the water column of the lake or its immediate surrounding area to aquatic species during the summer months or spawning seasons.

- **Potential Regulation 25 request: Confirm the activities, associated with the enabling works, intended to take place during the summer / spawning season 2024 and the likely impacts of these activities on aquatic species. Confirm how these impacts will be mitigated and managed.**

Operation

2.2.11 The proposed timings and duration of activities on Broadwater Lake for HOAC are set out in ES Volume 1, Chapter 5, paragraph 5.6.6 – 5.6.8 and Table 5.1. It is not explicitly stated that HOAC will not be operational at the weekend. This should be clarified. It would be useful to include the BSC operational timings set out in ES Volume I, Chapter 2, Table 2.1, alongside the proposed HOAC timings to demonstrate that there will be almost continuous activity on and around Broadwater Lake throughout the year, and throughout the weekdays and weekends. This will assist in the understanding of the impacts on bird species associated with the Mid-Colne Valley SSSI.

- **Clarification required: Confirm whether HOAC will be operational at the weekend. Present timings of existing BSC operations alongside Table 5.1 to demonstrate level of activity on Broadwater Lake throughout the week/year.**

2.3 Consideration of alternatives

2.3.1 The alternatives to the proposed development which have been considered are clearly described in ES Volume 1, Chapter 4. Table 4.1 provides a comprehensive long list of the alternative sites that have been considered and the proceeding sections include a description of the environmental factors taken

into account when considering the short-listed sites. Table 4.2 and Table 4.3 set out alternative layouts for development within the site.

Summary of potential Regulation 25 information requests

1. Further information is needed on the proposed dredge depths to provide confidence that the 47,500 cubic metres fill volume can be achieved. Confirm what measures will be put in place should the fill volume not be matched by the proposed dredge volume. Confirm whether there would be any intention to import additional material for land reclamation or what measures would be in place should dredged material need to be removed from the site.
2. Confirm what measures will be in place to maintain the new dredge depths within Broadwater Lake and the likely impacts of any future dredging requirements.
3. No details are provided on what the man-made caving system will entail, along with other proposed activities in the outdoor area such as the high- and low-level ropes and zip wire. Confirm how the man-made caving system, along with other elements in the outdoor activity area, will be constructed and whether any excavation or foundation works will be required.
4. Provide further information to demonstrate that the proposed development has sought to maximise BNG towards the minimum 10% requirement and explore further opportunities to improve and enhance biodiversity at the site.
5. Confirm when construction of HS2 is expected to be completed and whether there is likely to be any overlap with the proposed development construction works during 2024, particularly along Moorhall Road. Assess the likely cumulative construction impacts of the proposed development alongside HS2.
6. Confirm the activities, associated with the enabling works, intended to take place during the summer / spawning season 2024 and the likely impacts of these activities on aquatic species. Confirm how these impacts will be mitigated and managed.

Summary of clarifications required

7. Confirm the sensitivity and location of the 'semi-formal' residential properties mentioned in ES Volume 1, Chapter 2, paragraph 2.2.4 and that these properties have been fully assessed.
8. The proposed development appears to include a number of additional buildings categorised under 'other buildings' which increases the overall footprint of the proposed development. Noting the site is within green belt, confirm whether it is possible to consolidate any of the buildings to reduce the overall development footprint.
9. Confirm whether the Broadwater Rowing Club will continue to operate at the site as part of the new HOAC facilities and if so, confirm where these facilities will be located.
10. Confirm which measures have been considered embedded mitigation and taken into account as part of the pre-mitigation technical assessments, and which measures are considered additional mitigation. The list should be more detailed and consistent with that described in ES Volume 1, Chapter 11, Summary.
11. Confirm whether HOAC will be operational at the weekend. Present timings of existing BSC operations alongside Table 5.1 to demonstrate level of activity on Broadwater Lake throughout the week/ year.

3. Review of ES format, presentation and scope

3.1 Scope and methodology of the EIA

- 3.1.1 The scope and EIA methodology are described within ES Volume 1, Chapter 3. The technical topics scoped into the ES for detailed assessment aligns with those established in the adopted scoping opinion (Ref: 2382/APP/2023/525) 4.
- 3.1.2 It would have been useful for Chapter 3 to have included a commentary on the technical topics that have been scoped out of detailed assessment in the ES, to confirm whether any changes arising from the more detailed design submitted for planning, would not alter the conclusions of the adopted scoping opinion i.e. there would be no likely significant effects arising from changes to the detailed design. Clarification should be provided that this is the case.
- **Clarification required: Review the detailed design of the proposed development that was submitted for planning against the description of development set out within the adopted scoping opinion and provide a commentary on the technical topics scoped out and whether there would likely be any change to the assessment of likely significant effects.**
- 3.1.3 The proposed development is expected to be completed in 2025 and so the year of assessment or future baseline has been assumed to be 2025. It is not clear from this Chapter whether this assumes that HS2 is in operation but the verified visuals presented as part of the landscape and visual impact assessment include the completed viaduct in the ‘without proposed development’ scenario.
- 3.1.4 ES Volume 1, Chapter 3, Paragraph 3.7.30 clearly states that residual effects reported as major or moderate are considered significant.
- 3.1.5 ES Volume 1, Chapter 3, Table 3.2 sets out the general significance criteria applied to the ES assessments, unless otherwise stated in the technical chapters. It is queried whether a negligible impact on a high sensitivity receptor should be ‘minor adverse’ as opposed to ‘negligible’. Equally, a high magnitude of impact on a receptor of negligible sensitivity is usually considered ‘minor adverse’ as opposed to ‘negligible’. However, it is agreed that this would not alter the overall significance of the effects should the criteria be amended.

3.2 Consultation

- 3.2.1 ES Volume 1, Chapter 3, Section 3.5 presents a summary of the consultation undertaken with respect to the EIA, with more detail of key issues raised and discussed presented in the specific technical chapters. Specific technical comments raised during consultation are considered in the review of the technical chapters later in this report.

3.3 Cumulative effects

- 3.3.1 The approach to cumulative assessment set out in ES Volume 1, Chapter 3, Section 3.8 sets out the ES has considered both intra-project effects and cumulative effects of the proposed development with other planned developments (inter-project effects). Section 3.8 also states that intra-project effects will be presented within each of the technical chapters; however, intra-project effects do not appear to have been assessed within any of the technical chapters (Chapters 7 – 10). An assessment of intra-project cumulative effects should be provided.
- **Potential Regulation 25 request: Provide an assessment of the likely intra-project cumulative effects.**
- 3.3.2 Section 3.8 indicates that intra-project effects will be presented within each topic chapter. It should be noted that this has not been completed rather each chapter only includes consideration of inter-project effects. This is included as potential regulation 25 request in the summary table below.

⁴ Arup 2022, Environmental Statement Scoping Opinion - Hillingdon Water Sports Facility and Activity Centre -Broadwater Lake

3.4 Non-technical summary (NTS)

- 3.4.1 The NTS is provided as a standalone document and in general reflects and aligns with the conclusions of the main ES Volume 1. The NTS presents all the information required under the EIA Regulations, including statements of significance, and is supported by clear illustrations and maps.
 - 3.4.2 The NTS provides a summarised version of proposed floorspace and use, combining six buildings/uses into one 'other buildings' row. Although not considered a requirement for clarification, it would have been clearer for the reader to understand the constituent parts of this use within the NTS.
 - 3.4.3 The NTS does not specify the effect interactions. Any revision to the NTS to account for comments made on the detailed technical assessments should ensure that potential for significant cumulative effects is included.
- **Potential Regulation 25 request: Update the NTS to take account of any changes to the significance of effects as a result of comments on the detailed technical assessments and to include potentially significant cumulative effects.**

Summary of potential Regulation 25 information requests

- 12. Provide an assessment of the likely intra-project cumulative effects.
- 13. Update the NTS to take account of any changes to the significance of effects as a result of comments on the detailed technical assessments and to include potentially significant cumulative effects.

Summary of clarifications required

- 14. Review the detailed design of the proposed development that was submitted for planning against the description of development set out within the adopted scoping opinion and provide a commentary on the technical topics scoped out and whether there would likely be any change to the assessment of likely significant effects.
- 15. Confirm how HS2 has been considered within the future baseline and whether this is consistent with what was set out in paragraph 2.6.3 of the adopted scoping opinion.

4. Chapter 7: Biodiversity

- 4.1.1 The review of the biodiversity assessment has considered ES Volume 1 Chapter 7 and its associated technical appendices within ES Volume II (Appendices 7.1 to 7.13).

4.2 Scope of technical chapter

- 4.2.1 The scope of the chapter is broadly appropriate and aligns with the adopted scoping opinion. The Applicant has identified the principal ecological features and receptors that are likely to be affected by the proposed development and the types and nature of activities likely to cause impacts to those receptors.
- 4.2.2 The ES suggests that the assessment scope has been agreed with key stakeholders such as the Environment Agency and Natural England, which adds weight and consensus; however, only a set of responses from the Applicant to comments made by those stakeholders have been provided (with no clear evidence that the stakeholders agree with those responses). There are no immediate concerns over any species and/or designated sites scoped out of the assessment (non-significant effects); justifications for these omissions appear to be appropriate.

4.3 Baseline conditions

- 4.3.1 Broadly, the baseline conditions have been adequately described.
- 4.3.2 The Figures in Appendix 7.2 show the habitats that have been mapped at the site. It is not entirely clear whether any of the area mapped as *artificial unvegetated unsealed surface* in the south of the site, or any other area of the site, may qualify as brownfield land that could be of higher ecological value in terms of plant and/or invertebrate communities present, and ought to be retained.
- **Potential Regulation 25 request: Confirm whether any of the habitats at the site could qualify as brownfield land and be of higher ecological value and would require compensation should they be lost.**
- 4.3.3 It might have been expected that for a site of this significance (SSSI, national level), that a baseline survey dataset across multiple years would have been necessary to fully assess the impacts to, in particular, wintering bird communities. This could be an issue when the baseline level of bird activity is subsequently suggested to be lower than reported in association with the site's designation, as is the case here. The ES states that surveys have taken place between November 2022 and February 2023 (paragraph 7.3.33), or October 2022 to March 2023 (paragraph 7.3.35), so it is unclear which but, either way, this is restricted to a single survey season. Justification should be provided for the provision of just one wintering bird survey season of data or it is recommended that additional surveys are undertaken during the current season to supplement the understanding of current populations at the site.
- **Potential Regulation 25 request: Provide justification for the single season of wintering bird survey data given the sensitivities at the site. It is recommended that wintering bird survey data for the current survey season is collected to supplement the submitted survey results and provide additional information on the current populations.**

4.4 Determination of magnitude, sensitivity and significance

- 4.4.1 There is no clear recognition of the potential increase in baseline value of the habitats present over time. The fact that the current habitats have evolved naturally over time and will continue to further mature is not referenced and should align with Chartered Institute for Ecology and Environmental Management (CIEEM) guidance⁵ on future baselining. The suggestion that habitat condition will continue to decline if unmanaged is not well evidenced. Furthermore, there appears to be no consideration of how the effects of climate change will impact the existing baseline conditions, for example, warmer conditions potentially affecting oxygen levels in Broadwater Lake

⁵ Chartered Institute for Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in the UK and Ireland, September 2018, Version 1.1, updated September 2019 [Guidelines for Ecological Impact Assessment \(EcIA\) | CIEEM](#)

- **Potential Regulation 25 request: In line with CIEEM guidance, provide further information on the ecological value of the baseline habitats and the site, taking into account changes in the future condition as a result of climate change. Any updates should be considered within revised calculations for biodiversity net gain. Review and update the impact assessment, as necessary.**

4.4.2 The assessment is not clear on land-based activities, such as camping, associated with future HOAC operations. There is a lot of focus on disturbance of waterbirds from on-lake activities but very little mention of additional on-land activities that would presumably result from operation of HOAC in addition to BSC across the site, including the general presence of a far great number of people, which would no doubt have some level of additional disturbance to, for example, breeding bird communities.

- **Potential Regulation 25 request: Provide further information on the intended land-based outdoor activities including the extent of where these will be located across the site and which habitat areas will be accessible for activity users. Provide more detail on how these land-based activities will be managed to avoid disturbance to habitats and species present at the site.**

4.4.3 Furthermore, the focus of the assessment on impacts to waterbirds seems to be to the detriment of other aquatic species that may be equally vulnerable to and adversely impacted by disturbance. In the case of otters, their ability to move away from disturbance and use other resources in the surrounding landscape seems to be heavily relied upon, without acknowledging that in itself is an adverse impact.

