



Appendix 4.1

ALTERNATIVE SITE ASSESSMENT

Alternative Site Assessment Hillingdon Outdoor Activity Centre



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1. Introduction

Background

- 1.1 The London Borough of Hillingdon (LBH) (Capital Works Department) (the 'Applicant') have prepared this document to carry out an appraisal of suitable sites to accommodate the re-location of the former Hillingdon Outdoor Activity Centre (HOAC).
- 1.2 The Alternative Sites Assessment (ASA) assesses the alternative sites that have been considered in selecting the proposed future HOAC to which the application for Development relates. The purpose of this document is to consider whether the Site proposed for the HOAC is the most suitable, or whether alternative sites which could meet the needs for an outdoor water sports facility encompassing all uses that HOAC has previously provided. This ASA establishes the area in which it is appropriate to search for an alternative site, sets out the search criteria to assess potential sites and assesses the suitability of alternative sites.
- 1.3 The former HOAC was a popular community asset, located at Dews Lane, UB9 6JN. This is on the direct route of High Speed Two (HS2) Phase 1, the new high speed rail line connecting London, Birmingham and Crewe. The High-Speed Rail (London – West Midlands) Act 2017¹ "the HS2 Act" includes a requirement for HS2 to fund relocation of the HOAC to an alternative site which is suitable for their needs. The responsibility for finding an alternative site falls with the Applicant who have been unsuccessful in finding a suitable replacement site to date.

Purpose of Report

- 1.4 Paragraph 180 of the NPPF states (*inter alia*):

"180. When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (**through locating on an alternative site with less harmful impacts**), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest.*

- 1.5 The ASA is a critical assessment to determine if the proposed location for the new HOAC is the most appropriate and there are no alternative sites which meet these criteria.
- 1.6 It is not, however, the purpose of this ASA to seek to justify the detailed suitability of the development in its own right. The suitability of the proposed development at Broadwater Lake from a planning and

¹ HM Government. High Speed Rail (London - West Midlands) Act 2017 (c. 7).

environmental perspective is assessed in detail within the Planning Statement, Environmental Statement and Design and Access Statement which accompany the planning application. Further information on the alternative layouts, lake works, ecological mitigation of the new HOAC at Broadwater Lake is provided within the Environmental Statement (in accordance with the EIA Regulations). In addition, further information on the design evolution of the Development is provided in the Design and Access Statement.

- 1.7 In 2015, HS2 prepared a HOAC Lake Options Report² (the 'HS2 Report'), presented at **Appendix 1**, which provides an appraisal of potential new locations for HOAC. The HS2 Report identified a list of appropriate lakes for delivery of the Development and appraised them against a set of recreational criteria required to meet the needs of the previous HOAC users. Due to the passing of time since the HS2 Lake Options Report was prepared, the potential alternative sites were revisited, and evidence collected to ensure that all appropriate alternative sites were considered.

Replacement Development

- 1.8 A water sports facility and outdoor activity centre is a large recreation centre providing leisure activities within the natural setting of a lakeside environment. The previous HOAC was a registered Youth Educational Charity providing outdoor and environmental education for the whole community but with priority given to young people and those who are disadvantaged or disabled. Within the previous location at Dews Lane, HOAC had more than 40,000 visitors per year, of which the majority were local groups such as schools, colleges, scouts and guides. The centre provided a large range of land and water-based activities.
- 1.9 As a replacement waterside activities centre, the new HOAC (the 'Development') will focus on the following activities, all of which were provided by the former HOAC:
- Sailing;
 - Windsurfing;
 - Raft building;
 - Paddle boarding;
 - Rowing;
 - Indoor fencing;
 - Outdoor archery range;
 - Non-motorised peddle karting circuit;
 - Activity shelters for outdoor team building activities;
 - Bird watching;
 - Big swing and zip-wire;
 - Camping;
 - Orchard and foraging; and
 - Man-made caving system.

² HS2, 2015. HOAC Lake Options Report. Document Number: C252-ETM-EV-REP-020-0000075 P04

- 1.10 The Development will deliver buildings for activity centres, boat and equipment storage as well as associated car parking.
- 1.11 There are a number of sites in the local area with access to a lake and therefore a comparative analysis of each of the sites has been undertaken which considers factors such as size, accessibility, water quality, availability and proximity to public transport.
- 1.12 Detailed planning permission is sought for the construction of buildings and structures to accommodate sailing/rowing facilities and outdoor activities centres adjacent to a lake, including additional car parking, external boat storage and access.

Overview of Report Content

- 1.13 This Alternative Sites Assessment report is structured as follows:

- Introduction;
- Assessment Approach;
- Stage 1 – Search Area;
- Stage 2 – Long List of Sites;
- Stage 3 – Short List of Sites; and
- Summary and Conclusions.

- 1.14 This ASA is accompanied by Appendix 1: HS2 Lake Options Appraisal (2015).

2. Assessment Approach

Overview

- 2.1 The first stage in carrying out the alternative sites assessment involved establishing the Search Area for sites that are suitable available and deliverable. In broad terms, the site search area is a geographic area within a proximity to the previous HOAC and therefore in which a need exists for a replacement facility. The definition of the HOAC site search area has been informed by a number of factors, including meeting the recognised need, local environmental, infrastructure and other constraints and the proximity to existing and proposed facilities.
- 2.2 Following the review of the Study Area, a Long List of Sites is identified by visual mapping tools. This is then assessed against a set of a set of defined minimum parameters necessary for the HOAC to operate. A more detailed analysis of these sites is then undertaken against further criteria, resulting in a final short list.
- 2.3 A comparative analysis was then carried out of the short-listed sites to identify the site that is most suitable, considering factors such as the physical requirements for the HOAC, as well as other factors such as ecological, planning and commercial sensitivities.

Recreational Criteria

- 2.4 Due to the nature of the Proposed Development, there are specific criteria in order for the activities taught at the centre to be carried out including, but not limited, to sailing and rowing. In addition, the HOAC must as a minimum have a like-for-like comparison with the previous HOAC at Dews Lane. The sites therefore need to be filtered to meet the following criteria (i.e. the 'Recreational Criteria'):
 - **Lake and Land Surface Area** – surface area of at least 18 hectares (45 acres) of lake and a 2 hectare (5 acre) land area. These relate to the extents of the previous HOAC facility to ensure at least a like-for-like size is provided. An area of the surface area of the lake would need to be approximately 225 metres by 250 metres to allow for the running of the waterside activities. A minimum length of 750 metres would be required for rowing activities. The positioning of each group in relation to each other would be influenced by factors such as water depth, wind and ability of the groups. Safety boats for each activity will require unimpeded access from the point of any activity to the Activity Centre building;
 - **Accessibility** - accessibility to the existing strategic road network and highways. Access is to be made via tarmac roads for trailers, vehicles and boats. Due to the nature of the future site users which will include schoolchildren and disabled users, the access roads need to cater for emergency vehicles, school coaches and disabled minibuses. Narrow, single track lanes with no opportunity for upgrades are not acceptable;
 - **Site Availability** - a site's potential availability is a relevant consideration. Sites with active uses and sites with granted outline or full planning permission as well as those with applications pending consideration are deemed unavailable. Also, a site which is not being promoted for development but is in multiple and fragmented ownership is less likely to be a viable alternative;
 - **Depth** - the minimum depth requirement is 1.5 metres with an average depth of 4 metres. This is necessary to ensure that dinghies can safely capsize without a mast or equipment getting

caught on an obstacle on the lake floor, as well as preventing algae blooms which create obstructions for sailing and other water-based activities;

- **Accessibility of Lake from Level Landform** – this is required to provide multiple launch and recovery points. The Site needs to be of a size to accommodate at least three pontoons so that sailing boats, safety boats and other craft to manoeuvre, ingress and egress the water simultaneously and safely. Accessibility could be hindered by lack of available space, height changes from the water to landform or existing public uses conflicting with the HOAC future activities;
- **Water Quality** – the water quality the lake must be of good quality with clean water and reliable water levels. No natural or man-made contamination to the lake which could cause a risk to human health;
- **Restrictions** – there must be no restrictions for training and non-powered recreation. Ecological sensitivities could limit certain activities;
- **Site Security / Exclusive Access** – there must be the ability to make the site secure and ensure exclusive use to meet statutory requirements for future users. The future HOAC must maintain the same levels of security as a school due to the users. The statutory requirements include the Department for Education Statutory Guidance on Keeping Children Safe in Education³ for children under the age of 18 and NHS Safeguarding Standards for vulnerable young adults;
- **Access to Wider Amenities** – access to woodlands, fields of a level campsite and a grassed area for 40+ people; and
- **Wind Conditions** – good wind conditions. Extensive, dense tree lined lakes of a smaller size creates poor wind conditions for wind.

2.5 Any sites that would be prohibitively constrained to the extent that they are fundamentally unsuitable for the development are discounted. The sites that pass through the first filter are then short listed and evaluated/weighed against one another to determine which site is the most appropriate.

Stage 1 – Defining the Search Area

- 2.6 The site Search Area is a geographic area within which is appropriate to search for sites to meet the need for the delivery of the new HOAC. The Search Area was defined by considering the proximity to the previous HOAC facility as well as the preference for the Site to be located within the LBH. As the previous HOAC served these existing nearby communities, including young, disabled and disadvantaged people who may find it difficult to travel to an alternative location further away, the proximity to the previous location is an important consideration to ensure the continuation of services to these communities.
- 2.7 The Site being located within the LBH is not seen as an absolute requirement should a more appropriate alternative site be present outside the LBH boundaries, but it is a consideration given that LBH are responsible for the delivery of the Proposed Development.

³ <https://www.gov.uk/government/publications/keeping-children-safe-in-education--2>

Stage 2 – Identifying and Filtering the Long List of Sites

- 2.8 Once the Search Area was agreed, a search of potential alternative sites within LBH was carried out using visual mapping and a desk-based exercise. The following sources were used to identify the Long List of Sites:
- Existing planning permissions;
 - Desk top review of undocumented sites cross-referenced with the Local Plan Proposals Map and site allocations to avoid identifying sites which may have been identified for alternative uses;
 - Review of the Minerals and Waste Plan;
 - Schedule of available land;
 - Calls for Sites data; and
 - Commercial data.
- 2.9 When filtering the Long List of Sites, consideration of the physical items of the Recreational Criteria was made (Lake and Land Surface Area; Accessibility of the Site; and Site Availability). These are the more basic criteria which can be assessed from desk-based and GIS mapping of the sites.
- 2.10 Another consideration when filtering the Long List of Sites is the proximity of the lakes to the planned HS2 development. This development involves construction of the Colne Valley viaduct, a railway bridge stretching more than 3.4 kilometres across the lakes up to the M25. The viaduct will cross the south-west corner of the Mid-Colne Valley SSSI as shown in Figures 2.1-2.2. Construction of the viaduct commenced in 2021 and will be approximately 10 metres above the surface of the lakes, River Colne and Grand Union Canal and will have a series of arches up to 80 metres in length. This will have a significant effect on the disturbance during the extensive construction programme as well as the function of the site for the future HOAC during the operation.

Figure 3.1: HS2 Indicative Proposals

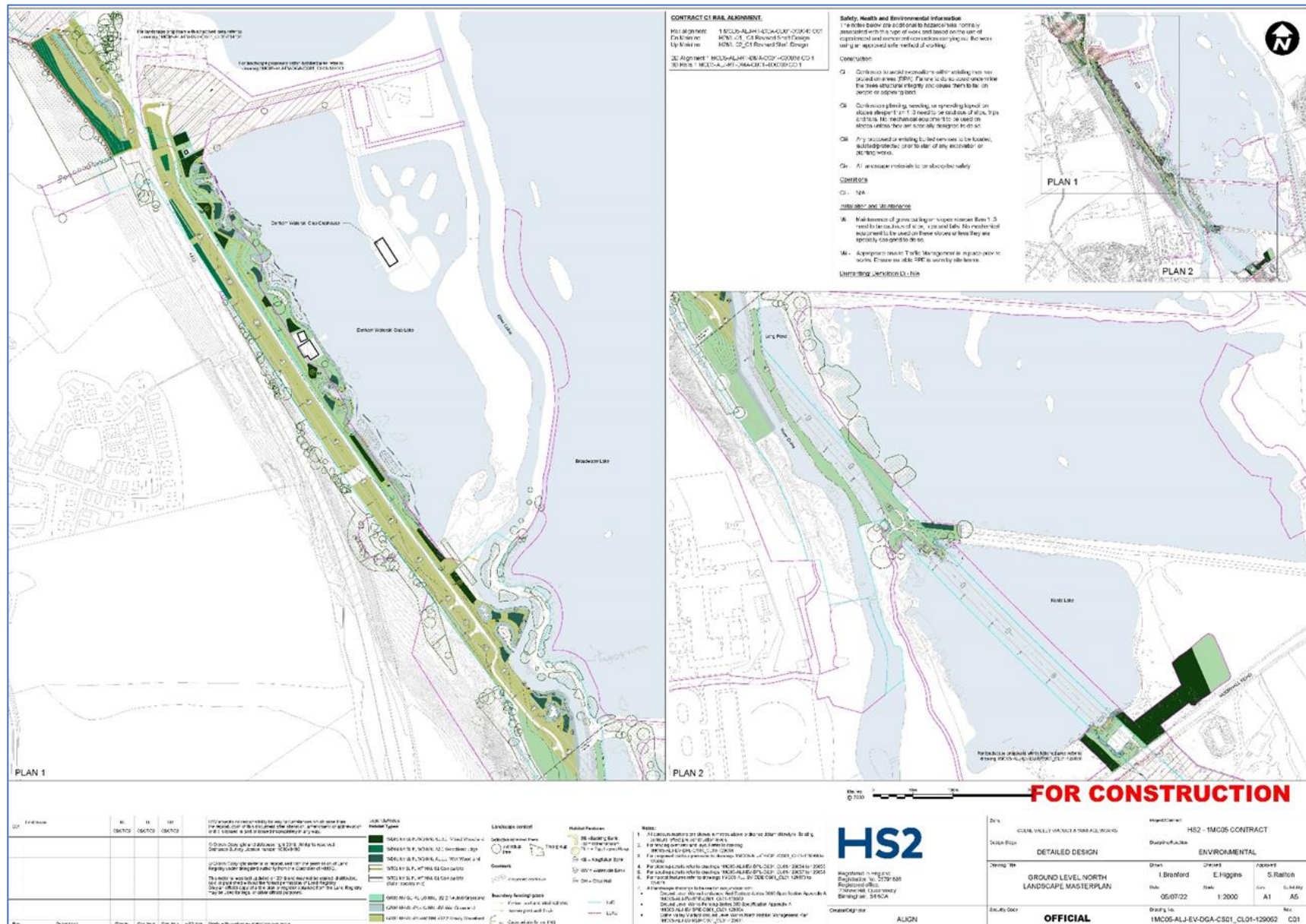
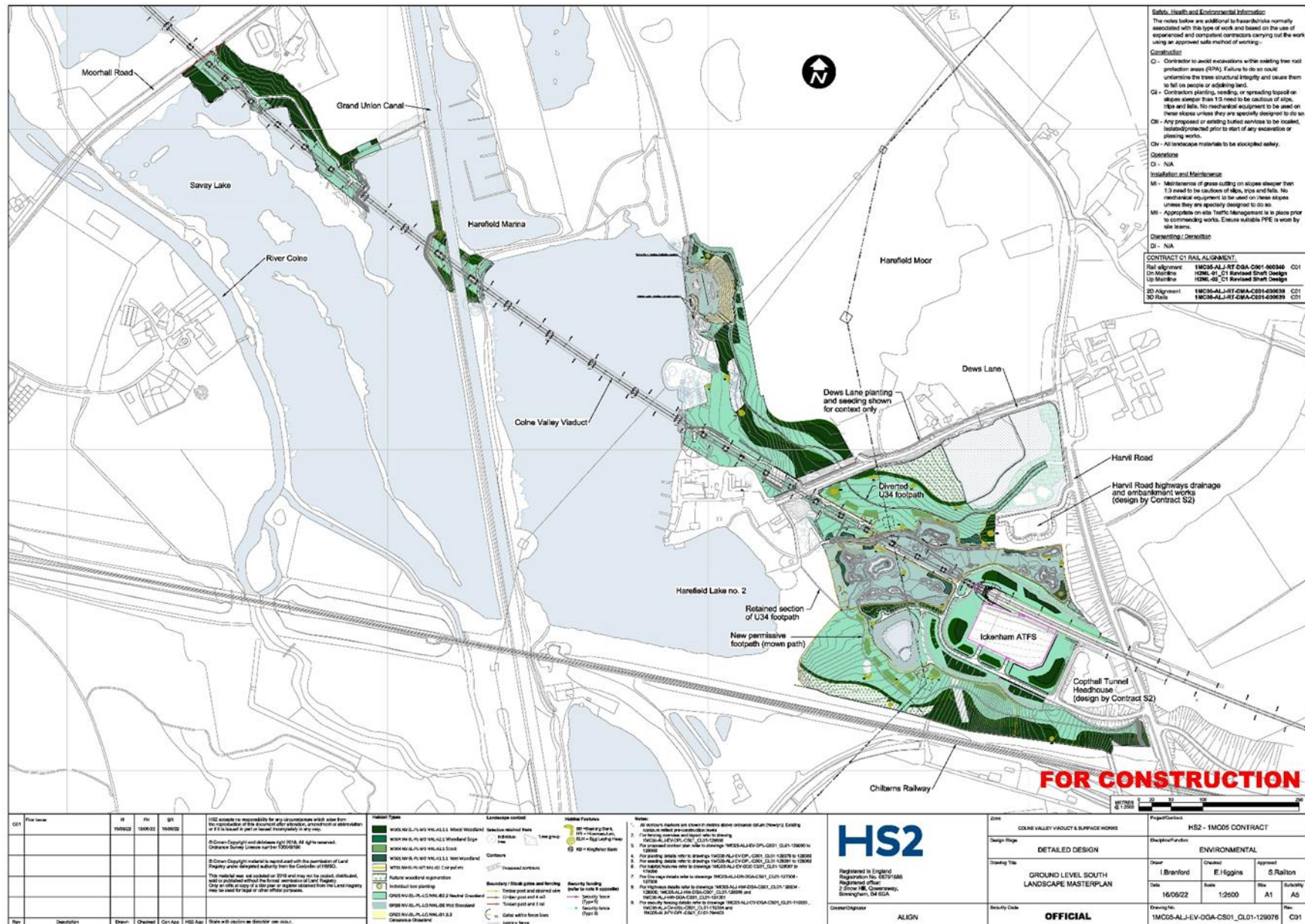


Figure 3.2: HS2 Indicative Proposals



Stage 3 – Short List of Sites

Short List Assessment

2.11 Where information is available, the Short List Assessment considers the sites in detail with reference to:

- Recreational requirements;
- Ecological sensitivities;
- Lake morphology;
- Existing and adjacent sensitive human receptors;
- Availability of site;
- Topography;
- Accessibility;
- Water environment and flood risk;
- Land availability;
- Child safeguarding and security;
- Emergency vehicle access;
- Other environmental considerations such as: landscape and heritage designations; air quality and noise; and ground conditions and contamination).

