Impacts of the Water House development on the ecology of Hampstead Heath

Nature conservation interest of areas of the Heath likely to be affected by the proposal:
Hampstead Heath is an exceptional area for wildlife and the enjoyment of the natural world. It has been classified by the Greater London Authority as a Site of Metropolitan Importance, i.e. one which, if damaged, would result in a loss to London as a whole.

The proposal lies close to two ponds, the Bird Sanctuary and the Kenwood Ladies Bathing Pond, which, with their associated habitats, form probably the most important area for wildlife on the whole of Hampstead Heath. The habitat associated with these two ponds comprises open water, wetland vegetation, grassland, scrub and woodland. Unlike most of the rest of the Heath, it is secluded, much of it being fenced, providing a vital wildlife sanctuary.

The fauna of the area is exceptional:

- Breeding kingfisher, reed warbler, blackcap, chiffchaff and many other birds breed here. Green woodpeckers use this area and may breed here; this is a UK Species of Conservation Concern.

- 11 species of dragonfly were observed here in 2008

- The area supports breeding grass snakes, toads and frogs. The grass snake is a UK Biodiversity Action Plan Priority Species

- 5 bat species have been recorded here

Ponds further downstream may also be affected by the development. These also support important wildlife, including breeding great crested grebes and swans.

Impacts of the development
The major anticipated impacts fall into two categories:

1. Effects of water runoff

2. Dust

3. Noise and shaking caused by heavy vehicles using Millfield Lane

<u>1. Effects of water runoff</u>
The development will result in a great deal of water being generated, for example from de-watering the substantial ground excavations, from washing vehicles and other equipment, and from surface water runoff. Despite the measures detailed in the Construction Management Plan, it is inevitable that some of this will impact on the ponds. The lie of the land means that spillage reaching this part of Millfield Lane

will run towards the Kenwood Ladies Swimming Pond and the Bird Sanctuary, flowing through valuable wetland vegetation and a stream and on into the ponds.

Many lorries will pass along Millfield Lane carrying extremely wet clay excavated from a depth of up to 30m. It seems certain that water will run from some of these lorries, and that some of the water will contain a very high load of sediment from the clay being excavated from the site.

The sediment will deposit mud on valuable wetland habitat, then run into the ponds, causing turbidity (a lack of water clarity) of the water in the ponds to increase, as well as siltation on the bottom of the ponds. The effect will be felt most in the Kenwood Ladies Pond and the Bird Sanctuary, but will also be transmitted downstream to the Boating Pond, the Men's Bathing Pond and the Highgate Number 1 Pond.

Increasing the turbidity will affect the whole food chain, from phytoplankton, which require sunlight, to birds, which feed on fish, plants and invertebrates. The kingfishers will be affected, as they will not be able to see through the water to fish, and the number of fish may also decrease. Oxygen levels in the water are likely to fall, causing fish deaths. Dragonfly larvae eat small aquatic organisms and these species will be affected. Oxygen levels in the both ponds can already be low, so a significant increase in turbidity would thus be disastrous to the important ecology of these ponds.

The mud in the water will increase the siltation of these lakes, which are already suffering from long-term siltation, resulting in reduction in depth.

In wet conditions or through an unplanned incident there is a risk that water could escape from the site itself. This would pose additional risks, as it could cause additional contaminants, such as oil and diesel fuel, to reach the ponds, which may have a long-lasting effect on pond ecology. Secondly, mud will be deposited over wetland vegetation, damaging it.

2. Dust

Despite the precautions detailed in the Construction Management Plan, dust will inevitably be generated during construction. This may cover vegetation and the ground outside the site, damaging vegetation and associated organisms. It will be washed off into the ponds, causing problems similar to those caused by water runoff.

3. Noise and shaking caused by heavy vehicles using Millfield Lane

The heavy vehicles using Millfield Lane will be noisy and will cause the ground nearby to shake. It has been shown that birds nest less frequently near noisy roads, and this effect will occur here, reducing especially the number of birds breeding in the thick bushy habitat along Millfield Lane, and possibly affecting the kingfisher. Grass snake and toads are known to feed and hibernate near Millfield Lane, and may be affected by ground shake.

Conclusion

The proposed development is likely to have a serious effect on the wildlife of an exceptional area of Hampstead Heath, causing potentially disastrous damage to the ecology of the ponds and harming a wide range of fauna. The effects will be long term and possibly permanent.

It is also important to note that Phase 1 Habitat Survey by MKA Ecology Ltd, of the 20 January 2015, is flawed because the survey was undertaken in January. This is, outside the 'optimal' ecological survey time period of May to September.

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