- **Potential Regulation 25 request: Provide further assessment of the likely significant impacts on other aquatic species, such as otters, to ensure a comprehensive approach to ecological mitigation at the site.**

4.5 Mitigation and monitoring

4.5.1 The ES states that 50% of the Mid Colne Valley SSSI within which the site is located is in favourable condition and 50% in unfavourable condition, as assessed by Natural England. It does not make clear whether the mitigation proposed addresses or links to any of the factors that are causing the unfavourable condition. This link should be made clear.

- **Potential Regulation 25 request: Confirm how the proposed mitigation measures link to, address, or ideally enhance the areas of the Mid Colne Valley SSSI that are currently assessed by Natural England as being in unfavourable condition.**

4.5.2 A great deal of significance has been placed on the potential enhancements to be made to the existing lake habitat present, through activities including reprofiling and dredging, to create more heterogeneity of habitat condition. More is needed on the quantity/scale of those operations (for example, how deep is the current lakebed and how much deeper will it be post-dredging; how much variability in depth will be created) in order to understand how significant or otherwise those benefits may be. The same would apply to the extent to which woodland management will enhance the current condition of the existing woodland to be retained.

- **Potential Regulation 25 request: Provide more information on the proposed extent of the reprofiling and dredging works to inform the assessment of how the proposed design will impact ecology.**

4.5.3 It is not entirely clear how HS2's mitigation proposals align with those of the proposed development. There is reference to "*requirements for its [HS2's] own mitigation within an area of water onsite adjacent to the peninsula*" in ES Volume 1, Chapter 7, paragraph 7.3.3, and to an HS2 mitigation island in Section 2.8, but because the two developments are being progressed independently of each other (acknowledging that there have been discussions between the two proponents), there is no sense of a joined-up mitigation solution.

- **Clarification required: Confirm how the proposed development mitigation aligns with the HS2 mitigation requirements in terms of delivery timings and an integrated ecological strategy to maximise benefits.**

4.5.4 There is a fence line proposed that, if implemented, may serve as a barrier to species dispersal across different areas of the site, for example otter moving between the canal and the adjacent lake. Further discussion of this issue is recommended.

4.6 Cumulative effects

- 4.6.1 There is an insufficient evidence base for the conclusions drawn on the cumulative effects of disturbance, particularly operational disturbance, to result from the combination of the proposed development and the HS2 project. It appears that the HS2 project will be disturbing birds away from the south-west corner of Broadwater Lake and the proposed development will be displacing birds towards this area. The suggestion is that the provision of a number of islands to act as visual screens for both projects will fully mitigate this combined pressure. It is not at all clear how this conclusion has been reached or whether or not it is justified.
- 4.6.2 Furthermore, there has been no clear assessment of the likely significant combined effects of the proposed development upon ecological receptors for example, noise, visual and light intrusion, effects on water quality impacting birds.
- **Potential Regulation 25 request: Provide a more detailed cumulative assessment of the likely in-combination effects arising from the proposed development and HS2, as well as the in-combination effects of the proposed development on ecological receptors. Related to this, provide more evidence to demonstrate that the proposed landscaping will be an effective measure to mitigate the impacts of disturbance.**
- 4.6.3 There is also no mention of the loss of open water as a result of constructing the 'HS2 mitigation island' in combination with the loss of open water resulting from the proposed development. It is not clear whether the combined loss of open water from the two projects exceeds the 5% trigger stated in ES Volume 1, Chapter 7, paragraph 7.6.14. The basis for this trigger and why it is appropriate, should be clearly referenced. There is also no explanation of what would result in the scenario that the trigger is exceeded. Should clarification confirm that the trigger is exceeded, further information may be required to address the trigger exceedance and reduce the overall loss of open water.
- **Clarification required: Confirm whether the combined loss of open water from the HS2 and proposed development will exceed the 5% trigger and provide a clear reference for this trigger and why it is appropriate.**

4.7 Commentary on the ES conclusions

- 4.7.1 It is difficult to see how some relatively minor habitat creation and enhancements (such as provision of new floating islands and shallow edge habitat) will fully compensate for losses of key habitat (open water and woodland) and a significant increase in operational disturbance levels to the key species interests of this site (breeding and wintering bird communities). It may not be possible to fully compensate for these effects alongside the proposed change of use and it is likely that the potential impacts to the site and the SSSI continue to outweigh these enhancements. As the SSSI is a resource of national significance, it is not clear how the current proposal could be seen to meet the legislative and policy requirements associated with the protection of biodiversity.
- 4.7.2 The current level of detail in the assessment does not provide sufficient confidence that the impacts on ecological receptors can be robustly mitigated and further information is requested.

4.8 Commentary on the NTS

- 4.8.1 A generally well written and structured section on Biodiversity, though a number of minor typographical errors are noted. The approach to the assessment (how were the effects identified) and the baseline are adequately described, fairly comprehensively in terms of the baseline.
- 4.8.2 In terms of the assessment of effects, there is little or no description of the scale/magnitude of change from the current site use and operations (and therefore of the levels of long-term disturbance associated with the proposals), which needs to be much more explicit, even in an NTS. For example, there is reference to water-based activities being limited to the north and centre of the lake, but a new launch area is proposed at the south of the lake, which suggests that disturbance effects will be felt across the whole of the lake area. This is not acknowledged. The assessment also does not clearly state whether or not there will be an increase in recreational pressure and so the reader has to make their own assessment.
- 4.8.3 The cumulative effects of the proposals with the adjacent HS2 development are not properly assessed, even within the context of an NTS. Stating that the impact could be greater if HS2 disturbs this area

as well is not considered to be sufficient. The subsequent statement that visually screening a section of the lake, during construction and operation, to prevent these combined effects will effectively negate them, has not been justified and cannot be relied upon. The NTS should be updated to reflect the conclusions of any additional information submitted. This is included as a potential Regulation 25 request earlier in this report.

Summary of potential Regulation 25 information requests

16. Confirm whether any of the habitats at the site could qualify as brownfield land and be of higher ecological value and would require compensation should they be lost.
17. Provide justification for the single season of wintering bird survey data given the sensitivities at the site. It is recommended that wintering bird survey data for the current survey season is collected to supplement the submitted survey results and provide additional information on the current populations.
18. In line with CIEEM guidance, provide further information on the ecological value of the baseline habitats and the site. This should be taken into account within any calculations for biodiversity net gain. Review and update the impact assessment, as necessary.
19. Provide further information on the intended land-based outdoor activities including the extent of where these will be located across the site and which habitat areas will be accessible for activity users. Provide more detail on how these land-based activities will be managed to avoid disturbance to habitats and species present at the site.
20. Provide further assessment of the likely significant impacts on other aquatic species, such as otters, to ensure a comprehensive approach to ecological mitigation at the site.
21. Confirm how the proposed mitigation measures link to, address, or ideally enhance the areas of the Mid Colne Valley SSSI that are currently assessed by Natural England as being in unfavourable condition.
22. Provide more information on the proposed extent of the reprofiling and dredging works to inform the assessment of how the proposed design will impact ecology.
23. Provide a more detailed cumulative assessment of the likely in-combination effects arising from the proposed development and HS2, as well as the in-combination effects of the proposed development on ecological receptors. Related to this, provide more evidence to demonstrate that the proposed landscaping will be an effective measure to mitigate the impacts of disturbance.

Summary of clarifications required

24. Confirm how the proposed development mitigation aligns with the HS2 mitigation requirements in terms of delivery timings and an integrated ecological strategy to maximise benefits.
25. Confirm whether the combined loss of open water from the HS2 and proposed development will exceed the 5% trigger and provide a clear reference for this trigger and why it is appropriate.

5. Chapter 8: Water resources and flood risk

- 5.1.1 The review of the water resources and flood risk assessment has considered ES Volume 1 Chapter 8 and its associated technical appendices within ES Volume II (Appendices 8.1 to 8.7).

5.2 Scope of technical chapter

- 5.2.1 The Chapter states that its scope has been agreed with the LPA and Environment Agency (EA). The scope of this Chapter is typical; as expected it defines the assessment methodology, establishes the baseline conditions, identifies receptors and their sensitivity, assesses the magnitude of impacts and the significance of the effects, discusses monitoring and embedded and additional mitigation measures, and summarises the residual effects. The scope covers both the construction phase and the completed development and aligns with the adopted scoping opinion.
- 5.2.2 An assessment of the lake ecology and water-dependent habitats falls outside the scope of this Chapter; these receptors are assessed in Chapter 7: Biodiversity.

5.3 Baseline conditions

- 5.3.1 The description of the baseline conditions relating to groundwater, surface water and flood risk is thorough and is evidenced with relevant open-source data; however, the Surface and Foul Water Drainage section (paras 8.4.105 to 8.4.107) appears to summarise the proposed drainage rather than outlining the baseline (i.e. existing) condition for drainage. The baseline conditions section should include a description of how surface water and foul water currently discharges from the site, including overland flow paths for surface water, and identify any drainage infrastructure including surface/ foul/ combined sewer networks using Statutory Undertakers' asset records.
- **Potential Regulation 25 request: Provide the baseline conditions for surface water and foul water, as well as identify any existing drainage infrastructure at the site.**
- 5.3.2 Korda Lake and Harefield Moor Lake are water bodies located adjacent to the boundary of the south parcel' of the site. Despite the potential for any proposed construction activity in the "south parcel" to impact these water bodies, by virtue of their proximity, they are not identified specifically as receptors (ES Volume 1, Chapter 8, paragraph 8.4.25). Furthermore, it is unclear what construction is to be undertaken within the "south parcel", as it is located within the red line boundary but not shown on the general layout plans. It is likely that many of the mitigation measures introduced to control surface water pollution, already identified in the Outline CEMP (ES Volume II Appendix 6.1), would mitigate potential impacts to Korda Lake and Harefield Moor Lake.
- **Clarification required: Clarify why Korda Lake and Harefield Moor Lake are not specifically identified as receptors in ES Volume 1, Chapter 8, paragraph 8.4.25.**

5.4 Determination of magnitude, sensitivity and significance

- 5.4.1 This element of the Chapter is based on professional judgement, as is reasonable. The assessment of the sensitivity of receptors identified is considered appropriate, as is the assessment of the magnitude of impacts identified. Therefore, it is considered that the significance of the effects, as assessed, is reasonable.

5.5 Mitigation and monitoring

- 5.5.1 A number of typical mitigation measures are proposed in the Outline CEMP with respect to water pollution prevention and a strategy for sampling and monitoring water quality is presented. These are considered appropriate.
- 5.5.2 The lake dredging process in the construction phase has been identified as a potential source of groundwater and surface water contamination. A cut-fill analysis has been provided as requested in the adopted scoping opinion, as has a brief discussion of possible construction methods including mitigation measures. It is noted that the details of this process are to be confirmed by the Contractor. As stated earlier in this review, further information is requested on the proposed dredging activities.

- 5.5.3 The Draft Lake Management Plan submitted in ES Volume II, Appendix 8.7 does not make reference to dredging activity. As this will alter the lake morphology and has the potential to impact water quality significantly it should be addressed specifically in this Plan. Furthermore, the Flood Risk Assessment (FRA) (ES Volume II, Appendix 8.2) states that following the lake reprofiling activities (dredging, island creation, etc.) consequent lake water level *“increases are considered to be capable of being accommodated within Broadwater Lake”* such that the proposed development would *“not be expected to have a detrimental impact flood risk elsewhere”*. Although a calculation of the rise in lake water level has been presented, the statement that this can be accommodated within Broadwater Lake, has not been quantitatively justified.
- **Potential Regulation 25 request: Provide further quantitative information to demonstrate that the proposed dredging activities, land reclamation and small island creation, will not result in an increase in flood risk either within the site or elsewhere.**

5.6 Cumulative effects

- 5.6.1 It is stated that HS2 is the only cumulative scheme to consider with respect to this topic and that the HS2 ES does not identify any residual impacts on the water resources baseline for Broadwater Lake. There is a potentially significant residual impact on groundwater abstractions, which will require a management strategy to be agreed by HS2 with the Environment Agency and Affinity Water. The Applicant’s assessment that significant adverse cumulative effects will not arise is considered reasonable provided that consultation with Affinity Water is undertaken to confirm they are satisfied with mitigation measures proposed to protect groundwater abstraction sources.