2.12 Each shortlisted site is reviewed to determine if it meets the required Recreational Criteria of the HOAC by using a Red, Amber Green (RAG) matrix as presented in Table 2.1.

Table 2.1: Alternative Site Recreational Criteria RAG Matrix

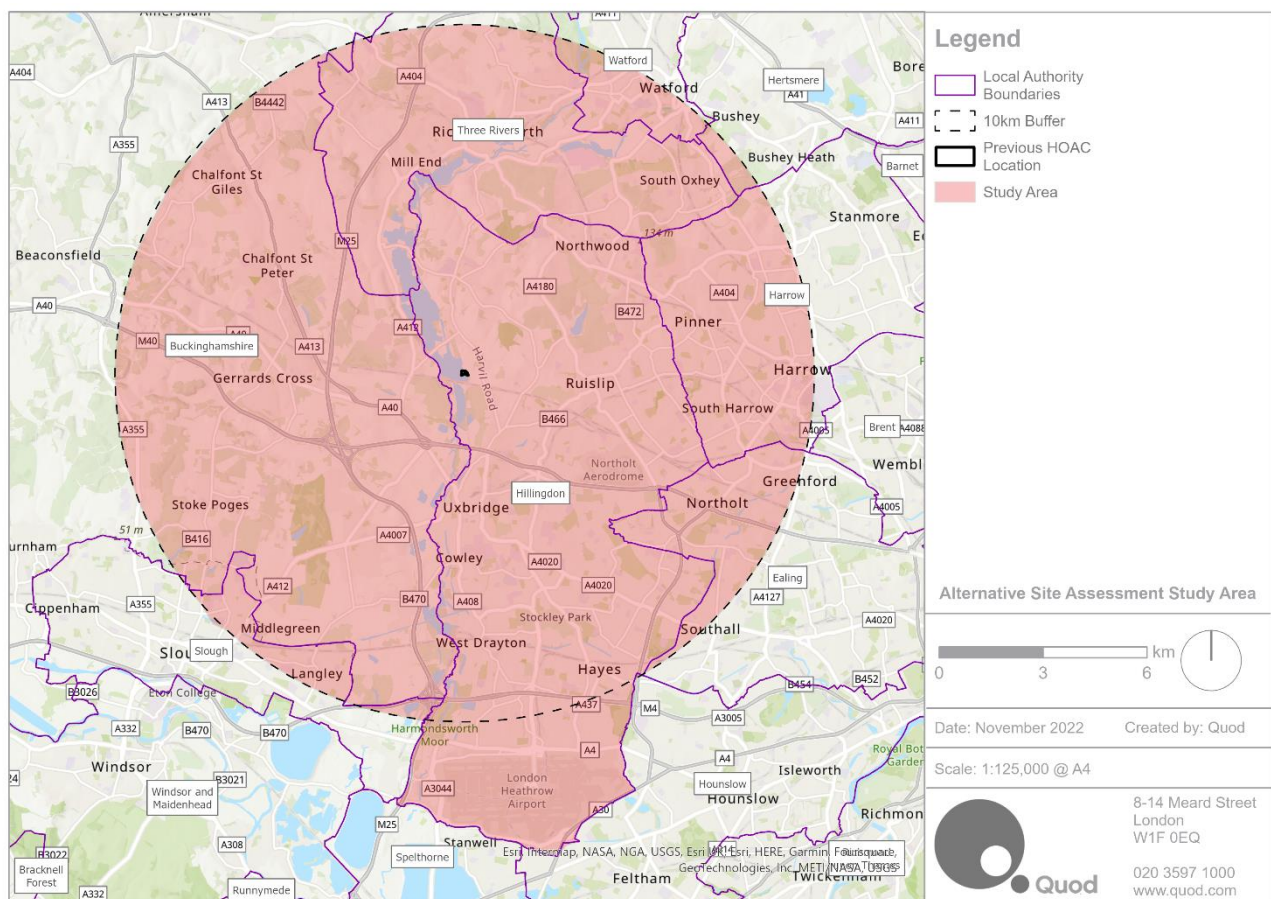
Requirement	Alternative Site	RAG Rating		
Lake Surface Area				
Land Surface Area				
Lake Depth				
Accessibility of Lake from Level Landform				
Water Quality / Contamination				
Recreational Restrictions				
Public Accessibility				
Site Security / Exclusive Access				
Access to Wider Amenities				
Site Availability				
Other Considerations				
Key: Green = Criteria met. Amber = Criteria partially met or could be met subject to upgrades / works. Red = Criteria not met.				

3. Stage 1 - Search Area

3.1 For the initial search for potential alternative sites, the new site must be in a location that meets the below criteria:

- Within an area that is within a reasonable distance to the previous HOAC. This has been defined as within a 10-kilometre radius to ensure the new HOAC is accessible to the communities that previously used HOAC. This also encompasses the majority of the lakes within the Colne Valley. It would be inappropriate to consider a search area which did not encompass a lake element as this is a fundamental use of the future HOAC;
- Within, or in close proximity, to the LBH. If the site is located outside of the LBH, this is not seen as an absolute requirement, but is preferable; and
- Within a location accessible to the strategic road network. Well connected to 'A' roads and reasonably accessible by public transport (no more than 2 kilometre walk from public transport).

Figure 4.1: Alternative Site Assessment Search Area



4. Stage 2 - Long List of Sites

4.1 Figure 4.1 presents the identified Long List of Sites within the Study Area which could potentially enable the HOAC. Table 4.1 provides context on these sites, sorted by distance to the previous HOAC. These sites will be assessed against the set of Recreational Criteria which will filter the Long List of Sites down to the Short List of Sites.

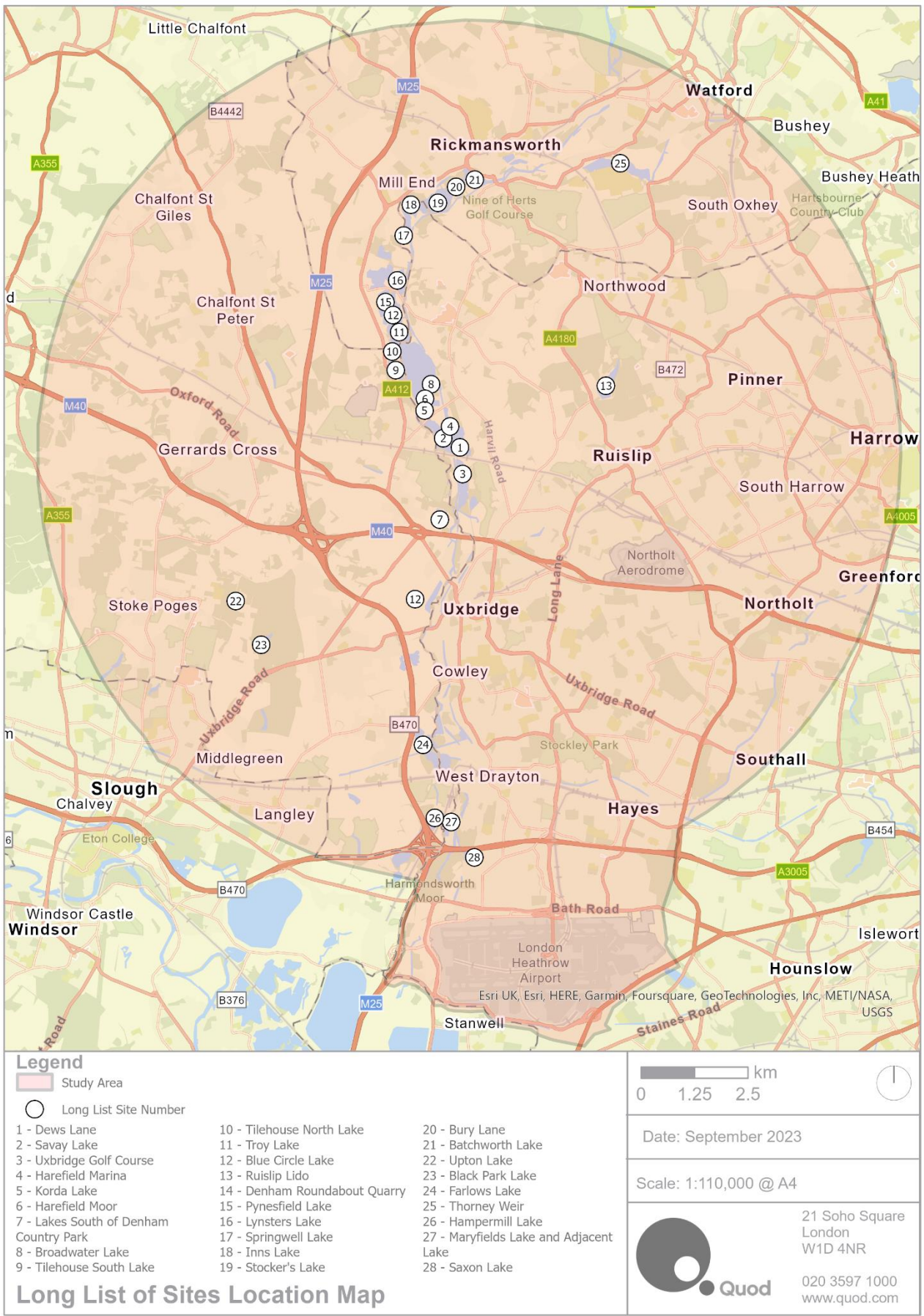
Table 4.1: Long List of Sites

Site No.	Site Name	Distance to Previous HOAC (km) ⁴	Local Planning Authority
1	Dews Lane - Previous HOAC Site* (also known as Harefield No.2)	0.00	London Borough of Hillingdon
2	Savay Lake	0.25	London Borough of Hillingdon
3	Uxbridge Golf Course** (also known as Harefield No.3)	0.38	London Borough of Hillingdon
4	Harefield Marina	0.65	London Borough of Hillingdon
5	Korda Lake	1.07	London Borough of Hillingdon
6	Harefield Moor	1.08	London Borough of Hillingdon
7	Lakes South of Denham Country Park	1.38	Buckinghamshire Council (South Bucks)
8	Broadwater Lake	1.49	London Borough of Hillingdon
9	Tilehouse South Lake	2.35	Buckinghamshire Council (South Bucks)
10	Tilehouse North Lake	2.73	Buckinghamshire Council (South Bucks) / Three Rivers District Council
11	Troy Lake	2.83	Three Rivers District Council
12	Blue Circle Lake	3.35	Three Rivers District Council
13	Ruislip Lido	3.60	London Borough of Hillingdon
14	Denham Roundabout Quarry	3.70	Buckinghamshire Council (South Bucks)
15	Pynesfield Lake	3.77	Three Rivers District Council
16	Lynsters Lake	3.80	Three Rivers District Council
17	Springwell Lake	4.92	London Borough of Hillingdon

⁴ Distance measured to nearest water-edge.

Site No.	Site Name	Distance to Previous HOAC (km) ⁴	Local Planning Authority
18	Inns Lake	5.10	London Borough of Hillingdon / Three Rivers District Council
19	Stocker's Lake	5.48	Three Rivers District Council
20	Bury Lake	5.77	Three Rivers District Council
21	Batchworth Lake	5.85	Three Rivers District Council
22	Upton Lake	6.20	Buckinghamshire Council (South Bucks)
23	Black Park Lake	6.50	Buckinghamshire Council (South Bucks)
24	Farlows Lake	6.68	Buckinghamshire Council (South Bucks)
25	Thorney Weir	8.57	Buckinghamshire Council (South Bucks)
26	Hampermill Lake	7.25	Three Rivers District Council
27	Maryfields Lake and Adjacent Lake	8.65	London Borough of Hillingdon / Buckinghamshire Council (South Bucks)
28	Saxon Lake	9.85	London Borough of Hillingdon
<p>*Referred to as Harefield No.2 in HS2 Report</p> <p>**Referred to as Harefield No.3 in HS2 Report</p>			

Figure 4.1: Location Map - Long List of Sites



Filtering the Long List of Sites

4.2 From a desk-based review of the 28 identified sites within the Long List, three were taken forward shortlisted for further assessment. A summary of the justification for filtering the Long List of Sites is presented in Table 4.2.

Table 4.2: Filtering the Long List of Sites

Site No.	Site Name	Justification for Scoping out of Short List Assessment
1	Dews Lane (Previous HOAC Site)	The previous HOAC site is unavailable for a number of reasons. The Site was the subject of a Compulsory Purchase Order by HS2. The route for HS2 will see a viaduct cut through the existing Site and lake, preventing HOAC from continuing to operate in this location. The construction of the viaduct began in 2021 with full completion expected in May 2025. The presence of the viaduct requires a safety buffer zone either side of the railway. The remaining portions of the lake would be too small and inadequate for future HOAC activities to be conducted. In addition, once the viaduct is complete and operational, the noise and vibration from the high-speed trains would result in an unsafe environment for future users as there would be difficulty hearing and following instructions, creating a safety risk, particularly for children.
2	Savay Lake	The Site is compromised by future HS2 viaduct to be constructed above the lake. This lake would be severely impacted during the extensive construction stage which commenced in 2021 and is anticipated to be completed by Q4 2025. The location would be beneath the new proposed HS2 viaduct which would impact the function of the future HOAC.
3	Uxbridge Golf Course	Uxbridge Golf Course and the adjacent lakes are owned by the LBH. Four lakes are present which are fragmented and split by landforms. Existing uses of the Uxbridge Golf Course Site include the public 12-hole golf course owned and managed by the LBH which has been present since the 1940s, as well as use of the lakes by the

Site No.	Site Name	Justification for Scoping out of Short List Assessment
		<p>Uxbridge Rovers and Angling Conservation Society.</p> <p>There are two access points to the centre of the lakes by Harvil Road and Skip Lane. The existing access points are both heavily constrained in width and the drive is in need of extensive repairs.</p> <p>To the South of the lakes is Fray's River, a semi-canalised short river that branches off the River Colne at Uxbridge Moor and re-joins it in West Drayton. The wetlands surrounding the Fray's River are protected by Sites of Specific Scientific Interest (SSSI) status. Two portions the north east and south east of the Uxbridge Golf Course site are designated as the Harefield Place Nature Reserve which is protected by the Hillingdon Natural History Society. These two areas now also form part of the Frays Valley Local Nature Reserve. There are two trails contained within these woodland areas which would require careful consideration and protection.</p> <p>In 2019, Uxbridge Golf Course was explored as an option for the future HOAC. Technical work to RIBA Stage 1 was undertaken to explore the potential options for redevelopment. Due to the fragmented nature of the lakes and the required lake surface area for the future HOAC, the only way this site could meet future users would be to remove the landforms between the four lakes to merge into one lake. This would require excavation of approximately 21,577m² of land which would result in significant disturbance to existing ecological features. A hydrological survey was undertaken which confirmed that the four separate lakes have varying lake depths (from 1.85m to 3.34m). Further to the land excavation, dredging would be required to ensure consistent water levels across the lake beds. A cost analysis was undertaken for this Site which determined this site as unviable due to the significant amount of excavation, dredging and site access upgrades that would be required to meet the future uses of the Site.</p>

Site No.	Site Name	Justification for Scoping out of Short List Assessment
		During construction stage, there would be difficulty for construction vehicles to enter and exit the site due to the constrained lanes. During operation, the access road would be unsuitable for coaches.
4	Harefield Marina	<p>Lake area not large enough to facilitate HOAC activities (maximum length is 475m in length, 165m in width).</p> <p>Existing use as a commercial marina which houses 200 non-residential moorings for cruisers and narrowboats, making the site unavailable to HOAC.</p> <p>Marina also connects into the Grand Union Canal.</p>
5	Korda Lake	<p>Site compromised by future HS2 viaduct to be constructed above the lake. This lake would be severely impacted during the extensive construction stage which commenced in 2021 and is anticipated to be completed by Q4 2025.</p> <p>The location would be beneath the new proposed HS2 viaduct which would impact the function of the future HOAC.</p>
6	Harefield Moor	Lake surface area not large enough to facilitate HOAC activities.
7	Lakes South of Denham Country Park	Lake surface area not large enough to facilitate HOAC activities.
8	Broadwater Lake	Shortlisted for further assessment.
9	Tilehouse South Lake	<p>Site compromised by future HS2 viaduct to be constructed above the lake. This lake would be severely impacted during the extensive construction stage which commenced in 2021 and is anticipated to be completed by Q4 2025.</p> <p>The location would be beneath the new proposed HS2 viaduct which would impact the function of the future HOAC.</p> <p>Existing uses of the site include the Denham Waterski Club which is used consistently in the summer months.</p> <p>Not large enough to facilitate HOAC activities (two lakes of 8 hectares and 5 hectares in size)</p>

Site No.	Site Name	Justification for Scoping out of Short List Assessment
		Dense woodland surrounds of the southern lake creates reduced windy conditions required for sailing activities
10	Tilehouse North Lake	Site compromised by future HS2 viaduct to be constructed above the lake. This lake would be severely impacted during the extensive construction stage. The location would be beneath the new proposed HS2 viaduct which would impact the function of the future HOAC.
11	Troy Lake	Shortlisted for further assessment
12	Blue Circle Lake	Lake surface area not large enough to facilitate HOAC activities (11.5 hectares / 28.5 acres). The widest length of the lake is 415 metres, which does not meet the criteria for rowing activities. The lake lies outside the LBH boundary. There is a heavy tree cover of willow and alder which could disrupt the wind conditions required for sailing. There are existing users of this lake by Rickmansworth Conservative Club and District Angling Society which could disrupt interface between land based and water based recreation.
13	Ruislip Lido	Shortlisted for further assessment
14	Denham Roundabout Quarry*	It is acknowledged that Denham Quarry was subject to a planning application for the restoration and relocation of HOAC (ref. 16/01217/CM). This application was consented in 2016 and an ES accompanied the application. However, since consent was achieved, the current owners have advised they are not willing to sell and evacuate the premises, and as such the Denham Roundabout Quarry is not available to deliver HOAC. Further, access to the site off Oxford Road was not able to be secured due to ownership issues. In addition to the ownership and access constraints, the lakes within the Denham Quarry Roundabout site have since been infilled and therefore would not meet any of the criteria required to deliver HOAC.
15	Pynesfield Lake	While this lake has an overall area of just under 20 hectares (49 acres), the lake is bisected by a

