peakecology LIMITED
ECOLOGICAL CONSULTANTS

Oliver Paish
Derwent Hydroelectric Power Ltd
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3rd September 2015

Dear Oliver,

Proposed Hydroelectric Power System at Consall Mill, Staffordshire

It is our understanding that Derwent Hydroelectric Power Ltd are working with the landowners towards the submission of a planning application for the installation of a hydroelectric system adjacent to Consall Mill. The Planning Authority has requested an update of the Ecological Walkover Survey carried out by Peak Ecology Ltd in September 2013.

Peak Ecology re-visited the site on 2nd September 2015 to determine if conditions at the site had changed and if any additional ecological impacts, not previously evident, were considered likely to arise from the installation of the hydroelectric system. This survey was undertaken by Sarah Stone MCIEEM. Sarah has over eight years' experience as a professional ecologist and is competent to carry out surveys of this nature, in line with CIEEM's competency framework (CIEEM 2012[1]).

This report should be read in conjunction with Peak Ecology's 2013 survey report (Peak Ecology Ltd, 2013[2]).

Site Description

There had been no significant changes to the site or its habitats between the 2013 and 2015 surveys, with the survey area still dominated by the mill building and hardstanding, with small areas of improved grassland, scrub and ornamental planting and a pond at the south-eastern end of the site.

Ephemeral, short perennial species had begun to grow within the hardstanding, with species such as greater plantain *Plantago major*, red clover *Trifolium pratense* and broad leaved dock *Rumex obtusifolius* all present. Longer grassland and immature scrub had also begun to grow at the edges of the hardstanding, primarily immature ash *Fraxinus excelsior*, bramble *Rubus fruticosus*, meadow grass *Poa* sp. and hedge bindweed *Calystegia sepium*. The scrub on the site did not show signs of management and had become denser, particularly around the existing pond, such that the surveyor could not get close to the proposed turbine shed location.

[1] Chartered Institute of Ecology and Environmental Management (2012) *Competencies for Species Surveys*. CIEEM, Winchester.

[2] Peak Ecology Ltd (2013) *Ecological Walkover Survey: Consall Flint Mill, Staffordshire*. Produced for Derwent Hydroelectric Power Ltd.

Himalayan balsam *Impatiens glandulifera*, which had previously been noted as a small stand within an area of scrub close to the north-western boundary of the survey area (adjacent to the existing culvert from the canal), did not appear to have spread outside of this area. However, a few individual Himalayan balsam plants were noted within the scrub on the banks of the pond and it could be seen within scrub outside of the survey area boundary, along the adjacent railway line.

Photograph 1: Site overview – looking north-west

Photograph 2 – ephemeral, short perennial species within hardstanding

Photograph 3 – Scrub and grassland at edges of hardstanding

Photograph 4 – dense scrub around pond, with individual Himalayan balsam plants visible

Photograph 5 – view of pond obscured by dense scrub

Photograph 6 – existing culvert, improved grassland and scrub by proposed intake.

Protected Species
No evidence of protected species was noted during the 2015 survey.

The large rubble pile (see Photograph 7 in previous report), identified as providing potential for reptiles, had been replaced by a smaller rubble pile and occasional small brash piles were also noted. This was considered to lower the suitability of the site for reptile species and it is clear that these habitats are subject to regular disturbance.

As the conditions on site remained very similar to those identified during the 2013 survey, any changes to the potential presence or absence of protected species is considered extremely unlikely.

Recommendations
The recommendations outlined within the 2013 survey report are still considered to be appropriate for the proposals.

Full details of such recommendations should be found within the 2013 survey report. However, a summary is provided below:

- Himalayan balsam and soil that could potentially harbour Himalayan balsam seeds, should be dealt with appropriately and this plant must not be spread;
- Trees should be retained and adequately protected during the works;
- Up to date Pollution Prevention Guidelines should be followed for all work, in order to prevent pollution of either the canal or the river;
- Dredging of the pond is not recommended and the introduction of a small flow of water is likely to improve ecological conditions within the pond;
- Any trenches should be covered over at night or left with a ramp/sloping end, to allow any mammals that may fall in a chance to escape;
- Similarly, any pipes over 200mm in diameter should be capped off to prevent animals from becoming stuck;
- If any vegetation clearance is required, impacts to active bird nests must be avoided;
- A Method Statement and ecological supervision will be required to ensure there are no impacts to amphibians;
- Lighting must not impact upon bats, either during the construction or during the operation. It must be low level or directional and away from the watercourses, trees and scrub, to preserve good foraging habitat for bats; and
- Workers should remain vigilant for the presence of reptiles and must contact an ecologist immediately in the unlikely event that a reptile is found.

Conclusions
The work is of a small scale and the previous ecological survey suggested it would be of a low impact. The current survey supports this claim, as there have been very few changes to the site, with the exception of the growth of vegetation that would be

expected over a two year period. Assuming that the full list of recommendations, found within the 2013 survey report, are adhered to, no additional impacts are anticipated.

I trust that the above provides enough information but please do not hesitate to contact me if you require anything further.

Kind Regards,

Sarah Stone MSc MCIEEM
Principal Ecologist

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