5.7 Commentary on the ES conclusions

- 5.7.1 Apart from the instances highlighted in this report, the water resources and flood risk Chapter adequately identifies and assesses the potential effects and their significance during construction and operation, with mitigation and monitoring proposed to minimise adverse effects.
- 5.7.2 Due to the sensitivity of Broadwater Lake, further detail on dredging activities has been requested to inform the Lake Management Plan. It is expected that the Lake Management Plan would be updated once a Contractor has been appointed to undertake the works, with particular attention given to how water quality will be managed effectively during the construction stages that involve dredging, land reclamation and the creation of islands.

5.8 Commentary on the NTS

- 5.8.1 The summary for this Chapter provided in the NTS sufficiently reflects the content of the water resources and flood risk Chapter. As stated elsewhere in this report, updates to the NTS should be made to reflect any changes required following the submission of further environmental information by the Applicant.

Summary of potential Regulation 25 information requests

26. Provide the baseline conditions for surface water and foul water, as well as identify any existing drainage infrastructure at the site.
27. Provide further quantitative information to demonstrate that the proposed dredging activities, land reclamation and small island creation, will not result in an increase in flood risk either within the site or elsewhere.

Summary of clarifications required

28. Clarify why Korda Lake and Harefield Moor Lake are not specifically identified as receptors in ES Volume 1, Chapter 8, paragraph 8.4.25.

6. Chapter 9: Ground conditions and contamination

- 6.1.1 The review of the ground conditions and contamination assessment has considered ES Volume 1 Chapter 9 and its associated technical appendices within ES Volume II (Appendices 9.1 to 9.5).

6.2 Scope of technical chapter

- 6.2.1 This chapter focuses on potential contamination related effects, with regards to human health, controlled waters, ground gases, building materials and ecological receptors.
- 6.2.2 The Ground Conditions and Contamination chapter was prepared by Hydrogeo in November 2023. The scope of the chapter is generally considered appropriate for the assessment of the effects from potential land contamination and aligns with the adopted scoping opinion. Current legislation, planning policy context and guidance documents have been set out and are adequately addressed.

6.3 Baseline conditions

- 6.3.1 The baseline conditions set out the environmental conditions of the site and surrounding area for the years 2022-2023 and cover the site and surrounding area within a 250 m radius. This distance from the site boundary is considered reasonable, given the context of the proposed development and sensitivity of the study area.
- 6.3.2 Baseline conditions were established through the completion of the following:
- site walkover survey (October 2022) to establish the current land use;
 - Phase I Geoenvironmental Assessment by Geo-Integrity (September 2023) which included a review of publicly available information, from British Geological Survey (BGS) and Environment Agency (EA) websites, as well as data obtained from a Groundsure Report (December 2022);
 - preliminary ground investigation (February 2023) followed by gas and groundwater monitoring and sediment sampling from the base of Broadwater Lake (both in March 2023);
 - Phase II Geotechnical and Geo-Environmental Report (September 2023).
- 6.3.3 The Geo-Integrity Phase I and Phase II reports are included as ES Volume II Appendix 9.2 and Appendix 9.3, respectively. The ES chapter references incorrect dates for the second site walkover and ground investigation.
- 6.3.4 The ground investigation was carried out without prior consultation with the LPA or the opportunity to comment on the proposed scope of the works. The Phase I report does not acknowledge the unregistered landfill, as indicated by the EA, although the ES chapter does include reference. The Phase II report acknowledges substantial limitations, including that the ground investigation did not cover the new pontoons, camping ground, extension of land to the north of the peninsula and construction of new islands.
- 6.3.5 The ES Chapter includes responses to earlier comments made by Arup and other stakeholders. The responses to queries raised by Arup set out in ES Volume 1, Chapter 9, Table 9.1, are not considered to fully address the points raised, particularly in relation to the request for the submission of a robust ground gas risk assessment. The proposal to retain existing boreholes during the enabling and construction phases and monitor them at regular interval is welcomed; however, this does not replace the need for a robust risk assessment. The Chapter (Table 9.1) indicates that an updated geo-environmental assessment, which will include an updated human health risk assessment, has been commissioned. This should be submitted as part of the application to inform consideration of the contamination impacts of the proposed development. The updated geo-environmental assessment should also include consideration of the impacts associated with the unregistered landfill identified by the EA.
- **Potential Regulation 25 request: Provide the updated Phase II geo-environmental interpretative report, including the updated human health and ground gas risk assessments, to ensure a robust and comprehensive risk assessment has been undertaken for the site, taking into consideration the known baseline conditions and submitted proposed development design.**

6.4 Determination of magnitude, sensitivity and significance

Construction

- 6.4.1 The sensitivity of the various receptors identified, the magnitude of the impacts described, and the resulting significance of the effects on the receptors during the construction stage is generally agreed. The assessment has generally considered mitigation measures to be embedded within the design.
 - 6.4.2 The ground gas/ vapour assessment is incomplete and will need to be updated once an additional ground investigation has been undertaken. The characterisation included in the Phase II report is not deemed adequate, in particular because it does not take into consideration the unregistered landfill.
 - 6.4.3 It is agreed that should dredging need to be undertaken outside areas where lake sediment has already been sampled, then additional samples will need to be taken to further quantify the risks from further dredging, as well as the reuse potential of the material excavated.
- **Potential Regulation 25 request: The ground gas assessment should be updated to reflect the proposed development design submitted for planning. The assessment should take into account any likely significant effects associated with the unregistered landfill. This is required to adequately assess effects during the construction phase, due to potential health and safety implications.**

Operation

- 6.4.4 The assessment of sensitivity of the various receptors identified, magnitude of impacts described and resulting significance of effects on receptors during operation is generally agreed and appropriate. Again, the assessment has generally considered mitigation measures to be embedded within the design and clear commitments for this to be delivered will need to be secure by planning conditions.
 - 6.4.5 The ground gas assessment should be revised to take into account the latest development proposals. ES Volume 1, Chapter 5, clearly states there will be several smaller structures constructed, and therefore it cannot be said that all buildings will be large in size and therefore well ventilated. In addition, similarly to the construction phase assessment, the assessment for the operational phase does not take into consideration the unregistered landfill.
- **Potential Regulation 25 request: The ground gas assessment should be updated to reflect the proposed development design submitted for planning. The assessment should also take into account any likely significant effects associated with the unregistered landfill.**

6.5 Mitigation and monitoring

- 6.5.1 The chapter describes embedded mitigation measures and additional mitigation measures to be undertaken during the construction phase and included within the completed development.
- 6.5.2 The Applicant acknowledges that further ground investigation will be required following the planning application determination, to inform the enabling and construction phases of the proposed development. It is expected that standard planning conditions will be placed on the permission which will require the submission of additional ground investigation and risk assessment, a remediation strategy and verification requirements. This approach is considered appropriate. Mitigation measures will need to be outlined in the remediation strategy, verified and agreed with the LPA.
- 6.5.3 The CEMP (which will update the Outline CEMP submitted in ES Volume II, Appendix 6.1) will need to include details of general good construction practices (e.g. dust suppression, stockpile management) and a discovery strategy for managing unexpected contamination. Environmental Permits and a Piling Risk Assessment will also be required. This is to be expected for a development of this nature, size and scale.
- 6.5.4 The mitigation measures proposed for the completed development are typical for former brownfield sites, such as the installation of clean cover systems, 'no dig' layers and drainage control measures to restrict infiltration of rainwater. On-going surface water monitoring will be undertaken during operation. The frequency of monitoring will need to be discussed and agreed with the EA and LPA as part of a future planning condition requirement.
- 6.5.5 Based on the implementation of the mitigation measures, the effect significance on identified receptors has been considered negligible. This is considered appropriate.

6.6 Cumulative effects

- 6.6.1 The Applicant has not identified any committed developments which are likely to lead to cumulative ground conditions and contamination effects in combination with the proposed development. This is agreed.

6.7 Commentary on the ES conclusions

- 6.7.1 Whilst the assessment provided within the ES and its conclusions are generally agreed, the underlying data (in the form of the Phase I and Phase II reports) remains lacking. The current information is neither complete nor comprehensive. The Applicant will need to provide an updated robust human health, ground gas and controlled waters risk assessment. It is expected that the updated interpretative report (referred to by the Applicant as the ‘updated geo-environmental assessment report’) will address these concerns.
- 6.7.2 It will be essential that the LPA is consulted prior to the next phase of ground investigation and that written confirmation is sought on the scope, by the Applicant, prior to the commencement of the works as part of an appropriately worded planning condition.
- 6.7.3 Mitigation measures will be implemented predominantly via a detailed CEMP and remediation strategy, both expected to be secured via standard planning conditions. It is agreed that no significant residual effects will remain following the implementation of embedded and additional mitigation measures.

6.8 Commentary on the NTS

- 6.8.1 Many gaps remain in the Applicant’s understanding of the situation with regards to historical landfilling activities on site, therefore the statement included in the NTS that “*records indicate that areas within the peninsula have been used for historic landfilling*” is not sufficiently substantiated. The NTS should reflect any updated conclusions in the main assessment with regards to the unregistered landfill.
- 6.8.2 The majority of the mitigation measures to address the risks from ground contamination will be detailed in a remediation strategy once supplementary ground investigation has been completed. The NTS is misleading in putting emphasis on the Outline CEMP including a range of relevant mitigation measures, when discussing potential effects during construction. These may be appropriate but are incomplete. The NTS should be clearer in stating that further ground investigation is to be carried out to define the risk more accurately from ground contamination on site.

- **Potential Regulation 25 request: The NTS should be updated to reflect any changes to the assessment following the submission of the updated geo-environmental interpretative report.**

Summary of potential Regulation 25 information requests

29. Provide the updated Phase II geo-environmental interpretative report, including the updated human health and ground gas risk assessments, to ensure a robust and comprehensive risk assessment has been undertaken for the site, taking into consideration the known baseline conditions and submitted proposed development design.
30. The ground gas assessment should be updated to reflect the proposed development design submitted for planning. The assessment should also take into account any likely significant effects associated with the unregistered landfill.
31. The NTS should be updated to reflect any changes to the assessment following the submission of the updated geo-environmental interpretative report.

Summary of clarifications required

No clarifications required at this stage.

7. Chapter 10: Landscape and visual impact assessment

- 7.1.1 The review of the landscape and visual impact assessment has considered ES Volume 1 Chapter 10 and its associated technical appendices within ES Volume II (Appendices 10.1 to 10.6).
- 7.1.2 This review has been carried out with reference to Landscape Institute Technical Guidance Note 01/20: Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs). The results of the technical review are available in Appendix A of this report and summarised in the following sections.

7.2 Scope of technical chapter

- 7.2.1 The assessment scope was agreed with the LPA as part of the EIA scoping process and the Chapter provides evidence of how the Applicant has responded to this and other consultees comments. The assessment includes appropriate references to other chapters but also includes occasional references to the Green Belt designation. There appears to be no separate consideration of Green Belt impacts in the assessment.
- **Potential Regulation 25 request: Provide an assessment of the impact on Green Belt and the associated loss of openness.**

7.3 Baseline conditions

- 7.3.1 The landscape baseline discusses Landscape Character Areas (LCA) defined using the South Buckinghamshire and the Colne Valley Regional Park (CVRP) Landscape Character Assessments. Only the LCAs defined within the CVRP Landscape Character Assessment were taken forward for further assessment. The landscape baseline also discusses the physical components of the site, but it is unclear how this relates to the other landscape receptors identified for assessment.
- 7.3.2 Justification is given for the scoping of viewpoints but there is no rationale given for the list of visual receptors that was taken forward for further assessment.
- **Clarification required: Clarify how the landscape and visual receptors taken for further assessment have been determined.**
- **Potential Regulation 25 request: Provide the value and susceptibility of each visual receptor and viewpoint to justify their sensitivity.**
- 7.3.3 The supporting graphics in the appendices, particularly the Landscape Strategy, are effective in communicating the characteristics of the landscape.
- 7.3.4 The supporting LCA Figure in ES Volume II, Appendix 10.1 does not contain all the LCAs listed that are identified as landscape receptors and does not have a corresponding key.
- **Clarification required: Provide a key on the LCA figures contained at ES Volume II, Appendix 10.1.**
- 7.3.5 The text refers to only two viewpoint locations warranting Accurate Visual Representations (AVR), but three have been included at ES Volume II, Appendix 10.5.