Site No.	Site Name	Justification for Scoping out of Short List Assessment
		<p>spit of land from the north east of the lake into the central portion of the lake. Along this spit is a footpath linking West Hyde and the Coy Carp public house. It would therefore not be possible to incorporate the necessary security measures required for safeguarding of children using the facility and make it difficult to meet the recreational criteria to allow simultaneous water-based activities as required by HOAC. The widest length of the lake is approximately 390 metres, which does not meet the requirement for rowing activities.</p> <p>The shores are heavily fished by Rickmansworth Conservative Club and District Angling Society. The lake is notably shallow according to site visits undertaken as a part of the HS2 Lake Options Study.</p>
16	Lynsters Lake	<p>While the overall body of the lake is large (23 hectares / 56 acres), it is subdivided into three subsidiary lakes by extensive spits and bunds. This lake would therefore not meet the recreational criteria to allow water-based activities as required by HOAC.</p> <p>Shores are heavily fished by local angling groups. Large areas of land are present to the north which could be utilised for outdoor recreational activities / camping, but access to them appears problematic via Lynsters Farm and around the back of the Maple Lodge Sewage Treatment Works.</p>
17	Springwell Lake	<p>The lake is too narrow to accommodate the sailing and rowing area (the widest extent is 195 m across).</p> <p>Other sensitivities include Stockers Lake Local Nature Reserve lying immediately to the north. Existing uses include fishing by local angling groups.</p>
18	Inns Lake	<p>Lake surface area not large enough to facilitate HOAC activities (9 hectares / 9.1 acres).</p> <p>The lake is tree-lined which means a significant number of trees would have to be removed to enable access to land from the water.</p>

Site No.	Site Name	Justification for Scoping out of Short List Assessment
19	Stocker's Lake	<p>The lake meets the Surface Area criteria (28 hectares / 69 acres), but it is characterised by many islands, spits, and shallow waters which would prevent simultaneous water-based activities as required by HOAC.</p> <p>Access is provided around the eastern end of the lake via footpaths from Stocker's Farm to the south and the A412 to the north is problematic especially as these involve crossings over the River Colne to the north and the canal to the south.</p> <p>This Lake is a Local Nature Reserve managed by the Herts and Middlesex Wildlife Trust along with volunteers from Friends of Stocker's Lake. It is perceived as being as important for birdlife as the Broadwater Lakes SSSI complex.</p>
20	Bury Lake	<p>This Lake not large enough to facilitate HOAC activities (9 hectares).</p> <p>Bury Lake is part of the Rickmansworth Aquadrome Local Nature Reserve.</p> <p>The lake is already used by a number of recreational groups and capacity to the future HOAC would be limited and / or conflict the existing users. The existing users include: Bury Lake Young Marines, The Three Rivers Yachting Club, Ricky Windsurfing Club, Rickmansworth Water Ski Club, Nomad Kayak Club and Uxbridge Rovers Angling and Conservation Society.</p>
21	Batchworth Lake	Lake surface area not large enough to facilitate HOAC activities.
22	Upton Lake	Lake surface area not large enough to facilitate HOAC activities.
23	Black Park Lake	Lake surface area not large enough to facilitate HOAC activities.
24	Farlows Lake	<p>Farlows Lake is fragmented into three separate water bodies, with the largest of an irregular shape which does not enable the different similar activities required by future HOAC.</p> <p>Existing use as a carp fishery by Farlows Lake Premier Fishing Complex.</p>

Site No.	Site Name	Justification for Scoping out of Short List Assessment
25	Thorney Weir	Lake is not large enough to facilitate HOAC activities (north-south distance is 300m).
26	Hampermill Lake	Lake surface area not large enough to facilitate HOAC activities.
27	Mayfields Lake and Adjacent Lake	Lake is not large enough to facilitate HOAC activities (longest length of water is 250m).
28	Saxon Lake	Not large enough to facilitate HOAC activities (longest length of water within the lake is 250m).

4.3 As a result of the above long list filtering, three sites have been shortlisted for further consideration as alternative sites: Broadwater Lake (Site 8), Troy Lake (Site 11), and Ruislip Lido (Site 13). All Recreational Criteria are of relevance to the Short List Assessment.

5. Stage 3 - Short List of Sites

Broadwater Lake (Long List Site 8)

Site Location and Description

- 5.1 Broadwater Lake is located at Moorhall Road, Harefield, Uxbridge UB9 6PE.
- 5.2 Broadwater Lake is located in the LBH, approximately 5 kilometres north of Uxbridge town, within the Colne Valley Regional Park. South Harefield village lies to the east of the Site, immediately beyond the Grand Union Canal. The Site extends to approximately 80 hectares (ha). Broadwater Lake is also within the Metropolitan Green Belt.
- 5.3 This site comprises Broadwater Lake (approximately 62 ha), a large body of water with a number of small islands bordered by trees and scrub. The lake was created after the site was used as a quarry for sand and gravel extraction between the 1960s and the 1980s. Broadwater Lake is the largest of four lakes within the Mid Colne Valley Site of Special Scientific Interest (SSSI).
- 5.4 The south of the lake contains a land peninsula ('the peninsula') extending to approximately 5.9 hectares (14 acres), which was formerly utilised as a gravel washing / processing plant with a silt lagoon and a tip for inert quarry wastes. Since the quarry was decommissioned the silt lagoon, peninsula edges and small areas of remaining natural ground have colonised with native broadleaf woodland comprised of pioneer and wetland species (alder, silver birch, willows).
- 5.5 The southernmost part of the Broadwater Lake site is bound by the Moorhall Road carriageway to the east and west and The River Garden pub to the south. The east parcel is bound by the Grand Union Canal to the west, a logistics site to the south and residential properties in Harefield to the east. The southern parcel is bound by Moorhall Road to the south, Harefield Moor Lake to the north and Korda Lake to the west; the HS2 construction site is also located to the west.

Figure 6.1: Broadwater Lake Site Location Plan



Existing Use

- 5.6 Broadwater Sailing Club (BSC) currently operate from a club house and facilities located at the northern end of the lake, accommodating approximately 180 members. BSC holds club sailing Wednesday and Sunday, with sailing access every day for members. Wednesday sailing is in the evening in summer and mornings in winter. BSC hold sailing regattas on Sundays throughout the year, and an additional six are held on various Saturdays. BSC also use the lake for Wednesday morning and evening events from May to August and on ad hoc days, one hour after dawn and one hour before dusk, throughout the year.
- 5.7 The lake is also used for angling by the Gerrards Cross and Uxbridge District Angling Society and British Carp Study Group. The west of Broadwater Lake is managed by Herts and Middlesex Wildlife Trust.
- 5.8 HS2 own the western portion of the lake and have no immediate plans for leasing the angling rights.

Environmental Considerations

Ecology

- 5.9 The entire site forms a component part of the Mid Colne Valley SSSI, designated for breeding and over-wintering water birds. A number of nationally and regionally important statutory designated wildlife sites are present within 2km. The site is also designated as a Site of Importance for Nature Conservation (SINC) of Metropolitan importance.
- 5.10 Priority habitat is present onsite and in the adjacent surrounds, comprising deciduous woodland. Parts of the woodland adjacent to the west of the Site are designated as Ancient Woodland.

Landscape, Built Heritage and Archaeology

- 5.11 The Broadwater Lake site is set within the landscape context of the Colne Valley Regional Park, which is a mosaic of farmland, woodland and water with 200 kilometres of rivers, canals and over 60 lakes. The entire Colne Valley was used for mineral extraction, chalk, clay, and brisk manufacturing in the early 20th Century, with the large areas which were excavated then landfilled.
- 5.12 The Broadwater Lake site is not located within or in the vicinity of any statutorily designated or locally (non-statutorily) designated views. It is adjacent to the Widewater Lock Conservation Area (CA) in the south-east and Black Jacks and Copper Mill Lock CA in the north-east. The Site is also 250 metres from the Harefield Village CA in the east. Broadwater Park Registered Park and Garden is located approximately 400 metres southwest of the Site boundary.
- 5.13 A number of listed buildings (Grade I – II) are located to the north and south of the Broadwater Lake site boundary, the closest being Widewater Lock Cottage (Grade II) adjacent to the south-east of the Site boundary on the access road and Denham Film Studios being less than 100 metres south west. There are two locally listed buildings within close proximity to the site boundary, Black Jack Cottage is adjacent to the north east of the site and Mayling Transport Yard is adjacent to the east of the site boundary across the Grand Union Canal.
- 5.14 The Broadwater Lake site is located adjacent to an Archaeological Priority Area (APA) in the east, which is designated within the LBH Local Plan.

Transport and Access

- 5.15 A single carriageway road named Boyer's Pit Road provides access from Moorhall Road to the south of the Broadwater Lake site. This access road is shared by the existing users of the lake (BSC and Gerrards Cross & Uxbridge District Angling Society) and adjacent uses including GRS Bagging, a construction material wholesaler, Harleyford Aggregates, a sand and gravel supplier, and a small number of residential properties located off the road. The road is also used by members of the public who use it as a footpath and for access to the canal.

Water Resources and Flood Risk

- 5.16 The majority of this site is in Flood Zone 2 (between 1 0.1 – 1% chance of flooding) and Flood Zone 3 (greater than 1% chance of annual flooding). This site is also located within a groundwater Source Protection Zone.

Air Quality

- 5.17 The Broadwater Lake site is not located within an Air Quality Management Area (AQMA), the closest is the Hillingdon AQMA which is approximately 1.2 kilometres to the south of the boundary. The AQMA was designated in 2003 for exceedances of the nitrogen dioxide annual mean.

Lake Characteristics

- 5.18 Broadwater Lake is bordered to the west and north by the River Colne (Main River) and the Grand Union Canal is located to the east. Other former gravel pits/sand pits are located immediately to the north and south, with a narrow terrestrial perimeter forming the lake/river shore and canal embankment. A larger area of land is located adjacent to the south east corner of the lake and is currently characterised by wet woodland, broadleaved woodland and standing water ('the peninsula').
- 5.19 Recent bathymetric surveys completed by Survey Solutions in 2021 show the average depth of the lake is over 2m in depth, with areas of shallower water and islands present.
- 5.20 Broadwater Lake is a surface water body (Lake) under the Water Framework Directive (WFD) reference GB30641907. It is located adjacent to the River Colne (Confluence with Chess to the River Thames) WFD reference GB106039023090 and the Grand Union Canal, a Canal under the WFD reference GB70610252. Broadwater Lake is associated with the Thames Basin River Basin District. The most recent data from the Environment Agency (EA) from 2019 shows that their overall WFD rating is Moderate, Chemical rating is Fail and Ecology rating is Moderate. The chemical failure rating is as a result of perfluorooctane Sulphonate (PFOS), and polybrominated diphenyl ethers (PBDE).

Water Quality

- 5.21 Recent water quality sampling (for microbial and certain water quality parameters relating to use for water sport activity) taken from the south east lake margins by GEA Ltd in 2022 show that the results were generally found to meet the EC Bathing Water Directive (76/160/EEC and 2006/7/EC), with the exception of the concentration of *Enterococci* within the sample collected from Location No 1, which was classified as 'Poor (fail)'. None of the samples were found to contain salmonella, and all six samples were found to meet the requirements of the EC Bathing Water Directive (76/160/EEC and 2006/7/EC), with the exception of the concentration of *Enterococci* within the sample collected from Location No 1, as mentioned above. All six samples were found to meet the World Health Organisation (WHO) guidance values with respect to blue-green algae (cyanobacteria). The concentration of *Clostridium perfringens*

recorded in one sample is considered to be elevated with respect to the adopted threshold for faecal coliforms, of 200 colony-forming units per 100ml.

- 5.22 The Environment Agency and the Department for Environment and Rural Affairs (DEFRA) Online Water Quality Archive indicates a sampling location within Broadwater Lake, at National Grid Reference (NGR): 504591, 189093. 6No. Samples were collected between 30th October 2019 until 26th April 2022, with 8No. Chemical determinants measured (colour, conductivity, alkalinity, phosphorus, chlorophyll, nitrogen, orthophosphate and nitrogen total oxidised).

Recreational Criteria Assessment

Table 5.2: Broadwater Lake Recreational Criteria Assessment

Requirement	Broadwater Lake Proposal	Criteria Met
Lake Surface Area	The lake surface area is approximately 62 hectares (156 acres).	
Land Surface Area	The peninsula provides significant land availability for on-site activities.	
Depth	Overall is of a depth suitable for HOAC activities. Localised dredging would be required in identified areas where bathymetric survey indicates shallower waters.	
Accessibility of Lake from Level Landform	The peninsula provides a location to allow for multiple launch and recovery points.	
Water Quality / Contamination	Water quality sampling show that results were generally found to meet the European Commission Bathing Water Directive, with one failure.	
Recreational Restrictions	Limited recreational restrictions due to ecological sensitivities. The majority of the proposed water activities will be undertaken within the previously 'approved sailing area' as per existing permission ref. 23822/86/1291).	
Public Accessibility	There is no formal parking for existing users of the site. Informal car parking allows for 45 parked cars on hardstanding in the south of the Site. Access and parking arrangements would need consideration. However, this could be considered within the detailed design of future development to ensure access and parking is appropriate for use.	
Site Security / Exclusive Use	The site will be secure and used solely by the users of HOAC	
Access to Wider Amenities	The peninsula provides significant landform for the use of boat storage, campsites, activity areas etc...	
Site Availability	The site is available to the LBH, subject to planning.	

5.23 The advantages of the site include:

- **Lake Surface Area and Land Surface Area** – the site meets the area requirements for both water and land based activities.
- **Accessibility** - The site has good transport links. The access road is currently shared with the adjacent land occupiers GRS Bagging, Harleyford Aggregates and a small number of residential properties. A Public Right of Way (U74) runs adjacent to the eastern portion of the site, which also forms part of the Colne Valley Trail and London Loop;
- **Other** - the lake is close to the previous HOAC location, which would re-provide the displaced community facility in a close proximity to the previous users of the site;
- **Restrictions** – BSC benefit from an approved sailing area to the north of Broadwater Lake, which is permitted and controlled by Condition 2 of planning permission ref. 23822/86/1291 (dated 4th November 1986); and
- **Other (Environmental Considerations)** – there are no major sensitivities with respect to air quality or landscape/heritage associated with development at the site.

5.24 The disadvantages of the site are:

- **Depth** - Some localised dredging would need to be undertaken to ensure the minimum depth is achieved throughout the Sailing Area;
- **Other (Ecological Considerations)** - The location within the Mid Colne Valley SSSI is an ecological sensitivity. Broadwater Lake and Stocker's Lake (a separate lake, approximately 3 kilometres north of the Mid Colne Valley SSSI), form the two most significant refuge/roost sites attracting almost the whole range of water birds in the valley; they both support over 1,000 birds at peak periods. Broadwater Lake attracts nationally important populations of Gadwall, Tufted Duck, Great Crested Grebe and Cormorant;
- **Other (Heritage Considerations)** – consideration of the setting of Widewater Lock Cottage (Grade II) would need to be made during the construction and operational stage of any future development.

Troy Lake

Site Location and Description

- 5.25 Troy Lake is located at Old Uxbridge Road, West Hyde, Rickmansworth, WD3 9YB.
- 5.26 This site is located in the London Borough of Hillingdon, approximately 6km north of Uxbridge town, within the Colne Valley Regional Park. South Harefield village lies to the east of the Site, immediately beyond the Grand Union Canal. This site extends to approximately 22 hectares (ha). The site is also within the Metropolitan Green Belt.
- 5.27 Troy Lake lies immediately north of Broadwater Lake. It is separated from Broadwater Lake by the River Colne which forms the boundary between LBH and Three Rivers Borough Council. It is also known as South Troy Lake to distinguish it from North Troy Lake (named as Blue Circle Lake within this ASA) immediately to the north.

Existing Use

- 5.28 The Uxbridge Rovers Angling and Conservation Society also utilise the lake for fishing. This is possible due to the several gravel bars which provide an area for general coarse angling. According to the Uxbridge Rovers Angling and Conservation Society website⁵, at the time of writing, Troy Lake is closed due to a fish kill and therefore is not to be fished until reopening in 2023. During this closure the Rickmansworth Sailing Club is undertaking work and re-stocking the lake with multiple species. The cause of the fish kill is unknown.

⁵ <https://www.uracs.co.uk/portfolio/troy-lake/>

Figure 6.2: Troy Lake Site Location Plan



Environmental Considerations

Ecology

- 5.29 Troy Lake is part of the Colne Valley Gravel Pits Local Wildlife Site (LWS) which is designated at the county level for wintering birds and wetland habitats. This LWS also includes Blue Circle Lake, Pynesfield Lake and Lynsters Lake which are all to the north of Troy Lake. Winter bird surveys in 2012/13 recorded high numbers of birds and a greater species diversity on Troy Lake than on other lakes in the Colne Valley Gravel Pits LWS. Troy Lake is being considered for inclusion within the Mid Colne Valley SSSI by NE.
- 5.30 As detailed within the Colne Valley Regional Park Panel Report (2017)⁶ Troy Lake supports high numbers of several wintering bird species including: coot (peak count 417), black-headed gull (peak count 78), gadwall (peak count 41), pochard (peak count 40) and tufted duck (peak count 75). This data is consistent with bird count data collected between 1987 and 2007 (White and Harris, 2008)⁷. The HS2 Environmental Statement⁸ included bird count data from all lakes between Copper Mill Lane and the Chiltern Mainline Station (count data for nine lakes). Troy Lake was second only to Broadwater Lake (which is within the Mid Colne Valley SSSI) in the abundance and diversity of wintering water birds it supported.
- 5.31 Surveys in 2012/13 for the HS2 Environmental Statement recorded regular movements of birds between Troy Lake and Broadwater Lake (part of the Mid Colne Valley SSSI) indicating that birds which are a qualifying interest feature of the SSSI may utilise Troy Lake as an extension of the aquatic habitat in the SSSI. White and Harris (2008) have also described the relationship between Broadwater Lake and Troy Lake, in respect of bird movements, as follows:
- “Birds fly south to Broadwater Lake when water sports activity begins. This occurs even when water sports are already active on Broadwater because of the significant refuge area at the southern end of the lake” (p. 50).*
- “A water sports facility is located on the lake [Troy Lake] and when this is active, nearly all the waterbirds leave the site with generally only Coot and Great Crested Grebes remaining.”*
- 5.32 Surveys in 2012/13 have also recorded Broadwater Lake to Troy Lake movements when birds are disturbed from the former lake.

