

## Hillingdon Water Sports Facility and Activity Centre, Broadwater Lake, Harefield Surface Water Drainage Proposal

### Clarification Note

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<b>Project ref:</b>	5784 Broadwater Lake, Harefield
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#### Background

1. A planning application for the “*Redevelopment of the site to create the Hillingdon Watersports Facility and Activity Centre .....*” was submitted to Hillingdon Council on 6 October 2023. The application was validated on 14 November 2023 with the planning reference 2382/APP/2023/2906.
2. The application was accompanied by a Flood Risk, Drainage and Sequential Assessment report (“the 2023 FRA report”) prepared by Weetwood Services Ltd (Report ref: 5784/FRDSA/Final/v1.0/2023-09-26).
3. In response to feedback from consultees across a range of technical disciplines, the submitted scheme was revised. In respect of flood risk, the most significant change was the removal of the proposal to extend the northern part of the peninsula. In addition, the area of land reclamation was substantially reduced and the proposals for some of the existing islands in the lake were revised. The revised proposal were submitted in December 2025 and will result in an overall increase in the open water area of 716 sq m.
4. An updated FRA report accompanied the revised proposals (Report ref: 5784/FRDSA/Final/v2.1/2025-08-12) (“the 2025 FRA report”). The 2025 FRA report includes a revised assessment of flood risk (using the best flood risk information available at the time), a revised drainage scheme to suit the amended scheme, and an updated sequential assessment of potential alternative sites. The relevant information from the two technical notes referenced above was incorporated into the revised FRA report.
5. LB of Hillingdon as the Lead Local Flood Authority (LLFA) provided a “planning application review form” on 2 December 2025. The form does not state that the LLFA objects to the proposal, but does suggest that further clarification (on eight matters) is provided before the application is approved.
6. **This document responds to each of the matters raised by the LLFA.**

#### Clarification Information

7. Before responding to the matters raised by the LLFA, it is important to recognise that the proposed development is for a water sports and activity centre located on the peninsula of a former gravel pit.
8. As stated in Section 7.1 of the 2025 FRA report, the peninsula previously housed a gravel washing/processing plant with a silt lagoon and a tip for inert quarry wastes. The majority of the peninsula area is impermeable with remnant concrete hardstanding, whilst the silt lagoon, peninsula edges and small areas of remaining natural ground have been colonised with self-setting trees.
9. In respect of surface runoff, Section 7.2.1 of the 2025 FRA report states:
  - New tarmac surfacing over the existing concrete hardstanding: Runoff will be directed to proposed infiltration trench soakaways and permeable Grasscrete paving, from where it will infiltrate into the ground.
  - New impermeable surfaces within the extent of existing concrete hardstanding: Surface water will drain as existing, with surface water either infiltrating through cracks in the slab or running off towards Broadwater Lake as directed by existing topography;

- New tarmac surfacing over undeveloped land: Surface water will be directed to adjacent permeable gravel, from where it will infiltrate into the ground.
  - Existing access road to the site: Will continue to drain as existing.
  - Rainwater harvesting will be included to flush toilets. Other methods of localised storage to manage surface water run-off close to its source, such as green roofs, water butts, and rain gardens, will be explored as the proposals are developed further.
10. Responses to the matters raised by the LLFA are provided below:
11. **Matter 1: Provide more information regarding the proposed SuDS measures to be included on-site, as per the London Plan drainage hierarchy.**
- Response: This is covered in Sections 7.2.1 and 7.2.3 of the 2025 FRA report (see also summary in para. 12 above). Given that groundwater is expected to be in continuity with Broadwater Lake, shallow trench soakaways and permeable gravel/grasscrete have been proposed to minimise the depth of SuDS. This approach is in accordance with the London Plan drainage hierarchy. We would expect full details of the SuDS features to be secured by a suitably worded planning condition.
12. **Matter 2: Confirmation of the greenfield, existing and proposed run-off rates.**
- Response: The part of the site that will be redeveloped is brownfield and will continue to drain as existing. As such, greenfield runoff rates are not relevant to the proposal. (Refer Section 7.2.1 of the 2025 FRA report).
13. **Matter 3: Clarification of the proposed attenuation volume (the FRA report states 12.7 cu m and the SuDS proforma proposes 363 cu m).**
- Response: The only proposed attenuation is in the trench soakaways. These provide an attenuation storage volume of 12.7 cu m as stated in Section 7.2.3 of the 2025 FRA report (refer also to Appendix G of the 2025 FRA report for the 30 year critical storm event, highlighted in red). The attenuation volume provided in the SuDS Proforma has now been superseded. It should be noted that the reason the trench soakaways are included are not principally to provide attenuation but to replace the existing mechanism of surface water infiltrating through cracks in the slab, as these cracks would be sealed by the proposed surfacing.
14. **Matter 4: Demonstrate that no flooding on-site will occur during the 1 in 30-year event.**
- Response: The proposed drainage discharge situation replicates the existing site drainage as summarised above and in the 2025 FRA report, the 3.3% probability storm event was not specifically considered however given the design flood level is the maximum modelled in-channel water level of the River Colne during the design flood event is 37.89 m AOD and much of the site is above this level no flooding is expected during the 1 in 30 event.
15. **Matter 5: Demonstrate via a suitably annotated drawing, exceedance flow routes to confirm no increased flood risk to other areas on site during a flood event.**
- Response: Given that proposed levels across the areas of existing/proposed hardstanding are remaining the same as existing there would be no increase in flood risk off site.
16. **Matter 6: Confirm maintenance tasks for the proposed rainwater harvesting features and proposed basins/ponds and provide maintenance owner for all SuDS features.**
- Response: Rainwater harvesting would be utilised to flush toilets, and will be maintained by the site owner/operator. The details relating to basins/ponds referenced in the GLA SuDS *pro forma* has been superseded – refer to swales/basins/ponds in Appendix J of the 2025 FRA report. Full details of the rainwater harvesting and SuDS features would be provided at the detailed design stage. As such, we would expect details of ongoing maintenance of all SuDS features to be secured by a suitably worded planning condition.

**17. Matter 7: Confirm hydraulic calculations for all four infiltration trenches and update the provided calculations with the FEH22 rainfall data and using the whole site area.**

- Response: Indicative attenuation storage volume calculation for the infiltration trenches are provided in Appendix G of the 2025 FRA report. These calculations are provided for feasibility/agreement in principle purposes only and detailed design calculations will be provided at detailed design stage. It should be noted that the infiltration trenches have only been provided to drain the new areas of hardstanding only. The remainder of the site will continue to drain as existing.

**18. Matter 8: Confirms the maintenance owner.**

- The SUDS/drainage would be maintained by the site owner/operator and we would expect details of ongoing maintenance of all SuDS features to be secured by a suitably worded planning condition.

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