7.4 Determination of magnitude, sensitivity and significance

- 7.4.1 The assessment methodology was agreed through consultation with the LPA and has been undertaken largely in accordance with good practice guidance, namely the Guidelines for Landscape and Visual Impact Assessment, third edition (GLVIA3). However, it includes reference to Landscape Institute (LI) Technical Guidance Note (TGN) 01/11 for the production of the photography and visualisations, which has been superseded by LI TGN 06/19 Visual Representation of development proposals.
- **Clarification required: Clarify how the visualisations comply with the LI TGN 06/19 Visual Representation of the proposed development.**
- 7.4.2 The assessment provides separate consideration of landscape and visual effects, and generally contains defined criteria and thresholds for each, but there are some inconsistencies between landscape and visual. For example, there are no value or susceptibility criteria provided for visual

receptors, and there are no thresholds provided for the duration, reversibility and geographic extent of landscape impacts. This has raised a number of areas for clarification.

- **Clarification required: Provide the baseline scenario for the visual receptors and their associated value on which the assessment has been based.**
- **Clarification required: Clarify the value of each landscape receptors with reference to the criteria given in the methodology.**
- **Clarification required: Clarify the specific effects of the proposed development for each identified landscape receptors to justify the magnitude with reference to scale, geographic extent, duration, and reversibility.**

7.5 Mitigation and monitoring

- 7.5.1 The assessment provides suitable evidence of the iterative assessment-design process, and the proposed mitigation seems adequate from a landscape and visual perspective.

7.6 Cumulative effects

- 7.6.1 The cumulative assessment does not consider the cumulative landscape effects.
- **Potential Regulation 25 request: Provide an assessment of the cumulative landscape impacts and confirm the combined effect of the cumulative schemes in the cumulative visual assessment.**

7.7 Commentary on the conclusion of the ES

- 7.7.1 The assessment of landscape effects begins with an overview of landscape effects of the component parts of the proposed development, but it is unclear which receptors these relate to. There is limited discussion of how the proposed development as a whole would change the baseline of the different receptors. There are limited and inconsistent references to the different factors that contribute to magnitude of change, and which are mentioned in the methodology.
- 7.7.2 The visual assessment considers individual viewpoints as well as the visual amenity of different groups of people. However, there is no baseline description of the views these groups currently experience or their value, as has been provided for some of the individual viewpoints. Some receptors with the same sensitivity and levels of magnitude have been assessed as having different levels of significance with no explanation to justify these inconsistencies.
- **Clarification required: Provide greater rationale for the levels of significance to justify how some receptors with the same sensitivity and levels of magnitude have been assessed as having different levels of significance.**
- 7.7.3 Throughout the assessment of effects, there is little consideration given to if or how the magnitude of change would alter over time for each landscape and visual receptor.
- **Clarification required: Clarify how the landscape and visual effects would change over time with reference to the identified assessment scenarios.**
- 7.7.4 The term 'significant' is also used interchangeably in its EIA context and as a general adjective which is not always immediately clear.

7.8 Commentary on the NTS

- 7.8.1 It is not clear from the NTS what landscape receptors have been assessed.
- 7.8.2 The NTS statements are contradictory initially stating that 'the Proposed Development would not result in significant adverse effects on the identified landscape and visual receptors', but later noting 'significant beneficial landscape effects are predicted to woodland and vegetation features within the Site'. The likely significant effects of the proposed development should be clearly reported.
- **Potential Regulation 25 request: The NTS should be updated to reflect any changes to the assessment following the submission of the updated information.**

Summary of potential Regulation 25 information requests

32. Provide an assessment of the impact on Green Belt and the associated loss of openness.
33. Provide the value and susceptibility of each visual receptor and viewpoint to justify their sensitivity.
34. Provide an assessment of the cumulative landscape impacts and confirm the combined effect of the cumulative schemes in the cumulative visual assessment.
35. The NTS should be updated to reflect any changes to the assessment following the submission of the updated information.

Summary of clarifications required

36. Clarify how the landscape and visual receptors taken for further assessment have been determined.
37. Provide a key on the LCA figures contained at ES Volume II, Appendix 10.
38. Clarify how the visualisations comply with the LI TGN 06/19 Visual Representation of the proposed development.
39. Provide the baseline scenario for the visual receptors and their associated value on which the assessment has been based.
40. Clarify the value of each landscape receptors with reference to the criteria given in the methodology.
41. Clarify the specific effects of the proposed development for each identified landscape receptors to justify the magnitude with reference to scale, geographic extent, duration, and reversibility.
42. Provide greater rationale for the levels of significance to justify how some receptors with the same sensitivity and levels of magnitude have been assessed as having different levels of significance.
43. Clarify how the landscape and visual effects would change over time with reference to the identified assessment scenarios.

Appendix A

LVIA Technical Review Form

A.1 Step 1: Checking the methodology used to undertake the assessment, the criteria selected (including balance between), and the process followed

Does the scope of the assessment meet the requirements set out in the Scoping Opinion and/ or as defined in the LVIA or LVA? If substantively different, are the reasons clearly set out and explained?	Compliance:
<p>Comment:</p> <p>Yes, the assessment scope meets the requirements of the adopted scoping opinion. This is set out at Table 10.2 of the LVIA, which summarises the relevant points of the adopted scoping opinion and how the assessment has responded to them.</p>	Y

What consultations have been carried out and have responses been acted upon?	Compliance:
<p>Comment:</p> <p>Consultations have been undertaken with the LPA, Natural England, Broadwater Sailing Club, Hillingdon Outdoor Activity Centre, Greater London Authority, and Hertfordshire and the Middlesex Wildlife Trust. Table 10.1 of the LVIA describes how the consultees' comments have been addressed.</p>	Y

Has the scope and methodology of the assessment been formally agreed with the determining authority? If not, why not?	Compliance:
<p>Comment:</p> <p>Yes, the scope of the assessment has been agreed with the LPA as part of the adopted scoping opinion.</p>	Y

As part of the methodology, has the terminology been clearly defined, have the criteria to form judgements including thresholds been clearly defined and have any deviations from good practice guidance (such as GLVIA3) been clearly explained	Compliance:
<p>Comment:</p> <p>Yes, the terminology has been clearly defined and the criteria contains clearly defined thresholds.</p>	Y

Does the assessment demonstrate a clear understanding and provide a separate consideration of landscape and visual effects	Compliance:
<p>Comment:</p> <p>Yes, the assessment demonstrates a clear understanding and provides a separate consideration of landscape and visual effects.</p>	Y

Does the assessment demonstrate comprehensive identification of receptors and of all potential effects	Compliance:
Comment: Yes, the assessment demonstrates a comprehensive identification of receptors.	Y

Does the assessment provide clarity and transparency of its reasoning, the basis for its findings and conclusions?	Compliance:
Comment: Yes, the assessment generally provides the basis for its findings and conclusions.	Y

A.2 Step 2: Checking the baseline, content and findings of the assessment

Is the scope and content (detail, geographic extent) of the landscape and visual baseline studies appropriate and sufficient to form the basis for the assessment of effects, (supported by appropriate graphic such as ZTV's etc)?	Compliance:
Comment: The visual assessment considers individual viewpoints as well as the visual amenity of different groups of people. However, there is no baseline description of the views these groups currently experience, as has been provided for some of the individual viewpoints.	N

Is the methodology applied in the assessment clear, including: consistent process; use of terms; clarity in reaching judgements; and transparency of decision-making?	Compliance:
Comment: The assessment of landscape effects is hard to follow. The subsections on construction and operation begin with an overview of landscape effects of component parts of the Proposed Development but it is unclear which receptors these relate to. There is also limited discussion of how the proposed development as a whole would change the baseline of the different receptors. The assessment tables set out the judgements for each receptor but provide limited additional information. The assessment also includes two judgements in the 'magnitude and description of impact' column for some receptors, and only one for others, but is not clear why.	N

Is the value of landscape and visual resources clearly set out and defensible (including but not necessarily limited to considerations of: local, regional and national designations and LI TGN 02/21 / GLVIA3 Box. 5.1 criteria)?	Compliance:
Comment: Judgements on landscape value appear to wrongly consider Green Belt and SSSIs which are planning and ecological designations respectively. The assessment of landscape value refers to Box 5.1 from GLVIA3 but there is no reference to TGN 02/21. There is also no consideration of the value of visual receptors.	N

Are the criteria to inform levels of sensitivity (both landscape and visual) and magnitude of change clear (avoiding scales which distort reported results)?	Compliance:
<p>Comment:</p> <p>Criteria are provided but there are some inconsistencies between landscape and visual. For example, there are no value or susceptibility criteria provided for visual receptors, and there are no thresholds provided for the duration, reversibility and geographic extent of landscape impacts.</p>	N

Is the crossover with other topics, such as heritage or ecology adequately addressed?	Compliance:
<p>Comment:</p> <p>Yes, crossover with other topics adequately addressed.</p>	Y

Is there evidence or not of an iterative assessment-design process?	Compliance:
<p>Comment:</p> <p>Yes, there is evidence of an iterative design process</p>	Y

Are the viewpoints used appropriate in number, distribution and location?	Compliance:
<p>Comment:</p> <p>Yes, the viewpoints are appropriate in number, distribution and location.</p>	Y

Is the proposed mitigation, both measures incorporated into the scheme design and those identified to mitigate further the effects of the scheme, and mechanisms for delivering the mitigation adequate?	Compliance:
<p>Comment:</p> <p>Yes, the proposed mitigation measures are adequate.</p>	Y

Is the application of the criteria and thresholds set out in the methodology for assessing the sensitivity of receptors, the magnitude of changes arising from the project, the degree/ nature of effects, and the approach to judging the significance of the effects identified, in the case of EIA projects consistent and objective?	Compliance:
<p>Comment:</p> <p>In the landscape assessment, there are limited and inconsistent references to the different factors that contribute to magnitude of change, and which are mentioned in the methodology.</p> <p>In the visual assessment, some receptors with the same sensitivity and levels of magnitude have been assessed as having different levels of significance with no explanation to justify the inconsistencies e.g. users of the Hillingdon Trail, users of the Grand Union Canal towpath and residents.</p>	N

Is the volume, relevance and completeness of the information provided about the development or project including where relevant, detail about various development stages such as construction, operation, decommissioning, restoration, etc sufficient?	Compliance:
<p>Comment:</p> <p>Yes, the information provided about the proposed development is sufficient.</p>	Y

Does the document clearly identify potential landscape and visual effects which need to be considered in the assessment?	Compliance:
<p>Comment:</p> <p>Yes, the document clearly identifies the potential landscape and visual effects which need to be considered in the assessment.</p>	Y

Have levels of effect been clearly defined and in the case of LVIA, have thresholds for significance been clearly defined and cumulative landscape and visual effects been addressed?	Compliance:
<p>Comment:</p> <p>The term 'significant' is used interchangeably in its EIA context and as a general adjective which is not always immediately clear.</p> <p>The cumulative assessment does not consider the cumulative landscape impacts.</p>	N

A.3 Step 3: Checking the presentation of the assessment findings

Is there clear evidence of transparency, objectivity and clarity of thinking, appropriate and proportionate communication of all aspects of the assessment of landscape and visual effects, including cumulative effects? In particular, have the findings of the assessment been clearly set out and are they readily understood?	Compliance:
<p>Comment:</p> <p>The landscape baseline discusses LCAs from the South Bucks and the CVRP Landscape Character Assessments but only the CVRP LCA was taken forward for further assessment. The landscape baseline also discusses the physical components of the site but it is unclear how this relates to the other landscape receptors identified for assessment.</p> <p>Justification is given for the scoping of viewpoints but there is no rationale given for the list of visual receptors that was taken forward for further assessment.</p> <p>There is little consideration given to if or how the magnitude of change would change over time for each landscape and visual receptor.</p>	N

Is the communication of the assessment clear and comprehensive, in text, tables and illustrations etc?	Compliance:
<p>Comment:</p>	N

<p>The assessment is hard to follow at times and would benefit from a consistent and concise subheading structure. For example, Section 10.4 on baseline conditions contains the follow level 2 headings:</p> <ul style="list-style-type: none"> - Landscape - Visual Baseline - Future Baseline - Summary of Receptors and Sensitivity - Visual Receptors 	
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Are graphics and/or visualisations effective in communicating the characteristics of the receiving landscape and visual effects of the proposals at agreed representative viewpoints?	Compliance:
<p>Comment:</p> <p>Yes, the graphics are effective at communicating the proposals.</p>	Y

Are graphics and/or visualisations fit for purpose and compliant with other relevant guidance and all standards? E.g. Data sources and license text is correct and clearly legible. North arrow, legend, project details including revision matrix is correct.	Compliance:
<p>Comment:</p> <p>The supporting LCA figure in App 10.1 does not contain all the LCAs that are identified as landscape receptors and does not have a corresponding key.</p> <p>The text refers to only two viewpoint locations warranting AVRs but three have been included at Appendix 10.5.</p>	Y

Is there a clear and concise summation of the effects of the proposals?	Compliance:
<p>Comment:</p> <p>The landscape and visual effects are summarised in Table 10.20 but it is not clear if or how the magnitude of change would change over time for each landscape and visual receptor.</p>	N

A.4 Step 4: Drawing conclusions

Describe how the review was undertaken:
<p>This technical review has been undertaken by a Chartered Member of the Landscape Institute and Recognised Practitioner in Urban Design at Arup in accordance with LI TGN 01/20. The LVIA chapter was read alongside the supporting figures, and comments were noted in response to the questions set out in TGN 01/20.</p>

Summarise the findings of the review of the assessment methodology:
<p>The assessment methodology was agreed through consultation with the LPA and has been undertaken largely in accordance with good practice guidance, namely GLVIA3. However, it includes reference to the now superseded LI TGN 01/11 for the production of the photography and visualisations. The assessment provides separate consideration of landscape and visual effects, and generally contains defined criteria and thresholds for each, but there are some inconsistencies between landscape and visual. For example, there</p>

are no value or susceptibility criteria provided for visual receptors, and there are no thresholds provided for the duration, reversibility and geographic extent of landscape impacts.