⁶ Colne Valley Regional Park Panel, 2017. High Speed 2: Additional Mitigation Plan for the Colne Valley. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/661180/5368_colne_valley_amp_report_final.pdf

⁷ White and Harris, 2008. The Wetland Resource of the Colne Valley: An assessment of its importance to nature conservation, with special reference to waterbirds. Natural England, Herts. Middlesex. Wildlife Trust, Environment Agency.

⁸ HS2, 2013. London – West Midlands Environmental Statement. Volume 2 – Community Forum Area Report. CFA7 – Colne Valley. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/397888/Vol_2_CFA_7_Colne_Valley.pdf

Landscape, Built Heritage and Archaeology

- 5.33 Troy Lake is set within the landscape context of the Colne Valley Regional Park, which is a mosaic of farmland, woodland and water with 200 km of rivers, canals and over 60 lakes.
- 5.34 Troy Lake is not located within or in the vicinity of any statutorily designated or locally (non-statutorily) designated views. The Site is adjacent to the Black Jacks and Copper Mill Lock Conservation Area (CA) to the immediate east of the Site. The site is also adjacent to the 340m from the Harefield Village CA in the east.
- 5.35 A number of listed buildings (Grade I – II) are located to the east, north and south of the site boundary, the closest being Black Jack's Cottage (Grade II) which is located on the south-eastern boundary of the site, beyond the River Colne and Grand Union Canal.
- 5.36 Troy Lake is located adjacent to an Archaeological Priority Area (APA) in the east designated within the LBH Local Plan.

Transport and Access

- 5.37 An existing single-track access route is present. Vehicular access is made from the Old Uxbridge Road, West Hyde, off the A412. The access road is made off Old Uxbridge Road in the east, looping along the north of the lake and down to the east of the lake, ending at the parking areas on the eastern portion of the site. There are two main parking areas available to visitors. The first location is by the Batchworth Dragon Boat Club, the second is adjacent to the Rickmansworth Sailing Club. The River Colne runs directly adjacent to the north of this single track access route.

Water Resources and Flood Risk

- 5.38 The majority of the Site is in Flood Zone 2 (between 1 0.1 – 1% chance of flooding) and Flood Zone 3 (greater than 1% chance of annual flooding). The Site is also located within a groundwater Source Protection Zone.

Air Quality

- 5.39 The Site is not located within an Air Quality Management Area (AQMA), the closest is the South Bucks AQMA which is approximately 1.70km east of the Site boundary. The AQMA was designated in 2004 for exceedances of the nitrogen dioxide annual mean.

Water Quality

- 5.40 Troy Lake is not labelled as a separate surface water body under the Water Framework Directive. Troy Lake is associated with the Thames Basin River Basin District⁹. The most recent data from the Environment Agency (EA) from 2019 shows that their overall WFD rating is Moderate, Chemical rating is Fail and Ecology rating is Moderate. The chemical failure rating is as a result of perfluorooctane Sulphonate (PFOS), and polybrominated diphenyl ethers (PBDE).

⁹ <https://environment.data.gov.uk/catchment-planning/WaterBody/GB106039023090>

Recreational Criteria Assessment

Table 6.1: Troy Lake Recreational Criteria Assessment

Requirement	Troy Lake Proposal	Criteria Met
Lake Surface Area	The lake meets the required criteria for HOAC activities.	
Land Surface Area	The land surface area available surrounding the lake is not sufficient to meet this criteria.	
Depth	The depth of the lake is unknown as a bathymetric survey is not available. However, information available from the local angling group websites indicate there are a significant number of gravel spits which enable angling.	
Accessibility of Lake from Level Landform	The lake meets the required criteria for HOAC activities.	
Water Quality / Contamination	The water quality of the lake is unknown. However, Troy Lake is currently closed due to a fish kill and therefore is not to be fished until reopening (likely to be during 2023). During this closure the Rickmansworth Sailing Club is undertaking work and re-stocking the lake with multiple species. The cause of the fish kill is unknown.	
Recreational Restrictions	Due to the designation as an LWS, there could be restrictions for training / non-powered recreation. The lake is not of a considerable size to implement an approved sailing area which would ensure activities are located away from sensitive protected bird species.	
Public Accessibility	The site is accessible but the existing access route loops around the north of the site to parking areas.	
Site Security / Exclusive Use	There is potential for the site to provide exclusive use, discussions with existing users on the site would have to be made.	
Access to Wider Amenities	The land surface area is smaller than the required area to provide boat storage, campsite or outdoor activity areas. There is also no access to woodlands or fields.	
Site Availability	Site owners unknown.	
Other	The site sits outside of the LBH boundary	

5.41 The advantages of this Site is as follows:

- **Lake Surface Area** - The lake meets the required 22 hectare surface area;
- **Other** - the lake is close to the previous HOAC location, which would re-provide the displaced community facility in a close proximity to the previous users of the site; and

- **Other (Environmental Considerations)** – there are no major sensitivities with respect to air quality or landscape associated with development at the site.

5.42 The disadvantages and the reasons for discounting the site for HOAC is as follows:

- **Accessibility** - There is an existing single track, long access road to the Rickmansworth Sailing Club site. This would pose a challenge during both the construction stage and the operational stage. The River Colne runs immediately adjacent to the north of the existing site access route. There is no feasible option to upgrade the existing site access as there is no available land between the River Colne and the Troy Lake waterline;
- **Land Surface Area** - the area of land surrounding the lake is smaller than the required 5 acres as specified within the Recreational Criteria. Furthermore, it is unlikely that over three pontoons could be provided;
- **Access to Wider Amenities** - There is no access to woodlands or fields for camping as specified within the Recreational Criteria; and
- **Other (Existing Uses)** - Development at this Site could require displacement of the existing uses on the Site which includes the Rickmansworth Sailing Club and the Uxbridge Rovers Angling and Conservation Society;
- **Other (Receptors)** - There are a number of sensitive receptors near to the Site including the adjacent Black Jack's Cottage (Grade II Listed Building), neighbouring residential properties, commercial premises and a narrow boat charity; and
- **Other (LPA Boundary)** - The lake lies outside LBH boundary;
- **Other (Ecological Considerations)** – The Site is of at least county value to wintering birds as demonstrated by its designation as a LWS. The Site is being considered by NE to be included within the extent of the Mid Colne Valley SSSI; and
- **Other (Heritage Considerations)** – consideration of the setting of Black Jack's Cottage (Grade II) would need to be made during the construction and operational stage of any future development.

Ruislip Lido

Site Location, Description and Existing Uses

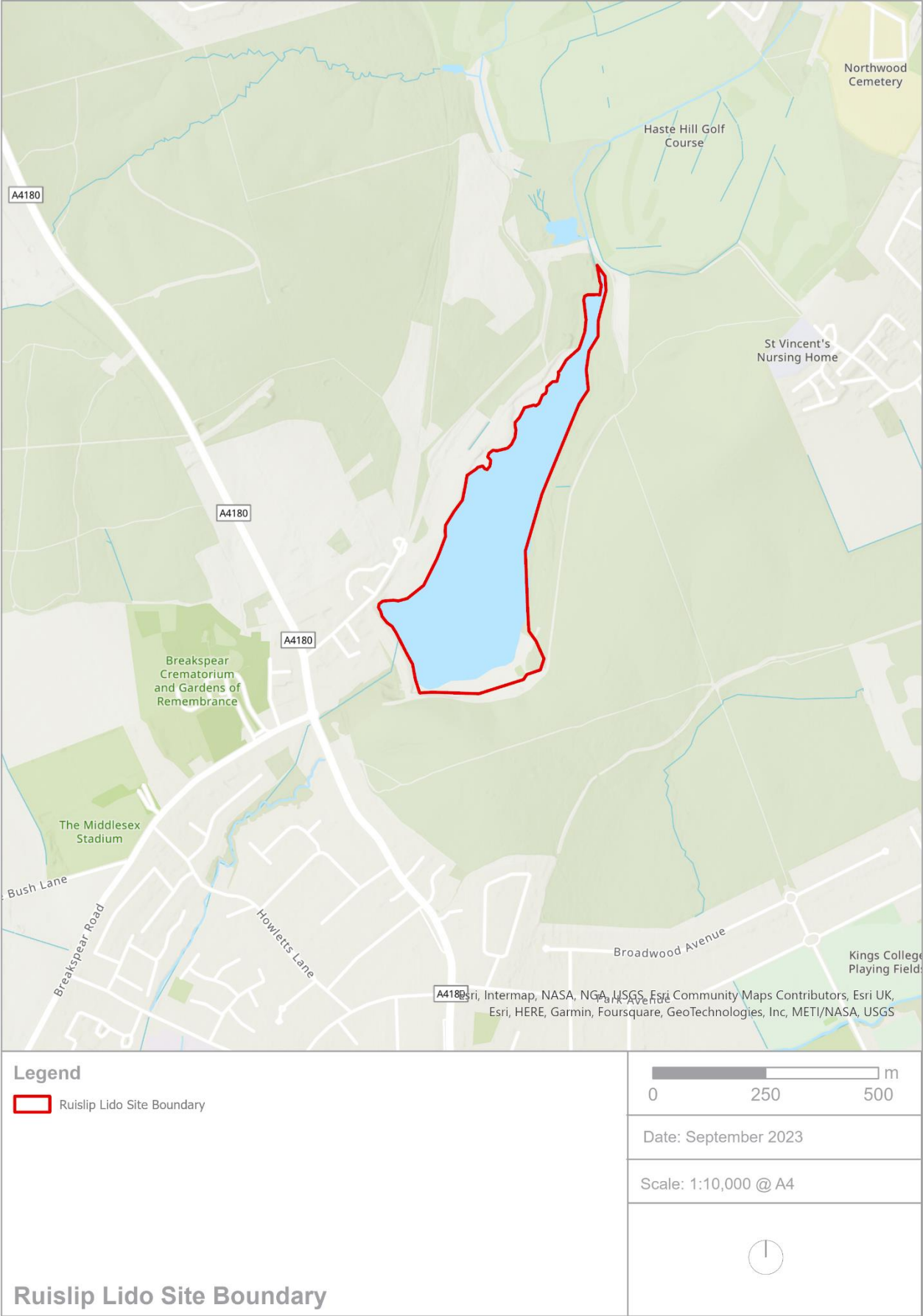
- 5.43 The Ruislip Lido site is located at Reservoir Road, Ruislip, HA4 7TY.
- 5.44 This reservoir is situated outside the Colne Valley to the east between Ruislip, Ruislip Common and Ruislip Woods (a National Nature Reserve). The site location plan is presented in Figure 5.3. To the south of the lido is an artificial beach with a children's play area and the Woodland's Centre/Lakeside Café. A narrow-gauge miniature railway runs along the east, north and west side of the lido (the Ruislip Lido Railway).

Previous and Existing Uses

- 5.45 The waterbody was historically built as a feeder reservoir for the Grand Junction Canal in 1811. The reservoir was reopened in 1933 as a lido with facilities for swimming and boating. During the Second World War, the Ruislip Lido was secretly used by the Royal Air Force (RAF) to train aircrew based at RAF Northolt and RAF Uxbridge in water survival methods.
- 5.46 Having fallen into a state of disrepair during the 1970s and 1980s due to closure of the main building, vandalism and arson, the Ruislip Lido has since undergone renewal works, and was the subject of the Hillingdon Improvement Programme (HIP)¹⁰ unveiled in 2010. The project created the area for recreational use, which had previously not been possible due to pollution and an artificially low water level. This enhancement project saw the newly constructed Woodlands Centre and catering facility as well as refurbishment of the two stations at the Ruislip Lido Railway.
- 5.47 Ruislip Lido previously housed the Ruislip Sailing Club, which closed in the 1970s due to the nature of the dam wall creating water levels that were lowered to prevent flooding to nearby residential homes. The depth of remaining water and available surface area for sailing was reduced to a level that prevented the sailing activities to be undertaken.
- 5.48 LB Hillingdon do not manage the entire lake perimeter, the Water's Edge pub control a significant part of the waterfront and a significant proportion of the available parking.

¹⁰ <https://modgov.hillingdon.gov.uk/documents/s4694/Appendix%203.pdf>

Figure 6.3: Ruislip Lido Site Location Plan



Environmental Considerations

Ecology

- 5.49 The reservoir itself has no statutory protection as a habitat although it does support a wide range of wetland birds including teal, goldeneye, widgeon, shoveler, pintail, pochard, tufted duck, common tern, heron, kingfisher and great-crested grebe.
- 5.50 The woodland surrounding the reservoir comprises Ruislip Woods NNR which have the presence of protected species including great crested newt, slow worms and other reptiles. However, a grassland field adjacent to the main car park of no major habitat importance and already accessible to the public and does lie within the boundary of the NNR. An additional strip of land between the overflow car park and the lake with potential for HOAC land-based activities lies outside the NNR but on its own is likely to be too small and heavily pressured for HOAC's needs.

Landscape, Built Heritage and Archaeology

- 5.51 Ruislip Lido is set within the landscape context of the Colne Valley Regional Park, which is a mosaic of farmland, woodland and water with 200 kilometres of rivers, canals and over 60 lakes. The Ruislip Lido site is not located within or in the vicinity of any statutorily designated or locally (non-statutorily) designated views.
- 5.52 Ruislip Lido is not located within close proximity of any CAs, with the closest being Ruislip Village, approximately 900m south of the Ruislip Lido site.
- 5.53 A number of listed buildings (Grade II) are located to the west and south of the Site boundary, the closest being The Old Workhouse (Grade II) is located approximately 205m west of Ruislip Lido.
- 5.54 Ruislip Lido is located approximately 150m north of the Ruislip Motte and Bailey APA in the east designated within the LBH Local Plan.

Transport and Access

- 5.55 The site is well connected, with access via Reservoir Road in the southern portion of the site. Reservoir Road connects directly onto the A4180.
- 5.56 Ruislip Lido and Reservoir Road has a public transport accessibility level is of 1b (poor accessibility). Ruislip Lido is served by the H13 bus, of which the route is served by Northwood Hills Station, Pinner Station, Ruislip Manor Station and Ruislip Station.
- 5.57 Pedestrian access to the artificial beach for visitors is via a walkway along the reservoir wall from Reservoir Road with a parallel vehicular access for vehicles servicing the café. Ruislip Lido has many public footpaths, with high levels of vandalism a continual problem.
- 5.58 Emergency access to the Ruislip Lido does exist, however, the entrance has a safe-working load on a bridge of 33 gross tonnes.

Water Resources and Flood Risk

- 5.59 The majority of the site lies within Flood Zone 3 (high probability of flooding).
- 5.60 During the Hillingdon Improvement Programme, the EA raised concerns over the raising of water levels to establish boating areas. The water level had been kept artificially low since 1992, when floods caused damage to newly built houses on the Cannon Brook. The Ruislip Lido Improvement Programme Flood Risk Assessment (2011)¹¹ Halcrow suggested a flood mitigation scheme to prevent flooding of Cannon Brook. Further works to Ruislip Lido would be required to facilitate HOAC, which would require the potential for flooding at Cannon Brook to be re-assessed. The FRA only accounts for a 1:100-year climate change event and, as such, the initial water level may need to be adjusted as necessary. It is not possible to raise the water levels due to the flooding within the area. The dam wall would need significant repair and earthworks are of unknown provenance.

Air Quality

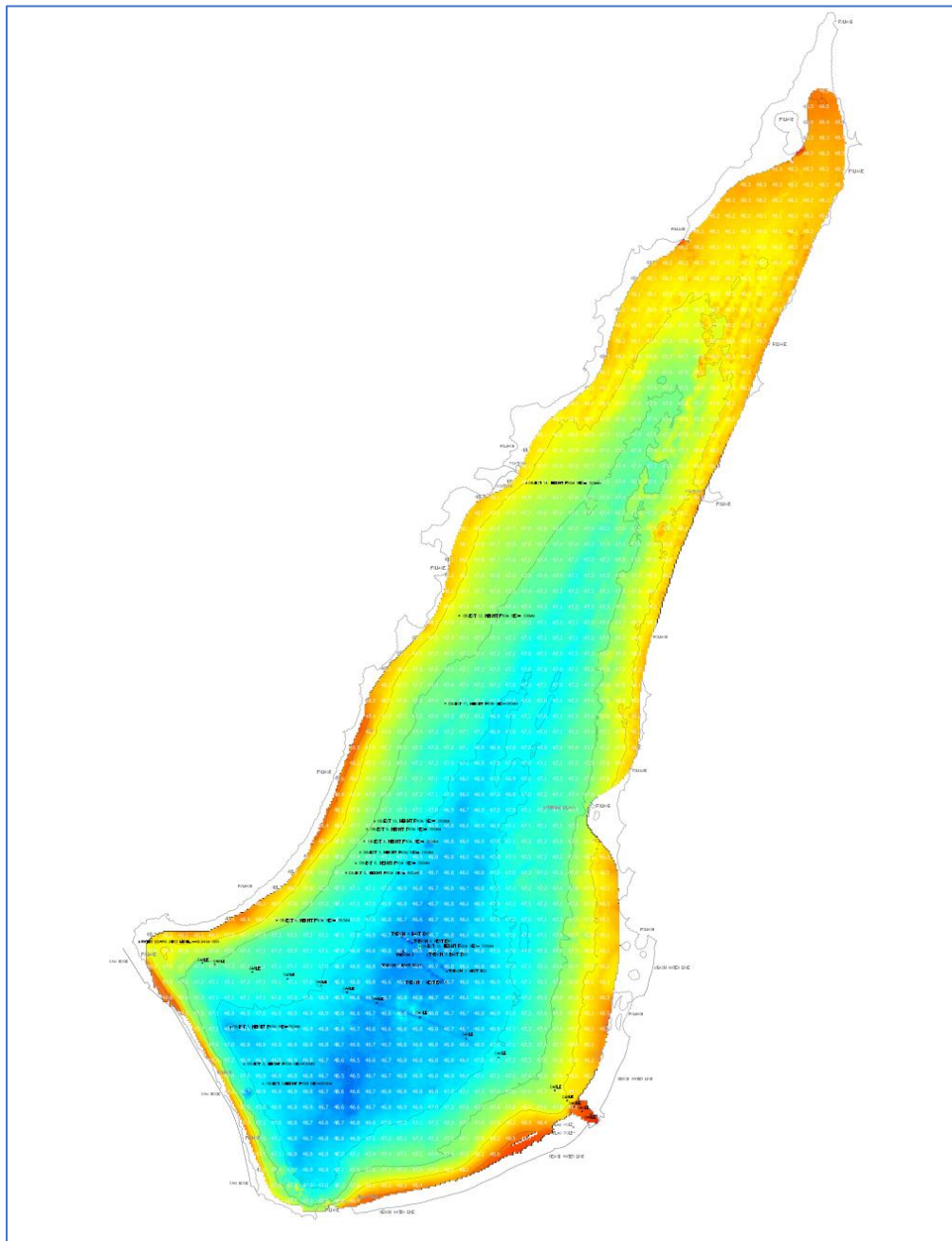
- 5.61 The site is not located within an AQMA, with the nearest being the Harrow AQMA approximately 2.06km east of the site. the Harrow AQMA was designated in 2002 for exceedances of the particulate matter daily mean and the nitrogen dioxide annual mean.

