

Addendum to item 5: 19/1179/FUL - Comprehensive redevelopment to provide 2 no. warehouse Class B1c/B2/B8 units comprising a total of 16,140 sqm including 1,986 sqm ancillary B1a office space, access, landscaping and associated works at DEVELOPMENT SITE, MAPLE LODGE, MAPLE LODGE CLOSE, MAPLE CROSS, HERTFORDSHIRE.

Impact on adjacent Local Wildlife Site (Maple Lodge Conservation Area)

Following the publication of the Committee Report/Agenda, the following further comments have been received from Hertfordshire Ecology (HECO) regarding the impact of the proposed development on the adjacent wildlife site.

Comments from Hertfordshire Ecology (HECO) 8/11/19 [Objection]:

Maple Lodge Nature Reserve, forms a mosaic of habitats including reed beds, lakes and marshy grassland, these habitats contain species specific to fen and swamps. The site dates effectively from the 1930s when it included a ballast pit. These species are dependent on the continued maintenance of wetland and marsh conditions within the reserve and would be lost or endangered, if the water supply into the reserve is significantly reduced. The site is already subject to fluctuating water levels as a reflection of the local hydrology, irrespective of the impacts of any new development. The issue is the extent to which the development will impact on the current hydrology.

Our initial response dated 29/07/2019 dealt in part with concerns raised by the Chiltern Society that raised the concern that any surface or ground water diverted away from the channel flowing into the Nature reserve would negatively impact on the reserve and its wildlife. My response advised that the application should not be determined until it had been demonstrated that the quantity and quality (In terms of pollution) of water supplied to the channel feeding the LWS would not be compromised by the development.

Maple lodge Conservation Society have also raised concerns relating to the impact of the development to the water supply to the lake. In their first letter dated 25th July and published 29th July they specify that the lake is fed by rainfall, ground water and surface water runoff and raised concerns relating to proposals to de-water the development site and channel away surface water. However, this may be only be during the construction itself, a process which would stop once any development was completed. They also highlight risks to the water supply perceived to come from proposed pile driving, repeated in their response dated 25th October where they state that the predominant source is groundwater. However, the appendix which shows this was not part of the documents uploaded on to the planning portal.

Our second response dealt with replies by Tier Consult dated 11th Sept and by Greengage dated 11 September to our initial response. In both cases only the issue of the flow of water into the drain that feeds the lake in the Nature Reserve were considered, not the issues relating to supply of the lake by ground water. The Greengage response did refer to ground water but only in relation to its flow in to the drain.

I have now received the appendix relating to ground water from the Maple lodge Conservation Society, this does seem to support the claim that significant rises in water levels within the lake do occur independently to the amount of flow in the stream and in excess to what can be accounted for by rainfall falling directly on the lakes surface. The claim that the ground water is coming in the main from or through the application site is not supported by any measurements, but the topography of the area suggest that this may well be the case. Whilst this raises the question as to whether the development will have a significant impact on the movement or supply of ground water into the Nature Reserve, rainfall and groundwater will affect the river valley catchment locally as a whole, not just the development site. Indeed, the

main river course flows through the lake complex itself, so this must have an important relationship with the adjacent wetland areas. Furthermore, I understand there is some disagreement on whether or not there is a perched water table on the site, and whether this will have any impact on groundwater flows if this is affected by piling operations.

The two mechanism by which this supply could be interrupted have been suggested; the impact of the pilling as raised in the response by Affinity Water and the dewatering of the site for construction. A response relating to the concerns over the impact of piling has been made by the applicant, which refutes the arguments made by Affinity Water. However, the claims made relate specifically to the impact on fissures within the chalk and to the supply of drinking water. These may not deal with the concerns raised by the Conservation Society relating to the damming effect of the piling, but the behaviour of groundwater after any such works would need to be modelled based on a thorough understanding of the impact of any obstruction. Herts Ecology have no specialist knowledge or expertise of hydrological matters and would defer expert opinion to those that have. However, if these issues can be satisfactorily resolved to demonstrate water into the reserve will not be affected, we would have no reason to object on these grounds. The EA have also commented on the piling, recommending written consent of the local planning authority prior the start of any such operation should be a condition of approval. The reason given for this condition, amongst others is to prevent further deterioration of a water quality of adjacent surface waterbodies.

I consider this would appear to leave a number of unresolved questions relating to the application in connection with its impact on the Nature Reserve.

- 1. Is the dewatering of the site of a scale and duration that will cause a negative impact on the water supply to the nature reserve?*
- 2. Will the piling impact on the long-term supply of ground water into the reserve and if so, is the condition suggested by the EA sufficient to prevent any such deterioration? The EA would also be a key authority in respect of ensuring water pollution was not generated as a result of any impact on contaminated land created by the piling operations.*
- 3. If the risks above are realised, is mitigation possible that would ensure no loss to biodiversity with in the Nature Reserve?*

Until these matters can be satisfactorily resolved to the satisfaction of the LPA then I would advise that the development should not be approved. However, we remain of the opinion the in respect of the development site itself, there is insufficient ecological interest present to justify refusal on the grounds of ecology, despite the negative impact the development would have on the open grassland. However, whilst this can be possibly addressed through biodiversity offsetting, it should not be approved without the potential impact on the Nature Reserve being satisfactorily addressed as well.

Officer Response:

Whilst HECO have previously noted that with regard to the discharge of water from the application site, there would be a negligible change in the level of water entering the nature reserve, having reviewed further information relating to ground water levels they consider that there is evidence to suggest that significant rises in water levels within the lake do occur independently to the amount of flow in the stream and in excess to what can be accounted for by rainfall falling directly on the lakes surface.

Two mechanisms by which the ground water supply could be interrupted have been suggested; the impact of the pilling and the dewatering of the site for construction. HECO note that a response relating to the concerns over the impact of piling has been made by the applicant, which refutes the arguments made by Affinity Water. However, they note that the claims made relate specifically to the impact on fissures within the chalk and to the supply of

drinking water and therefore these may not deal with the concerns raised by Maple Lodge Conservation Society relating to the damming effect of the piling. They consider that the behaviour of groundwater after any such works would need to be modelled based on a thorough understanding of the impact of any obstruction. HECO acknowledge that this is not an area in which they have specialist knowledge and comment that if this issue can be satisfactorily resolved to demonstrate water into the reserve will not be affected, they would have no reason to object on these grounds, however, at this time HECO consider that there are a number of unresolved questions relating to the application in connection with its impact on Maple Lodge Nature Reserve. Specifically: Is the dewatering of the site of a scale and duration that will cause a negative impact on the water supply to the nature reserve?; Will the piling impact on the long-term supply of ground water into the reserve and if so, is the condition suggested by the EA sufficient to prevent any such deterioration? The EA would also be a key authority in respect of ensuring water pollution was not generated as a result of any impact on contaminated land created by the piling operations; and If the risks above are realised, is mitigation possible that would ensure no loss to biodiversity within the Nature Reserve?

HECO have advised that until these matters can be resolved to the satisfaction of the LPA, the development should not be approved.

As such, it is suggested that reason for refusal 4 be amended to read:

R4 *It has not been demonstrated that the proposed development, particularly due to the proposed use of piling and the dewatering of the site, would not have an adverse impact on the amount and quality of groundwater, any impacts on which has the potential to adversely impact the public water supply and adjacent Local Wildlife Site. Accordingly the development fails to comply with Policies CP1 and CP9 of the Core Strategy (adopted October 2011), Policies DM6 and DM9 of the Development Management Policies LDD (adopted July 2013) and the NPPF (2019).*