Summarise the findings of the review of the scope of the assessment:

The assessment scope has been formally agreed with the LPA as part of adopted scoping opinion and the chapter provides evidence of how it has responded to this and other consultees comments. The assessment includes appropriate references to other chapters but also includes occasional references to the Green Belt including in the conclusion but there appears to be no separate consideration of Green Belt openness in the assessment.

Summarise the findings of the review of the actual assessment of effects:

The assessment provides suitable evidence of the iterative assessment-design process and the proposed mitigation seems adequate.

The volume of the information provided within the assessment seems proportionate but there remain some points of clarity regarding the assessment of effects.

The landscape baseline discusses LCAs from the South Bucks and the CVRP Landscape Character Assessments but only the CVRP LCA was taken forward for further assessment. The landscape baseline also discusses the physical components of the site but it is unclear how this relates to the other landscape receptors identified for assessment.

The assessment of landscape effects begins with an overview of landscape effects of the component parts of the proposed development but it is unclear which receptors these relate to. There is limited discussion of how the proposed development as a whole would change the baseline of the different receptors. There are limited and inconsistent references to the different factors that contribute to magnitude of change, and which are mentioned in the methodology.

Justification is given for the scoping of viewpoints but there is no rationale given for the list of visual receptors that was taken forward for further assessment.

The visual assessment considers individual viewpoints as well as the visual amenity of different groups of people. However, there is no baseline description of the views these groups currently experience or their value, as has been provided for some of the individual viewpoints. Some receptors with the same sensitivity and levels of magnitude have been assessed as having different levels of significance with no explanation to justify the inconsistencies.

The cumulative assessment does not consider the cumulative landscape impacts. The cumulative visual impacts appear to assess the proposed development assuming the HS2 viaduct as a future baseline scenario rather the combined effect that the two schemes would have.

Throughout the assessment of effects, there is little consideration given to if/how the magnitude of change would change over time for each landscape and visual receptor.

Summarise the findings of the presentation of the assessment:

The assessment is hard to follow at times due to inconsistency of subheadings, particularly in the baseline sections. The term 'significant' is also used interchangeably in its EIA context and as a general adjective which is not always immediately clear.

The supporting graphics in the appendices, particularly the Landscape Strategy, are effective in communicating the characteristics of the landscape.

The supporting LCA figure in App 10.1 does not contain all the LCAs listed that are identified as landscape receptors and does not have a corresponding key.

The text refers to only two viewpoint locations warranting AVRs but three have been included at Appendix 10.5.

Provide a statement by the reviewer in respect of appropriateness, quality, comprehensiveness, compliance and conformity with relevant guidance and regulations:

The LVIA chapter is fairly comprehensive but there are some clarifications required before a decision can be made on its conformity with relevant guidance and EIA Regulations.

Can the assessment be relied upon in order to make an informed decision and in the case of incompleteness or in adequacy of the assessment? If not, please provide a summary statement of areas of concern and recommendations for further study and assessment:

It is considered that the assessment in its current form cannot yet be relied upon to make an informed decision. The following recommendations are therefore made:

- Provide an assessment of the impact on Green Belt and the associated loss of openness.
- Provide the value and susceptibility of each visual receptor and viewpoint to justify their sensitivity.
- Provide an assessment of the cumulative landscape impacts and confirm the combined effect of the cumulative schemes in the cumulative visual assessment.
- The NTS should be updated to reflect any changes to the assessment following the submission of the updated information.
- Clarify how the landscape and visual receptors taken for further assessment have been determined.
- Provide a key on the LCA figures contained at ES Volume II, Appendix 10.
- Clarify how the visualisations comply with the LI TGN 06/19 Visual Representation of the proposed development.
- Provide the baseline scenario for the visual receptors and their associated value on which the assessment has been based.
- Clarify the value of each landscape receptors with reference to the criteria given in the methodology.
- Clarify the specific effects of the proposed development for each identified landscape receptors to justify the magnitude with reference to scale, geographic extent, duration, and reversibility.
- Provide greater rationale for the levels of significance to justify how some receptors with the same sensitivity and levels of magnitude have been assessed as having different levels of significance.
- Clarify how the landscape and visual effects would change over time with reference to the identified assessment scenarios.



Appendix 3.5: 2023 ES Review Response

Response to ‘London Borough of Hillingdon HWSFAC – Broadwater Lake Interim Review Report Final’ (ARUP, dated December 2023)

Introduction

- 1.1 This document responds to the comments made in relation to the 2023 ES in the Hillingdon Water Sports Facility and Activity Centre (‘HWSFAC’) Initial Review Report (‘IRR’) prepared by the environmental consultants Arup on behalf of London Borough of Hillingdon (‘LBH’) dated 19 December 2023. The IRR provided an independent review of the 2023 ES which accompanied the submitted planning application for the HWSFAC (Application Ref: 2382/APP/2023/2906).
- 1.2 A response is provided to each of the ‘Clarifications’ and ‘Potential Regulation 25’ information requests raised in the IRR and sets out how the updated ES which accompanies the revised submission addresses each matter. Signposting to relevant sections of the ES is provided as appropriate. It should be noted that due to the revised proposals, some of the comments are no longer valid and this is stated where relevant.



Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
Scope of the EIA (Quod)		
Review of proposed development and site information		
2.1	Clarification required: Confirm the sensitivity and location of the 'semi-formal' residential properties mentioned in ES Volume 1, Chapter 2, paragraph 2.2.4 and that these properties have been fully assessed.	The reference to 'semi-formal' residential properties has been amended in Chapter 2 to refer to a small number of motorhomes that are parked to the west of the Access Road. These are considered as sensitive receptors and afforded the same sensitivity as permanent residential properties.
2.2	Clarification required: The proposed development appears to include a number of additional buildings categorised under 'other buildings' which increases the overall footprint of the proposed development. Noting the site is within green belt, confirm whether it is possible to consolidate any of the buildings to reduce the overall development footprint.	As part of the design review since submission of the 2023 Scheme the Applicant has taken the opportunity to further consolidate buildings. This has resulted in the overall built development footprint being reduced by 1,200m ² Gross External Area (GEA) from that of the submitted 2023 Scheme. A description of the buildings and a breakdown of the development footprint is presented in Section 5.5 of Chapter 5: Description of the Development.
	Potential Regulation 25 request: Further information is needed on the proposed dredge depths to provide confidence that the 47,500 cubic metres fill volume can be achieved. Confirm what measures will be put in place should the fill volume not be matched by the proposed dredge volume. Confirm whether there would be any intention to	The cut and fill strategy has been reviewed in association with the revised proposals. Revised dredging and land reclamation requirements are described in Chapter 6: Construction (Figure 6.1). Overall, the dredging and island removal volumes have decreased from 47,356m ³ to 7,094m ³ . There would be no intention to import additional material for land reclamation. The majority of excess fill will be re-used onsite. Should dredged material need to be removed from the Site it would be done in accordance with an



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	import additional material for land reclamation or what measures would be in place should dredged material need to be removed from the site.	Environmental Permit. Further details are provided in Appendix 6.1: Outline CEMP which accompanies the planning application.
	Potential Regulation 25 request: Confirm what measures will be in place to maintain the new dredge depths within Broadwater Lake and the likely impacts of any future dredging requirements.	Section 5.7 of Chapter 5: Description of the Development now confirms that measures are not required to maintain new dredged depths of the lake. This due to the fact that Broadwater Lake is not an 'online' waterbody with regular (or even infrequent) inputs of fluvial sediment. Inputs of solid matter, for example from bird faeces and leaf litter will contribute to organic matter on the lake bed, but this is already occurring and will not be exacerbated by the proposals. The Applicant will implement a Mitigation and Ecological Management Plan (MEMP) which will include formal management over the long term could help to reduce this if necessary, through managing overhanging trees etc. Inputs of organic matter will be important in terms of supporting the bottom of the food chain in the lake. Sediment from operation of the Site would be very minimal and would be controlled through the sustainable drainage systems.
	Potential Regulation 25 request: No details are provided on what the man-made [artificial] caving system will entail, along with other proposed activities in the outdoor area such as the high- and low-	High- and low-level ropes and zip wire are no longer proposed for HWSFAC. The above-ground artificial caving system would comprise interconnected corrugated black drainage pipes or similar between c. 600 to 900mm in diameter laid on the ground. Earthworks mounds either side of the pipe are



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	level ropes and zip wire. Confirm how the man-made [artificial] caving system, along with other elements in the outdoor activity area, will be constructed and whether any excavation or foundation works will be required.	required to stabilise the pipes and create suitable nature habitat. Entry/exit points are likely to be short timber cabins/boxes, or plastic manhole chambers laid flat.
	Clarification required: Confirm whether the Broadwater Rowing Club will continue to operate at the site as part of the new HOAC facilities and if so, confirm where these facilities will be located.	The Broadwater Rowing Club will not be relocating to the Site and therefore there are no additional facilities included for the rowing club. Rowing is not one of the water-based activities proposed at HWSFAC.
	Clarification required: Confirm which measures have been considered embedded mitigation and taken into account as part of the pre-mitigation technical assessments, and which measures are considered additional mitigation. The list should be more detailed and consistent with that described in ES Volume 1, Chapter 11, Summary.	A Mitigation Schedule (including 'embedded' and 'additional') is now provided in Appendix 11.1.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Potential Regulation 25 request: Provide further information to demonstrate that the proposed development has sought to maximise BNG towards the minimum 10% requirement and explore further opportunities to improve and enhance biodiversity at the site.	<p>The BNG strategy for the Site is based upon three years of survey data and engagement with Natural England to ensure that opportunities to improve and enhance biodiversity at the Site have been maximised.</p> <p>The BNG Assessment has been updated to reflect the revised proposals using the statutory biodiversity metric. The BNG Assessment indicates that the Proposed Development would achieve the minim 10% requirement.</p> <p>The BNG Metric is based on an assessment of the habitats both on the area provided and also the condition of that habitat. Generally, this provides an assessment based on quantitative terms, with some consideration for qualitative gain/loss. It does not however, specifically include an assessment of the value of said habitat(s) for protected species / groups of species. This is an important note to consider because although the proposals can be demonstrated to have an overall small net gain for biodiversity, the actual value, in qualitative terms for the faunal species that use these habitats is considered to be significantly greater.</p>
	Potential Regulation 25 request: Confirm when construction of HS2 is expected to be completed and whether there is likely to be any overlap with the proposed development construction works during 2024, particularly along	<p>Construction of the Colne Valley Viaduct was completed in Q4 2024 and the construction programme will therefore no longer overlap with that of the Proposed Development.</p> <p>There will be on-going works associated with HS2 in other locations however HGV movements along Moorhall Road are greatly reduced.</p>