Lake Characteristics

- 5.62 A bathymetric survey was undertaken of the Ruislip Lido in March 2023 with the results presented in Figure 5.3. The survey results show that only a small portion of the Lido has the required depth for HOAC activities. The majority of the lake depth is between 0.5m and 1m in depth.

¹¹ Halcrow Group Limited on behalf of London Borough of Hillingdon, 2011. Ruislip Lido Improvement Programme Flood Risk Assessment.

Figure 6.4: Ruislip Lido Bathymetric Survey



Water Quality

5.63 Swimming is not permitted at the Ruislip Lido. The reasons for this listed on the LBH website ¹² is as follows:

- *“the shock of cold water can make swimming and getting out of the water difficult;*
- *the depth of the water changes and is unpredictable;*

¹² <https://ruisliplido.com/>

- *underwater objects and hazards may not be visible;*
- *swimmer's itch can be caused by an allergic reaction to certain microscopic parasites living in the water.* (added emphasis)

Other (Utilities)

5.64 The existing utility infrastructure at the Ruislip Lido including the sewers, electricity and water supply are operating at the maximum capacity at present. Given the shortage of power in west London an increase in the electrical network supply is ten years away. Increasing the sewer capacity would only be possible by trenching through the dam or excavating through tree roots, both options would not be viable as the existing dam is too weak to accept further trenches and the taming of the trees would not be permitted.

Table 6.3: Ruislip Lido Recreational Criteria Assessment

Requirement	Ruislip Lido Proposal	Criteria Met
Lake Surface Area	13 hectares in area.	
Land Surface Area	There are two small areas of potential for the required land-based activities.	
Depth	Bathymetric survey undertaken in 2022 confirms the average depth of water is 0.5 metres - 1.0 metres.	
Accessibility of Lake from Level Landform	In the summer months, attendance to the lido can be up to 2,000 members of the public. This would reduce availability of the land available for pontoons for future HOAC activities.	
Water Quality / Contamination	Presence of microscopic parasites within the water would have human health effects for future users of the HOAC.	
Recreational Restrictions	No restrictions to training and non-powered recreation due to ecological designations. Recreational restrictions associated with existing public uses by visitors using the site for paddleboarding, kayaking. In the summer months, attendance at the lido can be up to 2,000 members of the public. This would reduce availability of the land	
Public Accessibility	Well connected to surrounding traffic and public transport networks. Established access routes to the car parks.	
Site Security / Exclusive Use	The site would not be for exclusive use of the HOAC users. This would make safeguarding of children very difficult. HOAC could not accept this restriction.	
Access to Wider Amenities	The site includes Large Poor Field which is common land which could be utilised as a campsite.	
Site Availability	The lido site is available to LBH to develop.	

Requirement	Ruislip Lido Proposal	Criteria Met
Other	Flooding concerns as a result of increasing the artificially low water level would require further assessment. Existing utility infrastructure working at capacity, with upgrades and / or amendments to these not viable.	

5.65 The advantages of the site include:

- **Public Accessibility** - Access to the site is established; and
- **Access to Wider Amenities** - The site includes Large Poor Field which is common land which could be utilised as a campsite;
- **Other (Ecological Considerations)** - It has little apparent ecological value except as a buffer to the adjacent Ancient Woodland and due to mature oak woodland around three sides of the field. The grassland habitat would appear compatible with recreational use by HOAC and is already accessible to people; and
- **Other (Environmental Considerations)** – there are no major sensitivities with respect to air quality or landscape/heritage associated with development at this site.

5.66 The disadvantages / the reasons for discounting the site is as follows:

- **Depth** – the results of a recent bathymetric survey confirm that the average depth of the Ruislip Lido is only 0.5 metres – 1 metre, with only small localised areas in the south-western portion of the lake which are less shallow;
- **Water Quality / Contamination** - The presence of microscopic parasites present within the water would mean the Water Quality / Contamination Recreational Criteria is not met, as there is contamination of the water that could cause harm to those undertaking activities within the water;
- **Land Surface Area** - There are two small areas of potential for the required land-based activities. The first area is an area (1ha) of lakeside land north of the Woodland's Edge public house and adjacent to the overflow car park. There would be some conflict on this grass field with existing informal recreation and the parcel of land appears too small. The second area (2ha) is a grass field adjacent to the main car park dominated by improved rye grass where it is adjacent to the car park at the western end and semi-improved fescues at the eastern end;
- **Other (Flooding)** – should the water levels be raised to enable HOAC activities due to the existing artificially low water levels, this could increase off-site flooding potential. This would be of particular concern on Cannon Brook, given historic flooding affecting a number of properties present in the surrounds;
- **Accessibility** - the safe-working load on the entrance bridge is of 33 gross tonnes. This is not sufficient for heavy deliveries such as steel, brick and cement, or access for construction plant such as cranes and excavators;
- **Existing Uses** – the Ruislip Lido in it's current use is an extremely popular location, with up to 3,000 visitors on a bank holiday weekend; and

- **Security / Exclusive Access** - The dam is overlooked by surrounding residential receptors. This would not meet statutory safeguarding requirements. Ruislip Lido also has many public footpaths, with high levels of vandalism a continual problem.

6. Summary and Conclusion

- 6.1 The London Borough of Hillingdon (LBH) has undertaken an appraisal of potential sites to accommodate the relocation of the Hillingdon Outdoor Activity Centre (HOAC). The former HOAC site at Dews Lane is now under full control of HS2. The replacement development would involve a large recreation centre providing leisure activities within the natural setting of a lakeside environment. The new HOAC would focus on: sailing, disabled sailing, canoeing, kayaking, raft building and rowing.
- 6.2 There are a limited number of sites in the local area with access to a lake with adjacent and available land form. A comparative analysis of each of the sites has been carried out which considers factors such as size, accessibility, water quality, availability, suitability and proximity to public transport.
- 6.3 The assessment approach involved identifying an appropriate search area, creating a Long List of Sites which was filtered down to a Short List of Sites. This Short List was then assessed against specific Recreational Criteria required to meet the needs of the HOAC.
- 6.4 A Search Area of a 10 kilometre radius from the previous HOAC location was used, which identified a Long List of 28 sites. When filtering the Long List of Sites, consideration of the physical items of the Recreational Criteria was made (Lake and Land Surface Area, Accessibility of the Site and Site Availability). The Short List of Sites comprised the following lakes: Troy Lake, Broadwater Lake and Ruislip Lido. Each site was contextualised in terms of site location, description, existing and historical uses as well as their environmental considerations listed. Site visits and available survey results were reviewed to characterise the sites and appraise them against the Recreational Criteria, as presented in Table 6.3.

Requirement	Broadwater Lake	Troy Lake	Ruislip Lido
Lake Surface Area			
Land Surface Area			
Depth			
Accessibility of Lake from Level Landform			
Water Quality / Contamination			
Recreational Restrictions			
Public Accessibility			
Site Security / Exclusive Use			

Requirement	Broadwater Lake	Troy Lake	Ruislip Lido
Access to Wider Amenities			
Site Availability			
Other			

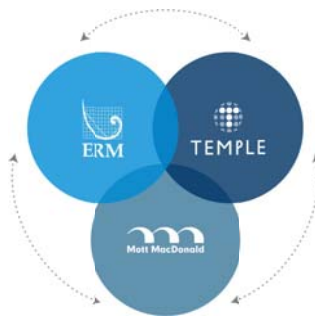
- 6.5 From review of the three shortlisted sites, Troy Lake and Ruislip are not suitable or deliverable alternatives to Broadwater Lake. Broadwater Lake meets the majority of the Recreational Criteria in terms of lake surface area, land surface area, accessibility of the lake from level landform, water quality and contamination, recreational restrictions, public accessibility, site security, access to wider amenities and site availability. It is acknowledged that localised dredging is required on the lake and that the lake is has the ecological designation of the SSSI. However, restrictions on future operations, limiting the sailing area to that currently approved by planning permission 23822/86/1291 and a strict management plan can be overcome any concerns on the impact on the features that make the site a SSSI.
- 6.6 Troy Lake was discounted as a viable option for a number of reasons including the existing single-track access route which are not able to be upgraded due to the presence of the River Colne immediately to the north and the Troy Lake waterline to the south. The existing site access would not meet the recreational requirements for future access of site users by coaches, disabled vehicles and emergency vehicles. In addition, there is a lack of land surface area adjacent to the lake to enable the provision of three pontoons and boat storage areas, as well as no land available to establish campsites or outdoor activities as required by the future HOAC. Troy Lake is currently closed to the local angling clubs due to a recent fish kill, which prevents fishing at the lake. While the cause of the fish kill is unknown, water quality tests would have to be undertaken to determine there are no potential human health effects associated with the water.
- 6.7 Ruislip Lido was discounted as a viable option for a number of reasons. A recent Bathymetric survey of the lido has confirmed that the average depth of the water is 0.5 – 1m in depth, which does not meet the requirements for sailing. Should the water levels be raised to enable HOAC activities due to the existing artificially low water levels, this could increase off-site flooding potential. There are only two small land areas on the artificial beach which are too small to deliver the required three pontoons and boat storage areas required. The existing uses of the site include public use which would conflict with the activities of HOAC. Swimming within the lido is forbidden due to the presence of microscopic parasites within the water which could pose a human health effect.
- 6.8 This ASA demonstrates that the Applicant has thoroughly considered alternative sites for the proposed development and that none are suitable for the requirements of HOAC. Furthermore, if there were other sites available, the development would have come forward sooner, but Broadwater Lake is the only viable and deliverable option. The planning application therefore meets the requirements of Paragraph 180 of the NPPF.




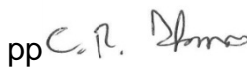

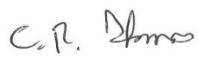
C252 – Country South

HOAC Lake Options Report

Document Number: C252-ETM-EV-REP-020-000075 P04



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1. Introduction

1.1 Scope

ETM has provided a short summary assessment of Hillingdon Outdoor Activity Centre's (HOAC) proposal for relocation to the Broadwater Lake site within the Colne Valley, against the known schedule of activities at HOAC (Broadwater Lake Report C252-ETM-EV-REP-020-000056 P04). HS2 Ltd also requested ETM to provide another summary assessment of HOAC's possible relocation to a range of other lakes within the Colne Valley, including Broadwater Lake. This will be written from the point of view of potential acceptability by HOAC and potential impact on the wetland ecosystems on the lakes. The potential lakes assessed are Broadwater Lake, Harefield Number 3 Lake, Denham Roundabout Quarry, Troy Lake, Tilehouse Lakes, Blue Circle Lake, Pynesfield Lake, Lynsters Lake, Springwell Lake, Stocker's Lake, Bury Lake and Ruislip Lido (see Figure 1).

1.2 Existing Site

HOAC is situated in the London Borough of Hillingdon (LBH) within the Colne Valley Regional Park on the south eastern edge of Harefield No 2 Lake (see Figure 2). Harefield No 2 Lake is within the mid Colne Valley Site of Metropolitan Importance (SMI) and in close proximity to the Mid Colne Valley Site of Special Scientific Interest (SSSI).

HOAC provides water-based and land-based outdoor activities all year round. Users include local people, education groups, community groups and those with disabilities for whom specific facilities are in place. In addition to providing a sub-regional role, the activity centre is embedded within the local community, serving local schools, local people and clubs and providing volunteering opportunities. The activity centre also has a role beyond recreation, providing training for new and existing instructors. There are no other centres providing similar services to those provided by HOAC in neighbouring local authority areas.

The Proposed Scheme will cross the HOAC site on the Colne Valley viaduct and will require the demolition of three of HOAC's buildings. The construction of the viaduct will require placement of piers within the site, including approximately ten in the adjoining 18ha lake, where water based activities take place. Currently the construction programme indicates that the Colne Valley Viaduct Satellite compound, which has to be located on the centre's car park, would be operational for 3 years and 6 months. It is considered that this could potentially be reduced to a minimum of 2 years and 3 months by some reprogramming of works. Neither of these figures includes advance works which National Grid (NG) would undertake during the preceding summer although it is thought at this stage that NG works could be implemented without significantly disrupting the operation of HOAC. This is subject to detailed design being carried out with NG as the scheme progresses.

The ES states that 'land required for construction of the Proposed Scheme will result in closure of the lake and impair the land based activities of HOAC during the construction period. This is considered to be a major adverse effect and is therefore significant'¹. As a result of this closure and the addition of the viaduct over the Lake, HOAC have stated that their operations cannot be restored on this site and they will require a new location to be found². The closure of the facility during the long construction period will also make it difficult to restore business after construction as it is likely that existing customers will have made bookings with alternative facilities.

During operation the land required permanently to operate the Proposed Scheme is considered to result in both the current water-based and land-based operations of HOAC being impaired. The ES states that this is considered to be a major adverse effect and is significant.

1.2.1 Facilities on existing site

HOAC operate their outdoor centre on the 45 acre lake and a 5 acre spit of land on the east side of the lake. While the organisation caters for the whole community, it prioritises young people, disadvantaged people and those with disabilities who make up the majority of the users. Their facilities include the following³:

- a range of land based activities, including archery, a swing complex, woodland activity area, low and high ropes, caving, climbing/bouldering, pedal karting, BBQ area and a campsite;

¹ HS2 London –West Midlands Environmental Statement Volume 2 Community Forum Area Report CFA 7 Colne Valley. Paragraph 5.4.8

² Confirmed by HOAC from correspondence and from a meeting with HS2 on 1st August 2013

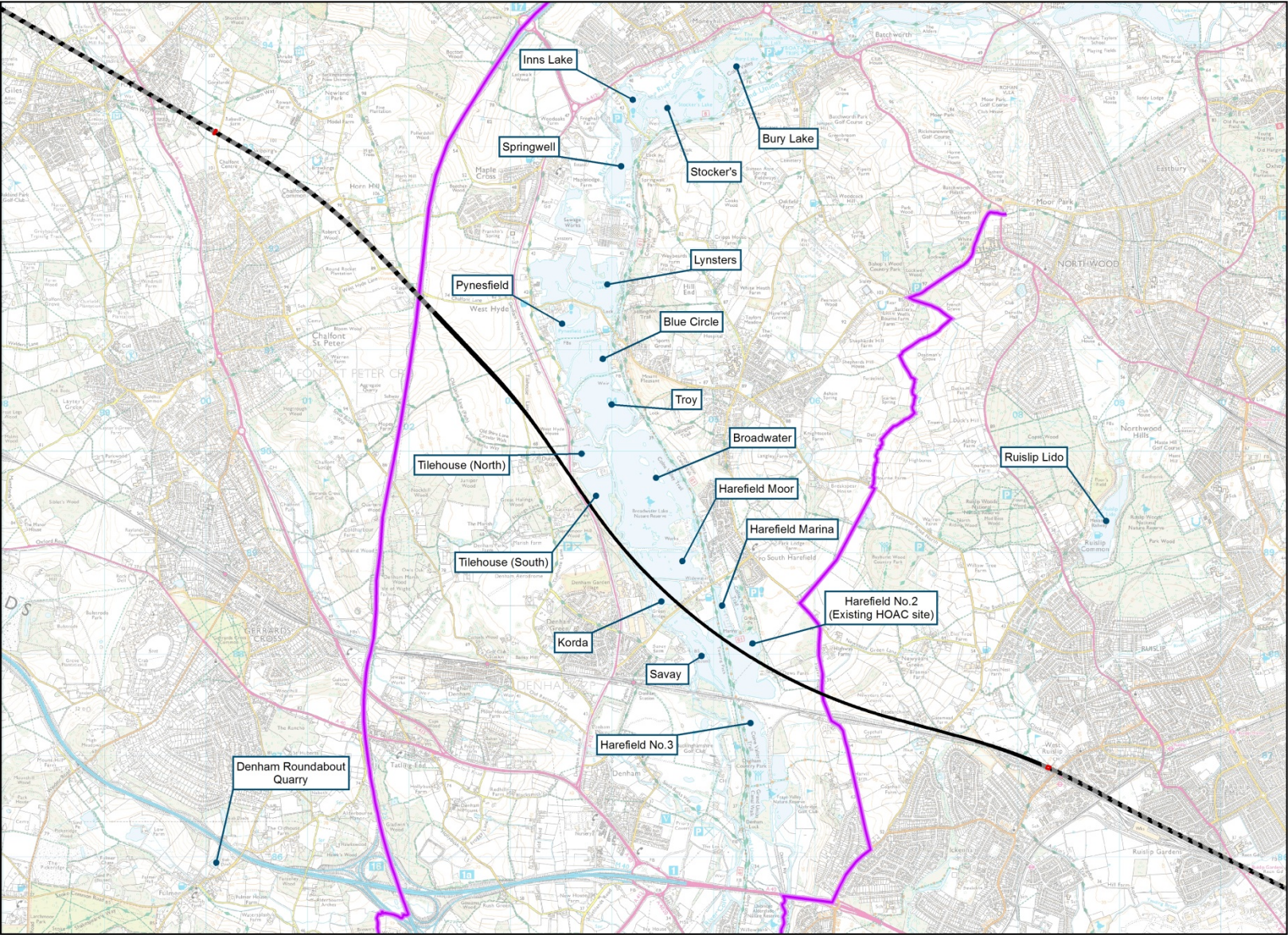
³ TMA: HOAC Preliminary Site Schedule of Accommodation and Facilities – June 2013

- accommodation, including three seasonal staff accommodation chalets, log cabin waterfront office/store room, a wood shelter race hut, lecture room, centre office and staff room, classroom, workshop to allow for maintenance of the facilities and assets, equipment storage areas/shelters;
- a range of water based activities including windsurfing, canoeing, power boating, dinghy sailing as well as floating/rowing pontoons and a slipway for launching boats. The HOAC website indicates they provide canoeing on Tuesdays and Thursday, sculling on a Tuesday and Power boating courses are offered at weekends in November and March; and
- open hard standing for parking (both vehicles and boats).

