

## External Memo: technical note

To	Bev Pearson, Newark and Sherwood DC
From	Neil Davidson CMLI CEnv CIEEM, Lepus Consulting
Subject	Habitats Regulations Assessment record of the Appropriate Assessment
Code	LC-506 Hazelford Lock
Date	14 <sup>th</sup> March 2019
CC	-



### Summary

*This note is a record of the Appropriate Assessment process followed by Newark and Sherwood District Council for a proposed HEP scheme at Hazelford Weir, Nottinghamshire. The assessment concludes that the scheme will have no adverse effect on the integrity of any European site, either alone or in-combination with any other plan or project. Monitoring measures are recommended in this note.*

### Introduction to the Habitats Regulations Assessment (HRA)

1. The HRA relates to a planning application for full planning consent of a hydropower scheme, adjustable weir crest and associated infrastructure at Hazelford Weir, Nottinghamshire. It has been prepared in accordance with the Conservation of Habitats and Species Regulations 2017 (SI 1012) commonly referred to as 'the Habitats Regulations'.

### Summary of the conclusion of the assessment

2. The assessment concludes that the scheme will have no adverse effect on the integrity of any European site, either alone or in-combination with any other plan or project.

### Information used for the assessment

3. The Shadow HRA submitted by the applicant dated March 2019.

### **The screening of the project**

4. The project identified the Humber Estuary SAC and likely significant effects on some of its qualifying features, namely sea and river lamprey, as the trigger for HRA. See Shadow HRA submitted by the applicant dated March 2019.

### **Mitigation measures**

5. See Shadow HRA submitted by the applicant dated March 2019.

### **Appropriate assessment**

6. See Shadow HRA submitted by the applicant dated March 2019.

### **Further mitigation measures**

7. Lamprey larvae (Ammocoetes) typically drift downstream in spring, within a few days of hatching and prefer low velocity sites (~0.2 ms<sup>-1</sup>), shallow depths (30 – 300 mm) and a sand or silt based substrate with a high organic content (Hardisty & Potter, 1971 from Maitland, 2003). As ammocoetes settle in soft sediments for long periods (can be for several years), there is a possibility that they may be within excavated material. To mitigate the impact of ammocoetes that have already settled in the sediment, the first 50cm depth of sediment excavated should be hand searched for ammocoetes. This could simply involve the presence of a fisheries biologist sieving sediment, removing ammocoetes and reintroducing them back into the river. Precise details should be agreed with the applicant's fisheries ecologist.

### **Integrity test**

8. It is considered that the planning application and submitted information allows Newark and Sherwood to ascertain that the scheme will have no adverse effect on the integrity of any European site, either alone or in combination with any other plan or project. In making that decision as

the competent authority, Newark and Sherwood has taken account of the potential of the planning application proposals to contribute to cumulative effects when compared to other plans and projects. See Shadow HRA submitted by the applicant dated March 2019 for more details.

9. Natural England have been consulted on the scheme proposals and do not object to the scheme (see letter dated 12<sup>th</sup> March 2019 from Ros Deeming).

### **Assumptions and limitations**

10. See Shadow HRA submitted by the applicant dated March 2019.
11. The applicant has made an informed assumption as part of the conclusions in the Shadow HRA and addendum (dated 12<sup>th</sup> March 2019), that *'the downstream migration route for Lamprey ammocoetes will be maintained during construction works by constructing the adjustable weir section by section and part of the channel will have flow over the weir crest at all times'*.
12. To confirm that this is in fact the case, water samples should be taken in the spring time to confirm that ammocoetes are passing safely through the weir. Numbers and ammocoete condition should be recorded. Precise details should be agreed with the applicant's fisheries ecologist.
13. Besides the focus on ammocoetes, given that the HRA relies in part on mitigation, e.g. the new fish pass, to overcome identified adverse effects, it would be prudent to consider conditioning any consent with the requirement to monitor lamprey populations in and around the location of the weir, including impacts of the HEP scheme before and after construction and operation. In other words, as soon as consent is given. And the monitoring condition ought to consider whether operations be reviewed if significant adverse effects are identified on river and sea lampreys or their habitat as a consequence of operation.

## **References and reports**

- The Habitats Regulations Assessment Handbook (2013, as updated) DTA Publications.
- Hazelford Weir: Shadow Habitats Regulations Assessment Final Report (2019) Version 3. JBA Consulting. March 2019.
- Addendum to the Shadow HRA, Note to File (12<sup>th</sup> March 2019). JBA Consulting.
- Letter from Natural England dated 12<sup>th</sup> March 2019.

**- End of note -**