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Moorhall Road. Assess the likely cumulative construction impacts of the proposed development alongside HS2.	As such there are not likely to be cumulative construction impacts of the Proposed Development alongside HS2.
	Potential Regulation 25 request: Confirm the activities, associated with the enabling works, intended to take place during the summer / spawning season 2024 and the likely impacts of these activities on aquatic species. Confirm how these impacts will be mitigated and managed.	<p>The timing of works has been carefully considered due to the ecological sensitivity of the Site and the surrounds. Wintering birds are present from mid-October to mid-March; breeding birds are present March to August. This only leaves the month of September where works may be undertaken within the lake without impacting either receptor. Table 6.1 in Chapter 6: Construction shows the timing of works for construction.</p> <p>The likely impacts of these construction activities on aquatic species has been considered in Chapter 7: Biodiversity.</p>
	Clarification required: Confirm whether HOAC will be operational at the weekend. Present timings of existing BSC operations alongside Table 5.1 to demonstrate level of activity on Broadwater Lake throughout the week/year.	Section 5.13 of ES Chapter 5: Description of the Development, states that HWSFAC will operate Monday to Friday and will not operate at weekends.
Review of ES format, presentation and scope		
3.	Clarification required: Review the detailed design of the proposed	A review of the final development description and how it has changed from that included at scoping stage has been included in Appendix 3.6. This includes



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	development that was submitted for planning against the description of development set out within the adopted scoping opinion and provide a commentary on the technical topics scoped out and whether there would likely be any change to the assessment of likely significant effects.	commentary on the topics scoped out and whether there are any changes to the scope of the ES in relation to the likely significant effects.
	Potential Regulation 25 request: Provide an assessment of the likely intra-project cumulative effects.	<p>The assessment of combined effects (intra-project effects) is inherent in the assessments undertaken in Chapter 7 to 9 of the ES which already consider multiple impacts on a single receptor. For example combined impacts from physical disturbance and changes to lighting, noise, water quality and air quality are considered on the Mid-Colne Valley SSSI. As such it was not deemed necessary to repeat these assessments elsewhere in the ES.</p> <p>There is no potential for any intra-project cumulative effects between the effects assessed in Chapters 7 to 9 and the effects assessed in Chapter 10: Landscape and Visual Impact Assessment.</p>
	Potential Regulation 25 request: Update the NTS to take account of any changes to the significance of effects as a result of comments on the detailed	The NTS (dated August 2025) has been updated to reflect the revised proposals and the updated ES.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	technical assessments and to include potentially significant cumulative effects.	
Chapter 7: Biodiversity		
4.3	Potential Regulation 25 request: Confirm whether any of the habitats at the site could qualify as brownfield land and be of higher ecological value and would require compensation should they be lost.	<p>Whilst much of the Site has been previously developed for mineral extraction, no habitats on-Site qualify as brownfield habitat or the UK BAP habitat of 'open mosaic land on previously developed land'.</p> <p>The Preliminary Ecological Appraisal (ES Appendix 7.1) includes information from a government website (MAGIC.gov.uk) which indicatively shows some of the Site as 'open mosaic habitat', however, this indication is not based on detailed surveys of the Site.</p> <p>Further justification and explanation of why the habitats on-Site do not meet the definition of brownfield habitat (or open mosaic habitat on previously developed land) is provided in section 4.2 of the Preliminary Ecological Appraisal (ES Appendix 7.1). This assessment was undertaken by an ecologist competent in assessing open mosaic habitat on previously developed land. In brief, the substrates at the peninsula were too hard, and the total area that may have qualified (moss lawn pioneer habitat on concrete hardstanding with atypically species-poor selection of ruderals and tall ephemeral and patches of bare concrete) was too small.</p>



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
		The Baseline Conditions section of Chapter 7: Biodiversity has been updated to confirm this position.
	Potential Regulation 25 request: Provide justification for the single season of wintering bird survey data given the sensitivities at the site. It is recommended that wintering bird survey data for the current survey season is collected to supplement the submitted survey results and provide additional information on the current populations.	<p>The 2023 ES included a single wintering bird season as there had only been one suitable season between when the Site was chosen as the preferred destination for HWSFAC and the planning application being submitted.</p> <p>Additional wintering bird surveys were undertaken during the 2023-2024 season and these are included in the updated ES.</p> <p>Other bird data was also assessed and considered in the ES as follows.</p> <ul style="list-style-type: none">▪ BTO WeBS Survey Data: Analysis of 5-year mean data for the Colne Valley Gravel Pits from WeBS (see Section 5.3 and Table 5.4 of ES Appendix 7.6: Wintering Bird Survey Report). The contribution of Broadwater Lake in supporting the bird populations within the Colne Valley was established by comparing years when Broadwater Lake was / was not included in the WeBS survey data. 2018/19 was the last year when the lake was included in WeBS survey data. This comparison allowed the population at Broadwater Lake to be established through deduction and an assessment of change (+ or -). Therefore, WeBS data provided site-specific data from 2018/19 and allowed meaningful comparison of the individual bird species numbers between 2018/19 and 2022/23.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
		<ul style="list-style-type: none">▪ Natural England 2023 SSSI Condition Assessment – this provided further context for the assessment and was informed by WeBS survey data.▪ 2008 report on the bird populations of the Colne Valley was reviewed (Table 5.4 of Appendix 7.6 of the ES) which provided some evaluations of populations of key species at Broadwater Lake from that time. <p>Updated data where available, is relied upon in the updated ES which comprises three years of survey data. The updated assessment is informed by non-consecutive survey data from 2018/19 and 2008.</p>
4.4	Potential Regulation 25 request: In line with CIEEM guidance, provide further information on the ecological value of the baseline habitats and the site, taking into account changes in the future condition as a result of climate change. Any updates should be considered within revised calculations for biodiversity net gain. Review and update the impact assessment, as necessary.	The ecological value of the baseline habitats has been reviewed in the ES, taking into account changes in the future condition as a result of climate change under 'Future Baseline'.
	Potential Regulation 25 request: Provide further information on the intended land-based outdoor activities	The ES includes further information on the land-based outdoor activities including Figure 5.7 which shows habitat areas which will be accessible for activity users.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	including the extent of where these will be located across the site and which habitat areas will be accessible for activity users. Provide more detail on how these land-based activities will be managed to avoid disturbance to habitats and species present at the site.	Section 7.7: Embedded Scheme Mitigation provides further detail on how land-based activities will be managed to avoid disturbance to habitats and species present at the Site. An Outline OMP (Appendix 5.3) is also which includes measure to control the future operational activities of the Proposed Development.
	Potential Regulation 25 request: Provide further assessment of the likely significant impacts on other aquatic species, such as otters, to ensure a comprehensive approach to ecological mitigation at the site.	Further assessment is provided on the likely significant impacts of the Proposed Development on other aquatic species, such as fish, eel and otters is provided in Chapter 7: Biodiversity.
4.5	Potential Regulation 25 request: Confirm how the proposed mitigation measures link to, address, or ideally enhance the areas of the Mid Colne Valley SSSI that are currently assessed by Natural England as being in unfavourable condition.	The condition of Units (i.e. land parcels) of the SSSI within the Site were assessed as being in Unfavourable condition by Natural England in 2023. The other units of the SSSI lie outside the application boundary and ownership so it would not be possible to directly enhance these land parcels. The Natural England SSSI condition assessment (Site feature condition (naturalengland.org.uk)) sets out the full reasoning for the Unfavourable condition status of each Unit. SSSI Unit condition assessment information has been included in the updated ES.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Potential Regulation 25 request: Provide more information on the proposed extent of the reprofiling and dredging works to inform the assessment of how the proposed design will impact ecology.	Chapter 6: Construction provides details on the revised proposals for reprofiling and dredging works. The associated effects on ecological receptors has been updated as appropriate in Chapter 8: Biodiversity based on the revised proposals.
	Clarification required: Confirm how the proposed development mitigation aligns with the HS2 mitigation requirements in terms of delivery timings and an integrated ecological strategy to maximise benefits.	The Applicant is in regular contact with HS2 to co-ordinate provision of HS2's mitigation proposals within the lake. Tern rafts will be installed by HS2 prior to the commencement of construction. The islands will be signed over to LBH to manage long-term, and their management will be fully co-ordinated with the management of the landscaping and mitigation and enhancements proposed for HWSFAC.
4.6	Potential Regulation 25 request: Provide a more detailed cumulative assessment of the likely in-combination effects arising from the proposed development and HS2, as well as the in-combination effects of the proposed development on ecological receptors. Related to this, provide more evidence to demonstrate that the proposed landscaping will be an effective measure to mitigate the impacts of disturbance.	A more detailed cumulative assessment of the likely in-combination effects of the Proposed Development with HS2 has been included in the updated ES.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Clarification required: Confirm whether the combined loss of open water from the HS2 and proposed development will exceed the 5% trigger and provide a clear reference for this trigger and why it is appropriate.	The Proposed Development will result in no net loss of open water.
Chapter 8: Water Resources and Flood Risk		
5.3	Potential Regulation 25 request: Provide the baseline conditions for surface water and foul water, as well as identify any existing drainage infrastructure at the site.	<p>Further information on the existing (baseline) conditions for surface water and foul water provided in the baseline section of the ES chapter.</p> <p>Foul water: There are no operational private foul water/sewerage facilities at the Site. Sewer records provided by Thames Water (Appendix G to the FRA) indicate that there is no public foul sewerage infrastructure on the main part of the Site. The only public sewerage infrastructure located within the Site is a 300 mm diameter public foul sewer located that runs on a north-south alignment to the east of the Grand Union Canal. The public sewer crosses the discrete land parcel located to the north of the Mayling Transport facility off Broadwater Lane (.e. the east parcel), and to the east of the residential development of St Mary's Road/St Mary's Close.</p> <p>Surface water: There is no known private drainage infrastructure within the Site. Sewer records provided by Thames Water (Appendix G to the FRA</p>



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
		report) indicate that there is no public surface water sewerage infrastructure within the Site. Direct rainfall currently infiltrates into existing ground where the ground is permeable or, in the case of existing (legacy) impermeable surfaces, sheds off the surfaces onto the nearest permeable surfaces. Environment Agency mapping of surface water runoff (Figure 7 of the FRA) confirms that there are no overland flow pathways across the Site.
	Clarification required: Clarify why Korda Lake and Harefield Moor Lake are not specifically identified as receptors in ES Volume 1, Chapter 8, paragraph 8.4.25.	Korda Lake and Harefield Moor Lake, located to the south of Broadwater Lake, form units within the wider Mid-Colne Valley SSSI and have specifically identified as receptors in the updated Chapter 8: Water Resources and Flood Risk ES chapter.
5.5	Potential Regulation 25 request: Provide further quantitative information to demonstrate that the proposed dredging activities, land reclamation and small island creation, will not result in an increase in flood risk either within the site or elsewhere.	Further information on the impact of the Proposed Development on lake levels has been provided in the updated Chapter 8: Water Resources and Flood Risk ES chapter.
Chapter 9: Ground Conditions and Contamination		
6.3	Potential Regulation 25 request: Provide the updated Phase II geo-environmental	An updated human health and ground gas risk assessment taking into consideration the known baseline conditions and submitted proposed