1.2.2 London Borough of Hillingdon

The existing HOAC site lies within LBH and as such qualifies for a £50,000 annual grant from them. Therefore there is a considerable benefit if the chosen lake lies within the boundaries of LBH. The borough lies east of the River Colne which comprises its western boundary. The only lakes within the approximate neighbourhood of HOAC's current activities and within the LBH are Harefield Number 3 Lake, Harefield Number 2 Lake (existing location), Ruislip Lido, Springwell Lake and a small portion of Stocker's Lake. However, failure to lie within the LBC is not seen as an absolute requirement as there may be other sources of funding and HOAC may not be completely dependent on the current funding.

Figure 1: Colne Valley Lakes



2. Permanent Options

2.1 Broadwater Lake

2.1.1 Context

HOAC have proposed Broadwater Lake as the site for relocation (see Figure 2). This lake is approximately 2km from the existing site and is also within LBH, who currently provide an annual fund to the Centre. HOAC believe this site would offer a feasible solution for relocation and would be able to maintain the level of activities currently provided. The rationale is set out in the Site Relocation Requirement report supplied by HOAC⁴ and relates primarily to the area of water and land available.

Under the plans provided by HOAC, this proposal would provide approximately 90-100 acres of sailing area, excluding the area to the south of the lake and a channel alongside the islands, as well as approximately 7 acres of land on the spit to the east for land based activities and accommodation.

Broadwater Lake is the largest of the four lakes within the Mid Colne Valley SSSI which, together with Stocker's Lake (a separate lake, approximately 3km north from the Mid Colne Valley SSSI), form the two most significant refuge/roost sites attracting almost the whole range of water birds in the valley; they both support over 1,000 birds at peak periods. Broadwater Lake attracts nationally important populations of Gadwall, Tufted Duck, Great Crested Grebe and Cormorant⁵. Recently the Hertfordshire and Middlesex Wildlife Trust (HMWT) provided information on a previous proposal to increase the value of the eastern part of Broadwater Lake by enhancing gravel islands for ducks and waders; however this proposal has not been implemented. As part of the Proposed Scheme, mitigation has been identified on this Lake for wetland habitats and a gravel island for nesting birds.

The Lake is owned for the most part by Lafarge and there is also an existing sailing facility (Broadwater Sailing Club) located to the north of the Lake, which has approximately 250 family and junior members. Their sailing area on the northern part of the lake is approximately 90-100 acres and is active on Wednesdays, Saturdays and Sundays throughout the year. The southern area is kept as an undisturbed area for wildfowl following agreements with Natural England (NE). The agreed zoning plan divides the lake into 5 areas: Areas A and B for sailing with main sailing area in the northern section in zone A and three quiet areas, C, D and E in the southern half as well as the line marked by buoys restricting sailing to the south (see Figure 2). We have assumed that the maximum number of boats they could sail on that area at once in terms of safety and manoeuvrability is approximately 50 small sized dinghies or 35 larger dinghies.

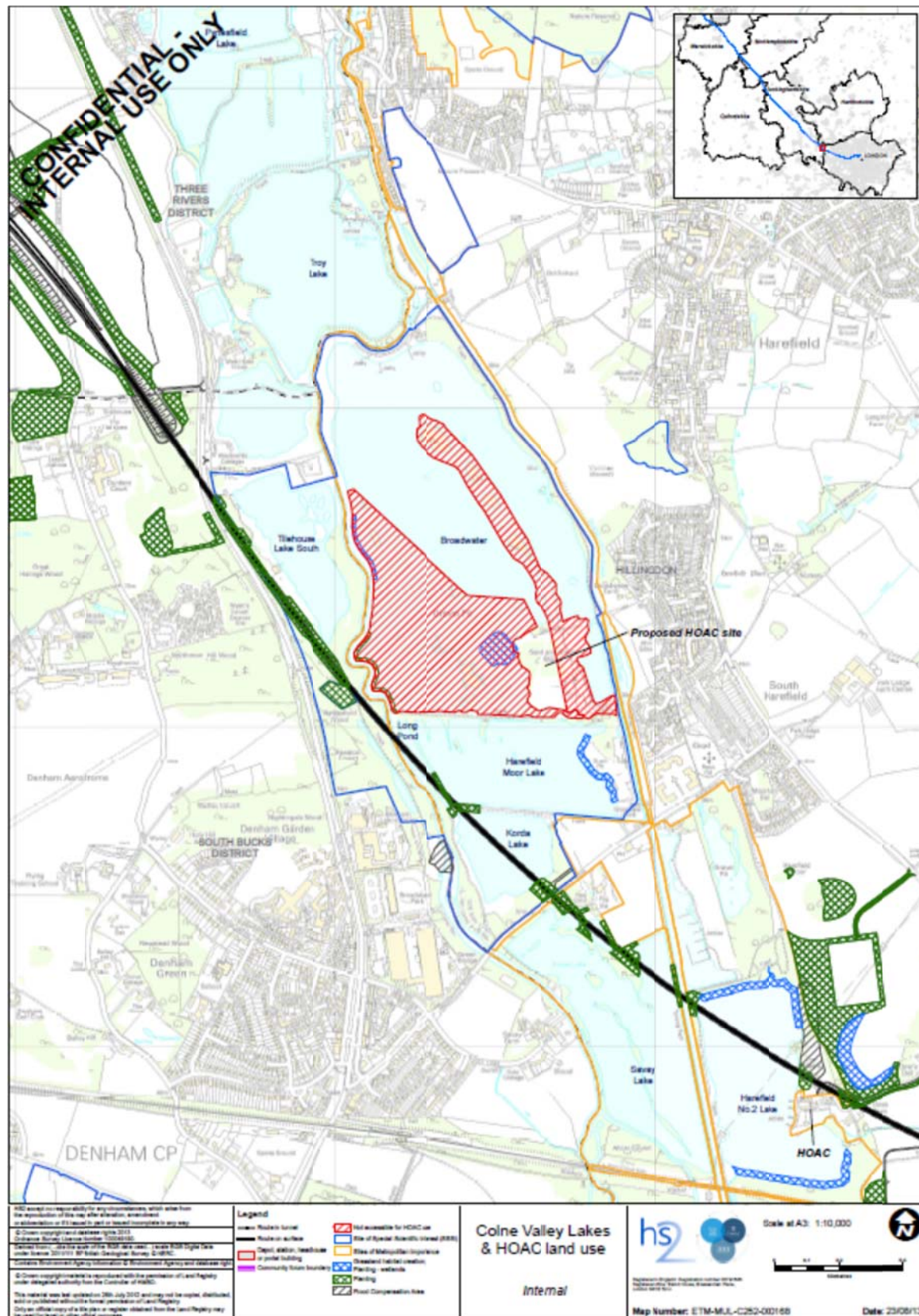


Photo of the Broadwater Sailing club to the north of the Lake

⁴ TMA: HOAC Site Relocation Requirement (05/08/13)

⁵ White G J & Harris A J (2008) The Wetland Resource of the Colne Valley: An Assessment of its Importance to nature Conservation with Special Reference to Waterbirds. Natural England, Herts & Middlesex Wildlife Trusts, Environment Agency.

Figure 2: Broadwater Lake



2.1.2 Recreational considerations

HOAC have stated that they require the following in order to maintain activities in line with the current site⁶. The table below identifies HOAC's requirements against the suitability of the proposed site on Broadwater Lake.

Table 1: HOAC requirements for relocation

HOAC Requirement	Relocation proposal	Criteria Met?
Clean water (spring fed), reliable water levels, depth average 12 feet (approx. 4m) and not less than 2.0m	The dimensions of Broadwater Lake would need to be confirmed. HOAC have also indicated dredging may be required to achieve this in places.	Uncertain
Area 45 acres + with water accessible from several points – pontoons, beaches, slip ways with firm banks where the centre is located	Approximately 90-100 acres available excluding 'no access areas' proposed by HOAC. Areas required for pontoons etc. would need further consideration as access to the zoned sailing area may not be accessible from the proposed land site.	Uncertain
No restrictions on water usage for training and non-powered recreation	Further restrictions would be likely and would need to be discussed with Natural England and the landowner in the first instance.	Uncertain
Access to the lake via tarmac roads for trailers/ vehicles/ boats. Wooden slipways + heavy (metal) slipway for heavier boats	Good access from Moorhall Road although a small section of track would need to be provided from the road to the proposed site.	Yes
Relatively quiet, tree lined environment without being too restrictive on wind (sailing/ windsurfing) – ideally oval, open shape	Would need further information on wind conditions although the proposed site should be able to accommodate this requirement.	Yes
Minimum 45 + acres of level well drained land with mains water, sewage, suitable for land based activities, accommodation and hard standing (160 cars + 4 coaches with overflow capacity) as listed above.	As above, more detailed plans of land requirements would need to be provided although 7 acres is proposed over the current 5 acres currently available.	Yes
Woodlands, large field, level, well drained campsite grass area for 40+ people	The proposed site does have woodland and enough space to accommodate a grassed campsite area for 40 people.	Yes
Ability to make the site secure – natural boundaries, fences, barriers etc.	Should not be a restriction so long as these are in line with surroundings and comply with Natural England Requirements	Yes
Ideally exclusive use/ occupation of water/ site – child safety issues	This would need further consideration with the landowner/Broadwater Lake sailing club before a commitment could be made as the site is currently used by the Broadwater Sailing Club.	No

2.1.3 Ecological considerations

The ornithological interest of the SSSI is significant, particularly its breeding woodland and wetland birds and wintering wildfowl. It also supports one of the last remaining examples of unimproved chalk grassland in Greater London⁷. The majority of the SSSI (c95%) is in favourable condition⁸, with the unfavourable component comprising the calcareous grassland to the east of Broadwater Lake, where species such as *Urtica dioica* (common nettle), *Cirsium arvense* (creeping thistle) and *Senecio jacobea* (common ragwort) are present due to undergrazing⁹.

Broadwater Lake supports 70 breeding bird species, many of them associated with woodland habitats, but including waterfowl such as coot, greylag goose, little ringed plover, kingfisher, mute swan and tufted duck, with occasional breeding by gadwall and shoveler. Little ringed plover and kingfisher are Schedule 1 species as listed in the Wildlife and Countryside Act 1981 (as amended); gadwall and shoveler are both amber listed Birds of Conservation Concern. Significant numbers of moulting waterbirds are also present in late summer/autumn, including tufted duck, great crested grebe, and Canada and greylag geese¹⁰.

6 TMA: HOAC Site Relocation Requirement (05/08/13)

7 http://www.sssi.naturalengland.org.uk/citation/citation_photo/1003469.pdf

8 <http://www.sssi.naturalengland.org.uk/special/sssi/reportAction.cfm?report=sdrt18&category=S&reference=1003469>

9 http://www.sssi.naturalengland.org.uk/special/sssi/unit_details.cfm?situnt_id=1004946

10 White G J & Harris A J (2008) The Wetland Resource of the Colne Valley: An Assessment of its Importance to nature Conservation with Special Reference to Waterbirds. Natural England, Herts & Middlesex Wildlife Trusts, Environment Agency.

The population of moulting tufted duck is reported to far exceed the local breeding populations and is important in a national context¹¹. The lake and a series of islands in the lake provide undisturbed loafing and feeding opportunities for wintering birds, including gadwall, shoveler, pochard, tufted duck, wigeon, goldeneye, mallard, great crested grebe, coot, heron, cormorant and a range of gulls¹².

Islands in the south-west of the lake support nesting colonies of waterbirds (grey herons and cormorants). Rafts have also been created in this area and they support nesting common terns. These colonies are all located in an area where boating activities are prohibited currently to avoid disturbance to the birds.

Waterbirds were also recorded elsewhere in the lake during the breeding season with the surveys, including important numbers of pochard (4 pairs), which were confirmed breeding, on the islands in the western part of the lake which lie in the existing sailing zone.

Construction traffic, vegetation clearance and construction activities associated with the relocation of HOAC will all have an effect on breeding birds. The breeding bird survey undertaken for HS2 recorded only a limited breeding bird community on the land required for HOAC although complete surveys were not possible as access was restricted. On the basis of the information collected significant direct effects to birds in this area are not anticipated.

The southern part of the lake is an important area for wintering wildfowl, as it is an area in which sailing does not occur. Unmitigated exposure to construction activity in the winter months, piling in particular, is likely to lead to some temporary functional loss of open water habitat for birds through disturbance. For waterfowl, disturbance impacts typically occur up to 200m from the source of disturbance¹³. This could prevent use of up to 20 acres of open water during construction within the main area used by the birds. This impact would be short term and reversible and whilst unmitigated impacts could be major, they may be substantially reduced by the use of temporary screening during the construction works, or timing of the construction works to avoid the winter months.

In the summer, islands and artificial rafts in the southern areas of Broadwater Lake are used for breeding by black-headed gull, common tern and, the more wooded islands are used by cormorants for breeding. Several of the smaller islands and rafts are within 200m of the proposed location for HOAC. It is likely that those islands which are nearest to the construction zone would be less suitable for birds to breed on during the construction period as a result of disturbance.

No effects are anticipated on the calcareous grassland components of the SSSI. The calcareous grassland lies approximately 300m east of the lake. However, the proposed area for the land based facilities will result in the loss of some scrub/woodland from within the SSSI. A review of aerial photography shows that more open areas occur throughout much of the southern and eastern parts of this section with more scrub/woodland in the centre and to the north and west. Access was only available to the southern end of the area.

The Broadwater Sailing Club allows boats to use the northern parts of the lake throughout the year and much of the boating activity takes place on weekends. Assuming their sailing areas remain there is already a degree of overlap with the areas where the greatest winter bird interest was recorded. The current levels of activity allow for the lake to be undisturbed for much of the week. Extra weekday activity as well as increased weekend activity is likely to increase the levels of disturbance to waterbirds.

It is likely that there will be pressure to increase the areas available for sailing within the lake. Increased boating density and the variety of craft (HOAC operate rafts, kayaks and wind surfing boards) will also increase the disturbance effects on waterbirds. HOAC's existing power boating activity appears to be largely during the winter, which could produce additional disturbance to wintering waterfowl.

For a variety of reasons HOAC have indicated that they have reduced boating needs over the November-January period. If limits on the number, distribution and days of the week boats operate can be agreed between HOAC, Broadwater Sailing Club and NE it may be possible to reduce impacts to an acceptable level. However in order to avoid impacts on wintering waterbirds the period from November-March should be avoided.

¹¹ White G J & Harris A J (2008) The Wetland Resource of the Colne Valley: An Assessment of its Importance to nature Conservation with Special Reference to Waterbirds. Natural England, Herts & Middlesex Wildlife Trusts, Environment Agency.

¹² The Ecology Consultancy (2012) Mid Colne Valley SSSI - Winter Bird Surveys. TEC.

¹³ Cutts, N., Phelps, A. & Burden, D. 2009. Construction and waterfowl: defining sensitivity, response, impacts and guidance. Report to Humber INCA. Institute of Estuarine and Coastal Studies, University of Hull

2.1.4 Key Issues

Whilst the ornithological interest at the lake is being maintained with the current level of boating activity by the Broadwater Sailing Club, it is likely that this would not be the case with the additional HOAC activities. There are a number of issues of concern which remain:

- the increased in boating density needs to be clarified as it is likely to lead to an increase in disturbance effects on waterbirds;
- the use of power boats needs to be confirmed as this will result in increased disturbance to waterbirds particularly during the winter months;
- the extent of wind surfing and canoeing is important as it may result in greater disturbance because they can access shallow areas and go closer to shorelines where birds nest;
- agreement would be needed with HOAC that boating activities be accommodated in the existing sailing areas and further information on how access to these areas and location of the pontoons and slipway could be achieved from the proposed land based location to the south, without increasing the disturbance to waterbirds;
- agreement would be required with Broadwater Sailing Club to share the use of the lake and it is uncertain how cooperative the sailing club would be; and
- HOAC has indicated that they are prepared to avoid boat based activities during the period November to January inclusive. Whilst it is acknowledged that this is likely to reduce the level of disturbance that may otherwise be created, in order to avoid impacts on wintering birds the period from November to March, inclusive, should be avoided. There remains bird interest throughout the year on the lake including moulting waterfowl in the late summer / autumn period. The likely effects and their significance will depend on the levels of boating activity envisaged and the areas within which they will occur. HOAC have not ruled out a total ban on use of the lake for the period November to March but acknowledge that this would require a significant reorganization of the current business model and may result in the permanent loss of some activities to other venues.

2.1.5 Other considerations

SSSI – development in a SSSI is contrary to national and local planning policy and will generally be resisted by NE unless there were overriding economic or social reasons. This argument would be difficult to make for the relocation of HOAC to Broadwater Lake and is a major consideration which weighs heavily against the proposal. The current assessment of effects of the HS2 Proposed Scheme is dependent on the retention of large areas of undisturbed water in parts of the lake, where boating is prohibited, and which could be used by birds in the event that they are disturbed by HS2 construction works. The main concerns about relocation of the HOAC proposals are the short term effects of construction and the expected long term increase in boating and land based activities (which would result in disturbance to breeding, moulting and wintering waterbirds), and the initial views of Natural England that suggest they are likely to strongly object to the proposals.

Limitations on recreational use - The main issue of reducing impacts on the SSSI will require HOAC to agree a number of issues with NE and Broadwater Sailing Club. These include strict sailing exclusion zones, a narrow corridor by which the waters at the north end of the lake can be accessed from the pontoons/slipways near the land base in the southern part of the lake, and the number, type and timing of boat activities (to avoid the period November – March). Reaching an agreement on the key issues around sailing activities may well be the most significant impediment to progress the relocation of HOAC to Broadwater Lake.

