

Flood Risk Assessment note

Project	Ruislip Lido – planned improvements	Date	26 August 2010
Note	FRA – Overflow Car Park Proposal	Ref	WBRLFS
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1. This Flood Risk Assessment note considers the flood risk for the overflow car park proposal at the Ruislip Lido. The information is taken from a site-specific Flood Risk Assessment for the planned improvements at the Ruislip Lido planned by London Borough of Hillingdon, which is separately reported⁽¹⁾.
2. The site-specific Flood Risk Assessment has involved producing revised Flood Zones to establish the 1 in 100-year floodplain based on detailed hydrological analysis and hydraulic modelling specific to the Ruislip Lido, and including an allowance for climate change (+20% flows), in line with the advice of the Environment Agency.
3. The revised Flood Zones indicate that the overflow car park proposal is within the flood envelope, and therefore some form of mitigation is appropriate. The average 1 in 100-year flood depth is only 0.35m (based on modelling studies), increasing to 0.37m including an allowance for climate change – this flood depth varies between 0 to 0.5m approximately.
4. It is proposed that the finished levels of the car park are set so that the 1 in 100-year flood depth does not exceed a depth to be agreed with the Environment Agency, which is tentatively recommended at 0.25m.
5. To limit the flood depth it requires some limited landfill, which results in a small nett loss of floodplain storage. For this reason, mitigation is proposed by creating a compensatory floodplain area in another part of the Ruislip Lido site to fully offset the loss of floodplain resulting from the overflow car park. This will involve re-contouring land equivalent in plan area to the car park.
6. The site-specific Flood Risk Assessment also considers an option for an alternative water level management scenario that potentially increases the 1 in 100-year flood depth at the Ruislip Lido site. Inevitably this increases the finished level of the car park and scope of the mitigation.
7. The design of the overflow car park proposal incorporates two interceptors and sustainable drainage. The drainage from the new car park area will therefore not contribute any additional rainfall-runoff and avoids any adverse impact on the existing flood risk.

⁽¹⁾ The detailed information on flood risk included in the site-specific Flood Risk Assessment report (separately reported) confirms that in line with PPS25 the planned improvements are acceptable in terms of flood risk and that the flood risk can be sustainably managed, i.e. in response to increasing flood risk due to climate change.