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	interpretative report, including the updated human health and ground gas risk assessments, to ensure a robust and comprehensive risk assessment has been undertaken for the site, taking into consideration the known baseline conditions and submitted proposed development design.	development design is provided in included in paragraphs 9.6.21 to 9.6.36 and 9.7.20 to 9.7.26 of Chapter 9: Ground Contamination.
6.4	Potential Regulation 25 request: The ground gas assessment should be updated to reflect the proposed development design submitted for planning. The assessment should take into account any likely significant effects associated with the unregistered landfill. This is required to adequately assess effects during the construction phase, due to potential health and safety implications.	An updated human health and ground gas risk assessment taking into consideration the known baseline conditions and submitted proposed development design is provided in in paragraphs 9.6.21 to 9.6.36 and 9.7.20 to 9.7.26 of Chapter 9: Ground Contamination. This has taken account of risks associated with the unregistered landfill.
6.8	Potential Regulation 25 request: The NTS should be updated to reflect any changes to the assessment following the submission of the updated geo-environmental interpretative report.	The NTS has been updated to reflect the revised proposals and changes to the assessment and is submitted alongside the updated ES.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
Chapter 10: Landscape and Visual Impact Assessment		
7.2	Potential Regulation 25 request: Provide an assessment of the impact on Green Belt and the associated loss of openness.	An assessment of the impact of the Proposed Development on the Green Belt is provided in the Planning Statement. As Green Belt is a planning, rather than environmental designation, further assessment is not considered necessary in the ES under the EIA Regulations.
7.3	Clarification required: Clarify how the landscape and visual receptors taken for further assessment have been determined.	In light of the revised scheme an updated ZTV has been undertaken to determine if there are any new receptors. The justification for the landscape and visual receptors taken for further assessment have been clarified in the updated Chapter 10: Landscape and Visual Impact Assessment.
	Potential Regulation 25 request: Provide the value and susceptibility of each visual receptor and viewpoint to justify their sensitivity.	The value and susceptibility of each visual receptor and viewpoint to justify their sensitivity has been provided in the updated Chapter 10: Landscape and Visual Impact Assessment.
	Clarification required: Provide a key on the LCA figures contained at ES Volume II, Appendix 10.1.	A key has been provided on all LCA figures in the updated Chapter 10: Landscape and Visual Impact Assessment.
7.4	Clarification required: Clarify how the visualisations comply with the LI TGN 06/19 Visual Representation of the proposed development.	The visualisations have been updated to assess the revised scheme. The Applicant will ensure that visualisations comply with the LI TGN 06/19 Visual Representation. This is clarified in the updated Chapter 10: Landscape and Visual Impact Assessment.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Clarification required: Provide the baseline scenario for the visual receptors and their associated value on which the assessment has been based.	The baseline scenario for the visual receptors and their associated value have been provided in the updated Chapter 10: Landscape and Visual Impact Assessment.
	Clarification required: Clarify the value of each landscape receptors with reference to the criteria given in the methodology.	The assessed value of each landscape receptor has been clarified in the updated Chapter 10: Landscape and Visual Impact Assessment.
	Clarification required: Clarify the specific effects of the proposed development for each identified landscape receptors to justify the magnitude with reference to scale, geographic extent, duration, and reversibility.	The specific effects of the Proposed Development for each identified landscape receptors have been provided in the updated ES with reference to scale, geographic extent, duration, and reversibility.
7.6	Potential Regulation 25 request: Provide an assessment of the cumulative landscape impacts and confirm the combined effect of the cumulative schemes in the cumulative visual assessment.	An assessment of the cumulative landscape and updated cumulative assessment of visual impacts have been provided in the updated Chapter 10: Landscape and Visual Impact Assessment.
7.7	Clarification required: Provide greater rationale for the levels of significance to	The assessment of significance has been reviewed and expanded in the updated Chapter 10: Landscape and Visual Impact Assessment.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	justify how some receptors with the same sensitivity and levels of magnitude have been assessed as having different levels of significance.	
	Clarification required: Clarify how the landscape and visual effects would change over time with reference to the identified assessment scenarios.	The updated ES clarifies how the landscape and visual effects would change over time for the completed Proposed Development.
7.8	Potential Regulation 25 request: The NTS should be updated to reflect any changes to the assessment following the submission of the updated information.	The NTS has been updated and submitted alongside the updated Chapter 10: Landscape and Visual Impact Assessment.



Appendix 3.5: 2023 ES Review Response

Response to ‘London Borough of Hillingdon HWSFAC – Broadwater Lake Interim Review Report Final’ (ARUP, dated December 2023)

Introduction

- 1.1 This document responds to the comments made in relation to the 2023 ES in the Hillingdon Water Sports Facility and Activity Centre (‘HWSFAC’) Initial Review Report (‘IRR’) prepared by the environmental consultants Arup on behalf of London Borough of Hillingdon (‘LBH’) dated 19 December 2023. The IRR provided an independent review of the 2023 ES which accompanied the submitted planning application for the HWSFAC (Application Ref: 2382/APP/2023/2906).
- 1.2 A response is provided to each of the ‘Clarifications’ and ‘Potential Regulation 25’ information requests raised in the IRR and sets out how the updated ES which accompanies the revised submission addresses each matter. Signposting to relevant sections of the ES is provided as appropriate. It should be noted that due to the revised proposals, some of the comments are no longer valid and this is stated where relevant.



Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
Scope of the EIA (Quod)		
Review of proposed development and site information		
2.1	Clarification required: Confirm the sensitivity and location of the 'semi-formal' residential properties mentioned in ES Volume 1, Chapter 2, paragraph 2.2.4 and that these properties have been fully assessed.	The reference to 'semi-formal' residential properties has been amended in Chapter 2 to refer to a small number of motorhomes that are parked to the west of the Access Road. These are considered as sensitive receptors and afforded the same sensitivity as permanent residential properties.
2.2	Clarification required: The proposed development appears to include a number of additional buildings categorised under 'other buildings' which increases the overall footprint of the proposed development. Noting the site is within green belt, confirm whether it is possible to consolidate any of the buildings to reduce the overall development footprint.	As part of the design review since submission of the 2023 Scheme the Applicant has taken the opportunity to further consolidate buildings. This has resulted in the overall built development footprint being reduced by 1,200m ² Gross External Area (GEA) from that of the submitted 2023 Scheme. A description of the buildings and a breakdown of the development footprint is presented in Section 5.5 of Chapter 5: Description of the Development.
	Potential Regulation 25 request: Further information is needed on the proposed dredge depths to provide confidence that the 47,500 cubic metres fill volume can be achieved. Confirm what measures will be put in place should the fill volume not be matched by the proposed dredge volume. Confirm whether there would be any intention to	The cut and fill strategy has been reviewed in association with the revised proposals. Revised dredging and land reclamation requirements are described in Chapter 6: Construction (Figure 6.1). Overall, the dredging and island removal volumes have decreased from 47,356m ³ to 7,094m ³ . There would be no intention to import additional material for land reclamation. The majority of excess fill will be re-used onsite. Should dredged material need to be removed from the Site it would be done in accordance with an



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	import additional material for land reclamation or what measures would be in place should dredged material need to be removed from the site.	Environmental Permit. Further details are provided in Appendix 6.1: Outline CEMP which accompanies the planning application.
	Potential Regulation 25 request: Confirm what measures will be in place to maintain the new dredge depths within Broadwater Lake and the likely impacts of any future dredging requirements.	Section 5.7 of Chapter 5: Description of the Development now confirms that measures are not required to maintain new dredged depths of the lake. This due to the fact that Broadwater Lake is not an 'online' waterbody with regular (or even infrequent) inputs of fluvial sediment. Inputs of solid matter, for example from bird faeces and leaf litter will contribute to organic matter on the lake bed, but this is already occurring and will not be exacerbated by the proposals. The Applicant will implement a Mitigation and Ecological Management Plan (MEMP) which will include formal management over the long term could help to reduce this if necessary, through managing overhanging trees etc. Inputs of organic matter will be important in terms of supporting the bottom of the food chain in the lake. Sediment from operation of the Site would be very minimal and would be controlled through the sustainable drainage systems.
	Potential Regulation 25 request: No details are provided on what the man-made [artificial] caving system will entail, along with other proposed activities in the outdoor area such as the high- and low-	High- and low-level ropes and zip wire are no longer proposed for HWSFAC. The above-ground artificial caving system would comprise interconnected corrugated black drainage pipes or similar between c. 600 to 900mm in diameter laid on the ground. Earthworks mounds either side of the pipe are



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	level ropes and zip wire. Confirm how the man-made [artificial] caving system, along with other elements in the outdoor activity area, will be constructed and whether any excavation or foundation works will be required.	required to stabilise the pipes and create suitable nature habitat. Entry/exit points are likely to be short timber cabins/boxes, or plastic manhole chambers laid flat.
	Clarification required: Confirm whether the Broadwater Rowing Club will continue to operate at the site as part of the new HOAC facilities and if so, confirm where these facilities will be located.	The Broadwater Rowing Club will not be relocating to the Site and therefore there are no additional facilities included for the rowing club. Rowing is not one of the water-based activities proposed at HWSFAC.
	Clarification required: Confirm which measures have been considered embedded mitigation and taken into account as part of the pre-mitigation technical assessments, and which measures are considered additional mitigation. The list should be more detailed and consistent with that described in ES Volume 1, Chapter 11, Summary.	A Mitigation Schedule (including 'embedded' and 'additional') is now provided in Appendix 11.1.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Potential Regulation 25 request: Provide further information to demonstrate that the proposed development has sought to maximise BNG towards the minimum 10% requirement and explore further opportunities to improve and enhance biodiversity at the site.	<p>The BNG strategy for the Site is based upon three years of survey data and engagement with Natural England to ensure that opportunities to improve and enhance biodiversity at the Site have been maximised.</p> <p>The BNG Assessment has been updated to reflect the revised proposals using the statutory biodiversity metric. The BNG Assessment indicates that the Proposed Development would achieve the minim 10% requirement.</p> <p>The BNG Metric is based on an assessment of the habitats both on the area provided and also the condition of that habitat. Generally, this provides an assessment based on quantitative terms, with some consideration for qualitative gain/loss. It does not however, specifically include an assessment of the value of said habitat(s) for protected species / groups of species. This is an important note to consider because although the proposals can be demonstrated to have an overall small net gain for biodiversity, the actual value, in qualitative terms for the faunal species that use these habitats is considered to be significantly greater.</p>
	Potential Regulation 25 request: Confirm when construction of HS2 is expected to be completed and whether there is likely to be any overlap with the proposed development construction works during 2024, particularly along	<p>Construction of the Colne Valley Viaduct was completed in Q4 2024 and the construction programme will therefore no longer overlap with that of the Proposed Development.</p> <p>There will be on-going works associated with HS2 in other locations however HGV movements along Moorhall Road are greatly reduced.</p>



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Moorhall Road. Assess the likely cumulative construction impacts of the proposed development alongside HS2.	As such there are not likely to be cumulative construction impacts of the Proposed Development alongside HS2.
	Potential Regulation 25 request: Confirm the activities, associated with the enabling works, intended to take place during the summer / spawning season 2024 and the likely impacts of these activities on aquatic species. Confirm how these impacts will be mitigated and managed.	<p>The timing of works has been carefully considered due to the ecological sensitivity of the Site and the surrounds. Wintering birds are present from mid-October to mid-March; breeding birds are present March to August. This only leaves the month of September where works may be undertaken within the lake without impacting either receptor. Table 6.1 in Chapter 6: Construction shows the timing of works for construction.</p> <p>The likely impacts of these construction activities on aquatic species has been considered in Chapter 7: Biodiversity.</p>
	Clarification required: Confirm whether HOAC will be operational at the weekend. Present timings of existing BSC operations alongside Table 5.1 to demonstrate level of activity on Broadwater Lake throughout the week/year.	Section 5.13 of ES Chapter 5: Description of the Development, states that HWSFAC will operate Monday to Friday and will not operate at weekends.
Review of ES format, presentation and scope		
3.	Clarification required: Review the detailed design of the proposed	A review of the final development description and how it has changed from that included at scoping stage has been included in Appendix 3.6. This includes



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	development that was submitted for planning against the description of development set out within the adopted scoping opinion and provide a commentary on the technical topics scoped out and whether there would likely be any change to the assessment of likely significant effects.	commentary on the topics scoped out and whether there are any changes to the scope of the ES in relation to the likely significant effects.
	Potential Regulation 25 request: Provide an assessment of the likely intra-project cumulative effects.	<p>The assessment of combined effects (intra-project effects) is inherent in the assessments undertaken in Chapter 7 to 9 of the ES which already consider multiple impacts on a single receptor. For example combined impacts from physical disturbance and changes to lighting, noise, water quality and air quality are considered on the Mid-Colne Valley SSSI. As such it was not deemed necessary to repeat these assessments elsewhere in the ES.</p> <p>There is no potential for any intra-project cumulative effects between the effects assessed in Chapters 7 to 9 and the effects assessed in Chapter 10: Landscape and Visual Impact Assessment.</p>
	Potential Regulation 25 request: Update the NTS to take account of any changes to the significance of effects as a result of comments on the detailed	The NTS (dated August 2025) has been updated to reflect the revised proposals and the updated ES.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	technical assessments and to include potentially significant cumulative effects.	
Chapter 7: Biodiversity		
4.3	Potential Regulation 25 request: Confirm whether any of the habitats at the site could qualify as brownfield land and be of higher ecological value and would require compensation should they be lost.	<p>Whilst much of the Site has been previously developed for mineral extraction, no habitats on-Site qualify as brownfield habitat or the UK BAP habitat of 'open mosaic land on previously developed land'.</p> <p>The Preliminary Ecological Appraisal (ES Appendix 7.1) includes information from a government website (MAGIC.gov.uk) which indicatively shows some of the Site as 'open mosaic habitat', however, this indication is not based on detailed surveys of the Site.</p> <p>Further justification and explanation of why the habitats on-Site do not meet the definition of brownfield habitat (or open mosaic habitat on previously developed land) is provided in section 4.2 of the Preliminary Ecological Appraisal (ES Appendix 7.1). This assessment was undertaken by an ecologist competent in assessing open mosaic habitat on previously developed land. In brief, the substrates at the peninsula were too hard, and the total area that may have qualified (moss lawn pioneer habitat on concrete hardstanding with atypically species-poor selection of ruderals and tall ephemeral and patches of bare concrete) was too small.</p>