2.2 Harefield No 3 Lake

2.2.1 Context

This lake lies immediately south of the existing Chiltern Main Line between Denham and West Ruislip (see Figure 1). It is therefore immediately south of HOAC's existing location. In 'Wetland Resources of the Colne Valley', Natural England/EA, 2008, the lake is described as one of four water bodies within Denham Country Park. HOAC have stated in their report of 5th August 2013 that this lake is not a viable location for them (see Figure 1).



Photo of the Harefield No 3 Lake

2.2.2 Recreational considerations

Existing angling takes place but in general the overall angling use is not heavy. The site's one advantage is that it lies within the London Borough of Hillingdon. A previously existing sailing club gave up on this site because of vandalism and due to a lack of consistent wind for sailing. HOAC have rejected this location for the following disadvantages which appear valid:

- access along long winding gravel track unsuitable for coaches and many cars;
- direct access from Harvil Road impossible due to steep gradient;
- very little accessible land which is not integral to the site;
- not ideal for sailing due to long narrow lake lying in a hollow. Former sailing club closed on this site; and
- problems of security due to remoteness of the site.

2.2.3 Ecological considerations

The lake is surrounded by good woodland and aquatic margins. Woodland birds include blackcap garden warbler and chiffchaff. Breeding kingfisher and reed warbler are also recorded. Dragonflies are abundant but Dabbling duck are generally sparse. Good numbers of great crested grebe and coot are recorded, as are diving duck including goosander and smew. Therefore the lake is of reasonable ecological interest but not a major conflict with recreational use by HOAC.

2.2.4 Key issues

Major disadvantages for HOAC due to remoteness, small size and lack of appropriate areas for land based activities.

2.3 Denham Roundabout Quarry

2.3.1 Context

This lake will be constructed once it is quarried out and this will not be completed for 7/8 years. It is located due south of Junction 1 on the M40 and east of Uxbridge between New Denham and Southlands Manor (see Figure 1).

2.3.2 Recreational considerations

HOAC have assessed this and regard its advantages as follows:

- excellent road access to A412, A4020 and M4;
- dependent on detailed design, potentially good land and water areas; and
- reasonably close to the existing HOAC site and its markets.

However, they list its disadvantages as following:

- lake still being dug and not due for completion for 7/8 years;
- could be impacted by the Heathrow spur; and
- uncertainty over completion and timescale means HOAC have rejected this option.

2.3.3 Ecological considerations

Since this lake has not yet been completed it is not possible to assess any potential issues. It can be stated however that early stage gravel workings are used by Little Ringed Plover and Common Tern due to bare gravel areas.

2.3.4 Key issues

An unfinished lake with resulting major risks in relation to availability and appropriate design.

2.4 Troy Lake or South Troy Lake

2.4.1 Context

This lake lies immediately north of Broadwater Lake. It is separated from the latter by the River Colne which forms the boundary between LBH and Three Rivers Borough Council. It is called South Troy Lake to distinguish it from North Troy Lake (also called Blue Circle Lake) immediately to the north of it (see Figure 1).

This large lake (22ha) which has a sailing club with boats kept at its north east corner, lies between West Hyde House and Mount Pleasant near Harefield. HOAC has assessed its suitability and are less in favour of it than Broadwater Lake but do not appear to rule it out. Their main reservation is that it is outside the LBH and so reduces their eligibility for grant.

2.4.2 Recreational considerations

HOAC see the advantages of this site as follows:

- the owners may be interested in HOAC acquiring the site;
- the lake is a reasonable size; and
- the lake is close to the HOAC market.

They see the disadvantages as follows:

- the lake lies outside LBH boundary (see section 1.2.2);
- long access road to existing sailing club site;
- area of land around existing sailing club is small, possibly too small for their land based activities; and
- land next to the main road may be suitable but is owned by houses, businesses and a narrow boat charity.

However further qualifications can be made on these disadvantages as follows:

- West Hyde House appears very private and difficult to reconcile with HOAC but the land to the north of it beyond the marble works does appear accessible as well as being close to the entry from the main road;
- the access road could be widened and straightened and the isthmus between Troy Lake and the lake to the north of it on which it travels is at least 20m wide; and
- if the lake was used for boating by HOAC and linked to a land based operation on the potential Colne Valley Park site associated with the portal, the relatively small area available for land based activities could be replaced by a site of major potential. A footbridge crossing the A412 linking the two sites would be desirable but not essential.

2.4.3 Ecological considerations

Troy Lake is part of the Colne Valley Gravel Pits Local Wildlife Site (LWS) which is designated at the county level for wintering birds and wetland habitats. This site also includes Blue Circle Lake, Pynesfield Lake and Lynsters Lake which are all to the north of Troy Lake. Winter bird surveys in 2012/13 recorded high numbers of birds and a greater species diversity on Troy Lake than on other lakes in the Colne Valley Gravel Pits LWS. Troy Lake is being considered for inclusion within the Mid Colne Valley SSSI by NE.

Troy Lake supports high numbers of several wintering bird species including: coot (peak count 417), black-headed gull (peak count 78), gadwall (peak count 41), pochard (peak count 40) and tufted duck (peak count 75). This data is consistent with bird count data collected between 1987 and 2007 (White and Harris, 2008). The Environmental Statement for HS2 included bird count data from all lakes between Copper Mill Lane and the Chiltern Mainline Station (count data for nine lakes). Troy Lake was second only to Broadwater Lake (which is within the Mid Colne Valley SSSI) in the abundance and diversity of wintering water birds it supported.

Surveys in 2012/13 recorded regular movements of birds between Troy Lake and Broadwater Lake (part of the Mid Colne Valley SSSI) indicating that birds which are a qualifying interest feature of the SSSI may utilise Troy Lake as an extension of the aquatic habitat in the SSSI. White and Harris (2007) have

described the relationship between Broadwater Lake and Troy Lake, in respect of bird movements, as follows:

- “Birds fly south to Broadwater Lake when water sports activity begins. This occurs even when water sports are already active on Broadwater because of the significant refuge area at the southern end of the lake” (p. 50).
- “A water sports facility is located on the lake [Troy Lake] and when this is active, nearly all the waterbirds leave the site with generally only Coot and Great Crested Grebes remaining.” (p. 50¹⁴).

Surveys in 2012/13 have also recorded Broadwater Lake to Troy Lake movements when birds are disturbed from the former lake¹⁴.

2.4.4 Key issues

Troy Lake is of at least county value to wintering birds as demonstrated by its designation as a LWS. It may also act as a supporting habitat for wintering birds which are a designated feature of the Mid Colne Valley SSSI. In considering options for relocating HOAC to Troy Lake, the possible negative effect of disturbance on the bird interest of LWS site itself and potential secondary effects on the bird interest of the Mid Colne Valley SSSI must be considered.

A fairly strong contender in relation to recreational considerations despite HOAC's stated reservations and the value of the lake for wintering birds. The issues of improved road access and potential locations for land based activities need investigating further.

¹⁴ White G J & Harris A J (2008) The Wetland Resource of the Colne Valley: An Assessment of its Importance to nature Conservation with Special Reference to Waterbirds. Natural England, Herts & Middlesex Wildlife Trusts, Environment Agency.

2.5 Tilehouse Lakes (Water Ski Club)

2.5.1 Context

These lakes lie adjacent to the north-west corner of Broadwater Lake (see Figure 1). The northern of the two lakes (5ha) is a manicured lake attached to West Hyde House while the southern lake (8ha) has well developed margins of trees and supports a water ski club in the summer months. It would seem unlikely that the northern lake attached to West Hyde House would be an option without compulsory purchase and the site lies outside the area of Limit of Land to be Acquired or Used (LLAU). However purchase problems are less of a problem than other issues. Therefore the focus in this section is on the southern lake.

2.5.2 Recreational considerations

HOAC have not expressed their views on this lake. However main potential advantages for them appear as follows:

- there is potential access directly off the A412; and
- there is potential adjacent land between the two lakes of around 140m² though part of this is taken up by a pumping station belonging to Affinity Water Ltd. There is also potential land to the south of the lake although within the SSSI woodland.

Disadvantages are as follows:

- the lake lies outside the LBH boundary (see section 1.2.2);
- at 8ha and 5ha these lakes appear too small;
- with dense woodland around the southern lake, the reduced wind is relatively poor for sailing;
- there is heavy use during the summer months by the water ski club; and
- the lake lies directly below the proposed viaduct and so would be severely impacted at construction with the construction camp at Weybeards Cottages and impacted to a lesser extent during operation.

2.5.3 Ecological considerations

Although part of the site lies within the SSSI, bird numbers which used to include high numbers of gadwall, shoveler and pochard are now much reduced due to the operation of the water skiing and the use of the northern lake as part of the garden of West Hyde House. Reed warbler and great crested grebe are breeding and winter wild fowl include gadwall, mallard, shoveler, pochard and tufted duck. Of these the largest numbers are tufted duck which reached a maximum winter score of 34 between 2011 and 2013.

2.5.4 Key issues

Two small lakes immediately below the proposed viaduct and already heavily used for water skiing.

2.6 North Troy Lake or Blue Circle Lake

2.6.1 Context

This moderately large lake (13ha) lying immediately north of Troy lake and south of Pynesfield lake belongs to the Clancy Group, a civil engineering contractor based in the old Blue Circle works on the eastern shore (see Figure 1).

2.6.2 Recreational considerations

HOAC have not expressed their views on this lake. However main potential advantages for them appear as follows:

- moderately large size;
- potential access from A412 and Old Uxbridge Road;
- lack of serious constraint in terms of significant birdlife;
- some adjacent land at south east corner near 'the bungalow' and at north east corner by Coppermill Lane; and
- relatively close to HS2's potential land holding associated with the Chiltern tunnel portal part of which could be offered to HOAC for their land based activities.

Disadvantages are:

- the lake lies outside the LBH boundary (see section 1.2.2);
- heavy tree cover of willow and alder may reduce wind;
- dense fishing around the shores by Rickmansworth Conservative Club and District Angling Society may create some constraints at interface between land based and water based recreation; and
- relatively shallow. We do not know the exact depth of these lakes. It is assumed that 2m is an absolute minimum depth for dinghies and 4-5m would be preferable.

2.6.3 Ecological considerations

This lake is generally poor for water birds since heavy disturbance by fishermen ensures that only a few birds of the commoner species generally occur. When there is abundant aquatic weed coot and gadwall may occur in reasonable numbers.

2.6.6 Key issues

A lake of reasonable size, adjacent land, with good access and without significant ecological constraint, although outside LBH.

2.7 Pynesfield Lakes

2.7.1 Context

This lake has an overall area of 19.6ha but is bisected by a spit of land along which there is a footpath linking West Hyde and the Coy Carp public house. It lies north of North Troy Lake and south of Lynsters Lake (see Figure 1).



Photo of the Pynesfield Lake

2.7.2 Recreational considerations

HOAC have not expressed their views on this lake. However main potential advantages for them appear as follows:

- good access from Copper Mill Lane;
- a triangle of land 100m x 272m near the access from Copper Mill Lane. (Compare this to HOAC's existing land of 350mx161m); and
- relatively close to HS2's potential land holding associated with the Chiltern tunnel portal part of which could be offered to HOAC for their land based activities.

Disadvantages are:

- the lake lies outside the LBH boundary (see section 1.2.2);
- as split into two lakes of less than 10ha each it is probably too small;
- the margins are heavily fished by Rickmansworth Conservative Club and District Angling Society; and
- the lake is notably shallow though whether it is less than 2m deep making it impossible for sailing is not clear.

2.7.3 Ecological considerations

Due to the lakes' small size and disturbed nature they do not support large numbers of wintering water birds. However moderate numbers of coot, gadwall and wigeon are attracted in peak years when there is abundant weed growth. Low numbers of pochard and tufted duck are regular. As many as 90 wigeon

were recorded in 2012 and 2013 and these are likely to be part of the same population which use the pastoral grazing habitat adjacent to Lynsters Lakes.

2.7.4 Key issues

Good bird numbers in some years. Good access and associated land though lakes rather small at less than 10ha each.

2.8 Lynsters Lakes

2.8.1 Context

This lake lies immediately north of Coppermill Lane and Pynesfield Lake. It is bounded on the north-west side by Lynsters Farm and on the north east side by a large sewage works (see Figure 1).



Photo of the Lynsters Lake

2.8.2 Recreational considerations

HOAC have not expressed their views on this lake. However main potential advantages for them appear as follows:

- good direct access to the water from Copper Mill Lane and Old Uxbridge Road; and
- relatively close to HS2's potential land holding associated with the Chiltern tunnel portal part of which could be offered to HOAC for their land based activities.

Disadvantages are:

- the lake lies outside the LBH boundary (see section 1.2.2);
- although the overall water body is large (23ha) it is subdivided into three subsidiary lakes by extensive spits and bunds. It may be possible to cut a channel through some of these. Shape and size of easternmost lake has potential for racing;
- active angling and also shooting may limit other recreational potential; and
- there are fairly large areas of adjacent land to the north but access to them appears difficult through Lynsters Farm and the back of the sewage works. They are also important for duck, especially wigeon which graze on the grass.

2.8.3 Ecological considerations

There are high numbers of wintering water birds with 83 gadwall, 109 tufted duck, 307 coot and 55 wigeon recorded in 2012 and 2013. There are also moderate numbers of geese, with 56 greylag recorded in 2012 and 2013. Adjacent grazing lawns attract the wigeon and the relative shallowness of the lake

probably accounts for the large numbers of dabbling duck. The relatively good birdlife creates a moderate constraint on recreational development

2.8.4 Key issues

A better than average group of lakes for wildfowl. Access, associated land and size of eastern lake suggest recreational potential.

2.9 Springwell Lakes

2.9.1 Context

This long narrow lake (16ha) extends north-south between Springwell Lane and the Maple Lodge Sewage Treatment Works (Affinity Water) which is downstream of the lake. At its north eastern corner there is a large construction site and at its north western side there are some large market gardens/allotments (see Figure 1).



Photo of the Springwell Lake

2.9.2 Recreational considerations

HOAC have not expressed their views on this lake. However main potential advantages for them appear as follows:

- The lake itself lies within LBH and so is eligible for grant for HOAC;
- it has good access off Springwell Lane and Maple Cross Close; and
- it has extensive land (410m x 215m) on its western shore north of Maple Lodge Farm which is accessible from a track which skirts the industrial estate. In contrast to the lake, this is not within LBH, however, and a bridge over the River Colne would be required to link the two sites.

Disadvantages are:

- may be seen as too narrow with heavily wooded sides less good for wind;
- above average birdlife adjacent to Stocker's Lake local nature reserve which lies immediately to the north;
- the lake is exceptionally tranquil with no recreational use except by anglers; and
- is not contiguous with HS2's land associated with the Chiltern tunnel portal though with its own adjacent land this is less of a problem.

2.9.3 Ecological considerations

The lake supports moderately high numbers of tufted duck and coot in winter with maximum scores of 65 tufted duck and 126 coot during the period 2012-2013. The aquatic margins are botanically rich with hemlock water dropwort, orange balsam, brown sedge and angelica.

2.9.4 Key issues

Apart from Broadwater Lake SSSI this is the only reasonably large lake with good access which also lies within LBH so qualifying for HOAC's current grant, although the adjacent land is outside the borough. Though this lake has a moderately high value for birds it lacks any conservation designation.

2.10 Stocker's Lake

2.10.1 Context

This large lake (28ha) lies immediately south west of Rickmansworth and upstream of Springwell Lakes. It is a Local Nature Reserve managed by the Herts and Middlesex Wildlife Trust along with volunteers from Friends of Stocker's Lake (www.fosl.org.uk) and is seen as being as important for birdlife as the Broadwater Lakes SSSI complex (see Figure 1).



Photo of the Stockers Lake

2.10.2 Recreational considerations

HOAC have not expressed their views on this lake. However main potential advantages for them appear as follows:

- the western end lies within LBH; and
- there is some adjacent land (372m x 200m) on the north side with possible vehicular access from housing on the south side of the A412.

Disadvantages are:

- major importance for wild fowl with Local Nature Reserve designation; and
- access around eastern end of the lake on footpaths from Stocker's Farm to the south and the A412 to the north may be difficult especially as these involve crossings over the River Colne to the north and the canal to the south.

2.10.3 Ecological considerations

This is an exceptionally important lake for wildfowl with open water, significant shallows and islands. The circular path round the lake is well back from the shoreline so reducing the impact of visitors on birdlife. As a result the lake together with Broadwater Lake is the major water bird refuge in the Colne Valley significant for shoveler, mallard, pochard and tufted duck. The adjacent heronry is one of the largest in the county. It is an important site for gadwall and wigeon when weed is abundant and supports breeding geese, cormorant, pochard, tufted duck and common tern. It is also a roost site for goldeneye, goosander and smew. Wet woodland supports a number of plants which are locally scarce, notably large bittercress, moschatel and broad leaved helleborine. Maximum numbers bird recorded in 2012 and 2013 include 121 shoveler, 74 pochard, 152 tufted duck, 12 goldeneye, 138 coot and 24 common tern.

2.10.4 Key issues

Because of its high conservation status this lake is unlikely to be acceptable as a new location for HOAC.

2.11 Bury Lake

2.11.1 Context

This lake (9ha) lies immediately north-east of Stocker's Lake separated by a narrow causeway, and to the west of Batchworth Lake. To the south is The Grand Union Canal and to the north an area of deciduous woodland. The lake is part of the Rickmansworth Aquadrome Local Nature Reserve (LNR), a 41 hectare site situated at the northern end of the Colne Valley Regional Park, consisting of lakes, grassland and woodland. The main features of Rickmansworth Aquadrome are Bury Lake and Batchworth Lake, both formed through gravel extraction of this site which ceased in the 1920s.



Photo of Bury Lake



Photo of picnic area for potential use for HOAC's land-based activities

2.11.2 Recreational considerations

HOAC have not expressed their views on this lake. However the main potential advantages for them appear as follows:

- there is an existing boat house complete with landing stage and slipway. A planning application is being prepared for a new boat house and landing stage;
- the lake is used for sailing, windsurfing and canoeing;
- size of lake and open aspect appropriate to sailing subject to any conflict with other users;
- there may be space to incorporate the land based activities of HOAC, however, land surveyed lies within LNR, picnic area (see photo above) and currently used open space;
- there is existing vehicular access from Frogmoor Lane to south-east to present boat house. Car parking facilities present on site.