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
		The Baseline Conditions section of Chapter 7: Biodiversity has been updated to confirm this position.
	Potential Regulation 25 request: Provide justification for the single season of wintering bird survey data given the sensitivities at the site. It is recommended that wintering bird survey data for the current survey season is collected to supplement the submitted survey results and provide additional information on the current populations.	<p>The 2023 ES included a single wintering bird season as there had only been one suitable season between when the Site was chosen as the preferred destination for HWSFAC and the planning application being submitted.</p> <p>Additional wintering bird surveys were undertaken during the 2023-2024 season and these are included in the updated ES.</p> <p>Other bird data was also assessed and considered in the ES as follows.</p> <ul style="list-style-type: none">▪ BTO WeBS Survey Data: Analysis of 5-year mean data for the Colne Valley Gravel Pits from WeBS (see Section 5.3 and Table 5.4 of ES Appendix 7.6: Wintering Bird Survey Report). The contribution of Broadwater Lake in supporting the bird populations within the Colne Valley was established by comparing years when Broadwater Lake was / was not included in the WeBS survey data. 2018/19 was the last year when the lake was included in WeBS survey data. This comparison allowed the population at Broadwater Lake to be established through deduction and an assessment of change (+ or -). Therefore, WeBS data provided site-specific data from 2018/19 and allowed meaningful comparison of the individual bird species numbers between 2018/19 and 2022/23.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
		<ul style="list-style-type: none">▪ Natural England 2023 SSSI Condition Assessment – this provided further context for the assessment and was informed by WeBS survey data.▪ 2008 report on the bird populations of the Colne Valley was reviewed (Table 5.4 of Appendix 7.6 of the ES) which provided some evaluations of populations of key species at Broadwater Lake from that time. <p>Updated data where available, is relied upon in the updated ES which comprises three years of survey data. The updated assessment is informed by non-consecutive survey data from 2018/19 and 2008.</p>
4.4	Potential Regulation 25 request: In line with CIEEM guidance, provide further information on the ecological value of the baseline habitats and the site, taking into account changes in the future condition as a result of climate change. Any updates should be considered within revised calculations for biodiversity net gain. Review and update the impact assessment, as necessary.	The ecological value of the baseline habitats has been reviewed in the ES, taking into account changes in the future condition as a result of climate change under 'Future Baseline'.
	Potential Regulation 25 request: Provide further information on the intended land-based outdoor activities	The ES includes further information on the land-based outdoor activities including Figure 5.7 which shows habitat areas which will be accessible for activity users.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	including the extent of where these will be located across the site and which habitat areas will be accessible for activity users. Provide more detail on how these land-based activities will be managed to avoid disturbance to habitats and species present at the site.	Section 7.7: Embedded Scheme Mitigation provides further detail on how land-based activities will be managed to avoid disturbance to habitats and species present at the Site. An Outline OMP (Appendix 5.3) is also which includes measure to control the future operational activities of the Proposed Development.
	Potential Regulation 25 request: Provide further assessment of the likely significant impacts on other aquatic species, such as otters, to ensure a comprehensive approach to ecological mitigation at the site.	Further assessment is provided on the likely significant impacts of the Proposed Development on other aquatic species, such as fish, eel and otters is provided in Chapter 7: Biodiversity.
4.5	Potential Regulation 25 request: Confirm how the proposed mitigation measures link to, address, or ideally enhance the areas of the Mid Colne Valley SSSI that are currently assessed by Natural England as being in unfavourable condition.	The condition of Units (i.e. land parcels) of the SSSI within the Site were assessed as being in Unfavourable condition by Natural England in 2023. The other units of the SSSI lie outside the application boundary and ownership so it would not be possible to directly enhance these land parcels. The Natural England SSSI condition assessment (Site feature condition (naturalengland.org.uk)) sets out the full reasoning for the Unfavourable condition status of each Unit. SSSI Unit condition assessment information has been included in the updated ES.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Potential Regulation 25 request: Provide more information on the proposed extent of the reprofiling and dredging works to inform the assessment of how the proposed design will impact ecology.	Chapter 6: Construction provides details on the revised proposals for reprofiling and dredging works. The associated effects on ecological receptors has been updated as appropriate in Chapter 8: Biodiversity based on the revised proposals.
	Clarification required: Confirm how the proposed development mitigation aligns with the HS2 mitigation requirements in terms of delivery timings and an integrated ecological strategy to maximise benefits.	The Applicant is in regular contact with HS2 to co-ordinate provision of HS2's mitigation proposals within the lake. Tern rafts will be installed by HS2 prior to the commencement of construction. The islands will be signed over to LBH to manage long-term, and their management will be fully co-ordinated with the management of the landscaping and mitigation and enhancements proposed for HWSFAC.
4.6	Potential Regulation 25 request: Provide a more detailed cumulative assessment of the likely in-combination effects arising from the proposed development and HS2, as well as the in-combination effects of the proposed development on ecological receptors. Related to this, provide more evidence to demonstrate that the proposed landscaping will be an effective measure to mitigate the impacts of disturbance.	A more detailed cumulative assessment of the likely in-combination effects of the Proposed Development with HS2 has been included in the updated ES.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Clarification required: Confirm whether the combined loss of open water from the HS2 and proposed development will exceed the 5% trigger and provide a clear reference for this trigger and why it is appropriate.	The Proposed Development will result in no net loss of open water.
Chapter 8: Water Resources and Flood Risk		
5.3	Potential Regulation 25 request: Provide the baseline conditions for surface water and foul water, as well as identify any existing drainage infrastructure at the site.	<p>Further information on the existing (baseline) conditions for surface water and foul water provided in the baseline section of the ES chapter.</p> <p>Foul water: There are no operational private foul water/sewerage facilities at the Site. Sewer records provided by Thames Water (Appendix G to the FRA) indicate that there is no public foul sewerage infrastructure on the main part of the Site. The only public sewerage infrastructure located within the Site is a 300 mm diameter public foul sewer located that runs on a north-south alignment to the east of the Grand Union Canal. The public sewer crosses the discrete land parcel located to the north of the Mayling Transport facility off Broadwater Lane (i.e. the east parcel), and to the east of the residential development of St Mary's Road/St Mary's Close.</p> <p>Surface water: There is no known private drainage infrastructure within the Site. Sewer records provided by Thames Water (Appendix G to the FRA</p>



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
		report) indicate that there is no public surface water sewerage infrastructure within the Site. Direct rainfall currently infiltrates into existing ground where the ground is permeable or, in the case of existing (legacy) impermeable surfaces, sheds off the surfaces onto the nearest permeable surfaces. Environment Agency mapping of surface water runoff (Figure 7 of the FRA) confirms that there are no overland flow pathways across the Site.
	Clarification required: Clarify why Korda Lake and Harefield Moor Lake are not specifically identified as receptors in ES Volume 1, Chapter 8, paragraph 8.4.25.	Korda Lake and Harefield Moor Lake, located to the south of Broadwater Lake, form units within the wider Mid-Colne Valley SSSI and have specifically identified as receptors in the updated Chapter 8: Water Resources and Flood Risk ES chapter.
5.5	Potential Regulation 25 request: Provide further quantitative information to demonstrate that the proposed dredging activities, land reclamation and small island creation, will not result in an increase in flood risk either within the site or elsewhere.	Further information on the impact of the Proposed Development on lake levels has been provided in the updated Chapter 8: Water Resources and Flood Risk ES chapter.
Chapter 9: Ground Conditions and Contamination		
6.3	Potential Regulation 25 request: Provide the updated Phase II geo-environmental	An updated human health and ground gas risk assessment taking into consideration the known baseline conditions and submitted proposed



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	interpretative report, including the updated human health and ground gas risk assessments, to ensure a robust and comprehensive risk assessment has been undertaken for the site, taking into consideration the known baseline conditions and submitted proposed development design.	development design is provided in included in paragraphs 9.6. to 9.6.36 and 9.7.20 to 9.7.26 of Chapter 9: Ground Contamination.
6.4	Potential Regulation 25 request: The ground gas assessment should be updated to reflect the proposed development design submitted for planning. The assessment should take into account any likely significant effects associated with the unregistered landfill. This is required to adequately assess effects during the construction phase, due to potential health and safety implications.	An updated human health and ground gas risk assessment taking into consideration the known baseline conditions and submitted proposed development design is provided in in paragraphs 9.6.7 to 9.6.14 and 9.7.10 to 9.7.16 of Chapter 9: Ground Contamination. This has taken account of risks associated with the unregistered landfill.
6.8	Potential Regulation 25 request: The NTS should be updated to reflect any changes to the assessment following the submission of the updated geo-environmental interpretative report.	The NTS has been updated to reflect the revised proposals and changes to the assessment and is submitted alongside the updated ES.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
Chapter 10: Landscape and Visual Impact Assessment		
7.2	Potential Regulation 25 request: Provide an assessment of the impact on Green Belt and the associated loss of openness.	An assessment of the impact of the Proposed Development on the Green Belt is provided in the Planning Statement. As Green Belt is a planning, rather than environmental designation, further assessment is not considered necessary in the ES under the EIA Regulations.
7.3	Clarification required: Clarify how the landscape and visual receptors taken for further assessment have been determined.	In light of the revised scheme an updated ZTV has been undertaken to determine if there are any new receptors. The justification for the landscape and visual receptors taken for further assessment have been clarified in the updated Chapter 10: Landscape and Visual Impact Assessment.
	Potential Regulation 25 request: Provide the value and susceptibility of each visual receptor and viewpoint to justify their sensitivity.	The value and susceptibility of each visual receptor and viewpoint to justify their sensitivity has been provided in the updated Chapter 10: Landscape and Visual Impact Assessment (Table 10.15).
	Clarification required: Provide a key on the LCA figures contained at ES Volume II, Appendix 10.1.	A key has been provided on all LCA figures in the updated Chapter 10: Landscape and Visual Impact Assessment (Appendix 10.3).
7.4	Clarification required: Clarify how the visualisations comply with the LI TGN 06/19 Visual Representation of the proposed development.	The visualisations have been updated to assess the revised scheme. The Applicant has ensured that visualisations comply with the LI TGN 06/19 Visual Representation.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	Clarification required: Provide the baseline scenario for the visual receptors and their associated value on which the assessment has been based.	The baseline scenario for the visual receptors and their associated value have been provided in the updated Chapter 10: Landscape and Visual Impact Assessment (Section 10.4).
	Clarification required: Clarify the value of each landscape receptors with reference to the criteria given in the methodology.	The assessed value of each landscape receptor has been clarified in the updated Chapter 10: Landscape and Visual Impact Assessment (Table 10.14).
	Clarification required: Clarify the specific effects of the proposed development for each identified landscape receptors to justify the magnitude with reference to scale, geographic extent, duration, and reversibility.	The specific effects of the Proposed Development for each identified landscape receptors have been provided in the updated ES with reference to scale, geographic extent, duration, and reversibility (Section 10.6).
7.6	Potential Regulation 25 request: Provide an assessment of the cumulative landscape impacts and confirm the combined effect of the cumulative schemes in the cumulative visual assessment.	An assessment of the cumulative landscape and updated cumulative assessment of visual impacts have been provided in the updated Chapter 10: Landscape and Visual Impact Assessment (Section 10.7)
7.7	Clarification required: Provide greater rationale for the levels of significance to	The assessment of significance has been reviewed and expanded in the updated Chapter 10: Landscape and Visual Impact Assessment.



Note continued

Chapter/ Para No.	Issues Raised in Interim Review Report for 2023 ES	Applicant Response
	justify how some receptors with the same sensitivity and levels of magnitude have been assessed as having different levels of significance.	
	Clarification required: Clarify how the landscape and visual effects would change over time with reference to the identified assessment scenarios.	The updated ES clarifies how the landscape and visual effects would change over time (i.e. Year 1 and 15) for the completed Proposed Development.
7.8	Potential Regulation 25 request: The NTS should be updated to reflect any changes to the assessment following the submission of the updated information.	The NTS has been updated and submitted alongside the updated Chapter 10: Landscape and Visual Impact Assessment.