Disadvantages are:

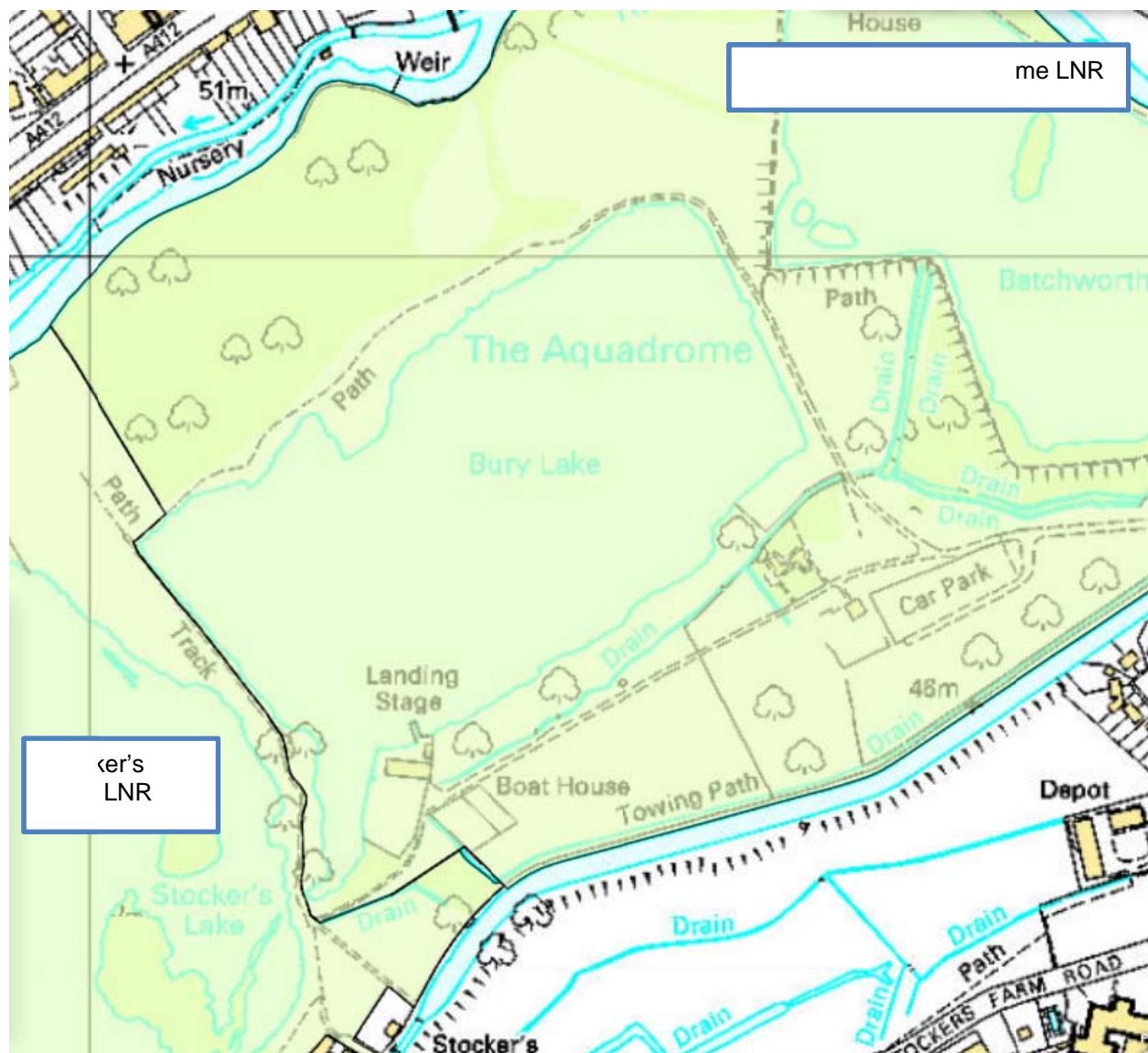
- lake already used by a number of recreational clubs and hence capacity to incorporate HOAC's water activities limited given the potential conflict. Existing recreational clubs include:
 - Bury Lake Young Mariners (BLYM), a youth charity organisation used by over 5000 people each year [<https://blym.org.uk/>];
 - The Three Rivers Yachting Club [<http://www.3rryc.org.uk/>];
 - Ricky Windsurfing Club [<http://www.ricky-windsurfing.co.uk/>];
 - Rickmansworth Water Ski Club [<http://www.rwsc.co.uk/>];
 - Nomad Kayak Club [<http://www.nomadkayakclub.co.uk/>];
 - Uxbridge Rovers Angling Society [<http://www.uracs.co.uk/>].

- the lake lies outside the LBH (see section 1.2.2);
- major importance for wild fowl and woodland birds with statutory protection due to LNR designation.

2.11.3 Ecological considerations

This lake is within a LNR (see Figure 3 for LNR designations) which also embraces Batchworth Lake and is immediately adjacent to Stocker's Lake LNR which is regarded as the most important lake within the valley for birds. It is an important feeding site for water birds when not in use by water sports. There are regular movements of birds between Stocker's Lake and Bury Lake either when disturbed or for roosting including tufted duck, goldeneye, great-crested grebe and kingfisher on the water together with redpoll, tree creeper, great spotted woodpecker and chiffchaff in the woodland. This lake is a key site for mute swan within the valley, with up to 100 birds gathering to be fed by visitors to the Aquadrome. Birds gather throughout the year, including a summer non-breeding flock, but numbers peak during the moult and the winter months.

Figure 3: Bury Lake with LNR designations.



2.11.4 Key issues

This lake is unlikely to be acceptable as a new location for HOAC because of its statutory status as a LNR although this does not rule out an element of recreational use. There are only two potential areas for land-based recreation use by HOAC which do not heavily conflict with existing recreation users. These comprise two grass fields on the south side of Bury Lake separated from the lake by the main public

footpath and vehicular access to the existing facilities. They lie between the café and the boathouse. One is a grass field with public access (1.5 ha) and the other a picnic site (0.9 ha) (see photo above). Both sites lie within the LNR. The presence of existing water sports clubs using the lake will also create conflict with HOAC.

2.12 Ruislip Lido

2.12.1 Context

This reservoir (13ha) is situated outside the Colne Valley to the east between Ruislip, Ruislip Common and Ruislip Woods (a National Nature Reserve). Historically built as a feeder reservoir for the Grand Junction Canal in 1811, the reservoir was reopened in 1933 as a lido, with facilities for swimming and boating. To the south of the lido is an artificial beach with a children's play area and the Woodland's Centre/Lakeside Café. Running along the east, north and west side of the lido is a narrow gauge miniature railway. Access to the artificial beach is via a walkway along the reservoir wall from Reservoir Road with a parallel vehicular access for vehicles servicing the café.



Photo of Ruislip Lido and Woodland's Edge Public House



Photo of grass field adjacent to the main car park

2.12.2 Recreational considerations

HOAC have not expressed their views on this reservoir. However main potential advantages for them appear as follows:

- no sailing clubs currently use the lido although it is believed that a sailing club (formerly known as Ruislip Lido Sailing Club) relocated from this site in 1987 to the Colne Valley;
- there is vehicular access from Reservoir Road which leads to the lido car park and overflow car park. However, in peak season it is likely that these car parks would be full and this is a potential conflict with HOAC's use;
- there are facilities such as cafés and toilets; and
- the reservoir lies within the LBH (see section 1.2.2).

Disadvantages are:

- conflict with other recreation users and lack of space for land-based activities outside of NNR designation. The beach area on the south-east side of the reservoir adjacent to the Woodland's Centre/Lakeside Café only consists of a strip of sand and adjacent tarmac and is heavily used by families with small children and elderly people so would be incompatible with additional use from HOAC.

2.12.3 Ecological considerations

The reservoir itself has no statutory protection as a habitat although it does support a wide range of wetland birds including teal, goldeneye, widgeon, shoveler, pintail, pochard, tufted duck, common tern, heron, kingfisher and great-crested grebe.

The woodland surrounding the reservoir comprises Ruislip Woods NNR (see Figure 4 below). There is no reason to suppose that HOAC's activities would need to take place within the Ancient Woodland but a grassland field adjacent to the main car park of no major habitat importance and already accessible to the

public does lie within the boundary of the NNR. An additional strip of land between the overflow car park and the lake with potential for HOAC land-based activities lies outside the NNR but on its own is likely to be too small and heavily pressured for HOAC's needs.

Figure 4: Ruislip Lido with surrounding NNR designation in blue.



2.12.4 Key issues

There are two areas of potential for HOAC's land-based activities. The first area is an area (1ha) of lakeside land north of the Woodland's Edge public house and adjacent to the overflow car park. There would be some conflict on this grass field with existing informal recreation and the parcel of land appears too small. The second area (2ha) is a grass field adjacent to the main car park dominated by improved rye grass where it is adjacent to the car park at the western end and semi-improved fescues at the eastern end. It has little apparent ecological value except as a buffer to the adjacent Ancient Woodland and due to mature oak woodland around three sides of the field. The grassland habitat would appear compatible with recreational use by HOAC and is already accessible to people. It does however lie within the National Nature Reserve (NNR) and for this reason is not appropriate for use by HOAC and is likely to be objected to by Natural England . Furthermore this piece of land includes Large Poor's Field which is common land. At a late stage in writing this report information was obtained about an additional piece of land to the west of the main car park . This is an open area comprising a mixture of grassland and scrub and is outside the boundary of the NNR. It is owned by Affinity Water and further investigation would be required to ascertain its suitability for use by HOAC.

3. Conclusions and Recommendations

This section will discuss preferred options and a table assessing these is set out below. Red is seen as worst case scenario. Yellow is seen as moderate scenario and green as best case scenario. It is important to note that we have no information about land-owner willingness for any of the options at this stage and therefore no information on viability. The combination of most appropriate for HOAC's requirements and least conflict with ecological issues gets the best score.

Table 2: Assessment of lake options

LAKE OPTION	RECREATIONAL ADVANTAGES	RECREATIONAL DISADVANTAGES	ECOLOGY ISSUES	SCORE (Best fit 10; worst fit 1)
Broadwater Lake	Accepted by HOAC	The main issue of reducing impacts on the SSSI will require HOAC to agree strict sailing exclusion zones, a narrow corridor by which the waters at the north end of the lake can be accessed from the pontoons / slipways near the land base in the southern part of the lake and the number, the type and timing of boat activities (e.g. to avoid the period November to March), and the location / development of land based activities where they will not have an adverse effects on birds.	Development in a SSSI is contrary to national and local planning policy unless there are overriding economic or social reasons. Whilst the ornithological interest at the lake is being maintained with the current level of boating activity it is likely that this will not be the case with the additional HOAC activities.	2
Harefield No 3 Lake		Rejected by HOAC due to bad access, small size and vandalism problems.	Low bird counts.	1
Denham roundabout quarry lake		Still being constructed so rejected by HOAC due to timescale.	N/A.	1

Troy Lake	Adjacent land; reasonable size; good access.	Outside LBH and so rejected by HOAC but otherwise good recreational potential. Alternative funding could solve LBH problem?	A LWS of County value for wintering birds It may also act as a supporting habitat for wintering birds which are a designated feature of the Mid Colne Valley SSSI. Being considered for inclusion within the SSSI by NE.	7
Tilehouse Lakes	Not assessed by HOAC	Outside LBH; small size; beneath new viaduct; existing water ski club.	Low bird counts.	1
Blue Circle lake	Not assessed by HOAC. Adjacent land; reasonable size; good access	Outside LBH.	Low bird counts.	4
Pynesfield Lake	Not assessed by HOAC	Outside LBH; too small.	Relatively good bird counts but no designation.	2
Lynsters Lake	Not assessed by HOAC	Outside LBH; too small as split into 3 lakes.	Relatively good bird counts but no designation.	1
Springwell Lake	Not assessed by HOAC. The lake lies within LBH; adjacent land; good access but in Three Rivers District.	Narrow lake which may be difficult for sailing use.	Good winter bird counts but no designation.	6
Stockers Lake	Not assessed by HOAC.	Difficult access.	Local Nature Reserve with very high bird counts and likely to be strongly opposed by ecologists	1
Bury Lake	Not assessed by HOAC. Good access and good facilities.	Outside LBH; many existing water sports clubs/ users as well as land based recreation.	Within the boundaries of LNR with varied water and woodland bird species.	3
Ruislip Lido	Not assessed by HOAC. The lake	Limited available land which may	Within NNR and potential land	4

	lies within LBH. Not used currently by any water sports clubs.	conflict with existing users. Adjacent land owned by Affinity Water could be suitable.	area is common land.	
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4. Next Steps

HOAC's preferred option for relocation is Broadwater Lake, however given the significant environmental impact a move to this Lake will have on the SSSI and the associated planning risk in achieving this relocation it is HS2's view that this should not be promoted further as a viable alternative.

It is recommended that HS2 continue to discuss the options highlighted in this report with HOAC and based on our current understanding and knowledge of the options within the Colne Valley the preferred location is Troy Lake but with Springwell Lake and Ruislip Lido also worth considering. It is recommended that land ownership is researched for these three sites and further work undertaken to test the feasibility for the relocation of HOAC to one of these locations.

1 June 2015

Chairman
HS2 Select Committee
Palace of Westminster
Westminster
SW1A 0AA

Dear Mr Syms,

Hillingdon Outdoor Activity Centre (HOAC)

HOAC is a unique educational and leisure resource in the area and its loss would leave many thousands of young people in South Bucks and West London with no access to outdoor education in their locality.

The erection of viaduct piers at approximately 40m intervals from a parallel construction jetty, the works to replace overhead electricity lines and the scale and duration of the construction works will mean that all the lake used by HOAC will be closed during the construction period. This is all according to the Environmental Statement.

The duration of construction of the viaduct is approximately five years which comprises approximately six months to replace the overhead electricity lines and approximately four and a half years to construct the viaduct. There will also be demolition of 3 community buildings associated with HOAC.

The land required for construction of the Proposed Scheme will result in closure of the lake and impair the land based activities of HOAC during the construction period. It will close the centre as there will be no car park and the land area used will be a building site. This is considered to be a major adverse effect and is therefore significant; all of this is acknowledged in the Environmental Statement.

HS2 Ltd was extremely slow to start looking for alternative sites and have singularly failed in finding a suitable alternative site. We know that HS2 Ltd was pursuing the relocation of HOAC to Denham Quarry in Buckinghamshire, which Buckinghamshire County Council very much welcomed, as landowner and from a minerals site restoration policy perspective. Buckinghamshire County Council and South Bucks District Council initially met with HS2 Ltd in July 2014 for pre-application discussions. A further meeting was held with HS2 Ltd on 7 January 2015 where HS2 Ltd



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presented their proposals for redevelopment of the site and understood that HS2 Ltd intended to submit a planning application and possibly an Additional Provision to the Bill.

The reasons given by HS2 Ltd are that Summerleaze need to comply with their current remediation plan until the time they have a new planning application approved. Until then, they will be filling in parts of the quarry that would be required for a sailing lake and they have already started doing that. HS2 Ltd maintains that a planning application is prone to delay from statutory and local residential objections. Summerleaze has also said they would not be able to extract material for the extended lake in anything like the timescale required.

HS2 Ltd says their current plan is to pursue the option of relocation to Troy Lake. Troy Lake is currently occupied by the Rickmansworth Sailing Club. It is difficult to see how both can operate on what is quite a small lake. We understand that is not an option from HOAC's perspective and also that no discussion has as yet taken place with Three Rivers District Council. Troy Lake is close to the route of HS2 and will be subjected to disruption during construction and unacceptable noise levels when the trains are operating. There are also numerous other issues with this location all of which HS2 Ltd are aware.

Buckinghamshire County Council and South Bucks District Council last met with HS2 Ltd for pre-application discussions to progress this relocation on 7 January 2015. We explained that a planning performance agreement could suit all parties and this could take from 16 weeks to 6 months. HS2 Ltd said they would probably also submit an Additional Provision to the Bill. It is therefore disappointing that HS2 Ltd now find that time is running out.

Buckinghamshire County Council wrote to HS2 Ltd on 9 April 2015 to offer to meet jointly with HOAC and HS2 Ltd and also to support, by negotiating with Summerleaze, the backfilling of the quarry, in order to try to facilitate and move this proposal forward. An email response was received from Martin Wells, HS2 Ltd, dated 27 April 2015 assuring us that they remain committed to exploring options with HOAC. We were also told, 'that given the sensitive and politically significant nature of this issue Cabinet Office guidelines prevent us from attending the sort of meeting you propose during the restricted period surrounding the Election. However, we would be happy to discuss options with the relevant planning authorities once these restrictions are lifted'.

We were previously told by HS2 Ltd staff that engagement meetings of this type *could* continue during the purdah period but that no assurances could be offered. Since purdah ended in early May, Buckinghamshire County Council has still not been offered a meeting on this issue and the window of opportunity for a successful relocation of HOAC is rapidly closing due to HS2 Ltd's delays.

Yours sincerely,

Martin Tett

Martin Tett
Leader



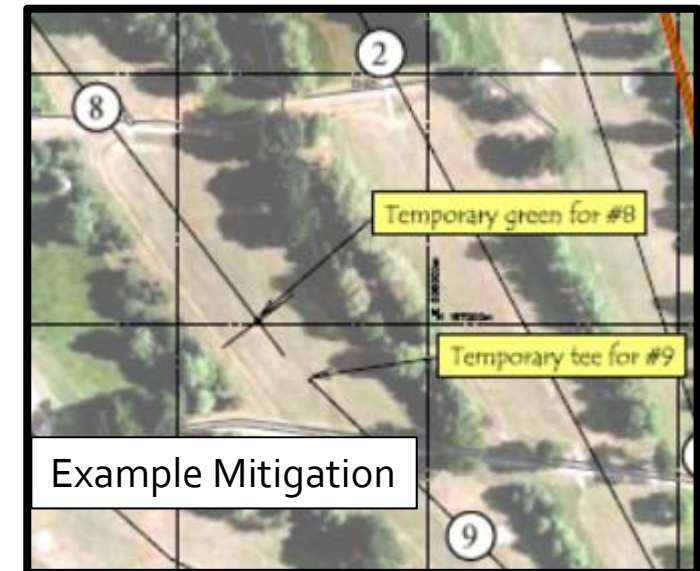
INVESTOR IN PEOPLE



Uxbridge Golf Course – mitigation proposal

Consultation with Uxbridge Golf Course is ongoing and current proposed mitigations include:

1. Diversion & power supply route planned to minimise impact by:
 - a) Restricting land take to northern and western areas
 - b) Positioning pylons between holes
 - c) Utilising paths and non fairway areas
2. Works programmed to minimise disruption
3. Modifications to holes
4. Use of temporary greens and tees



To maintain a playable 9 hole golf course