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Planning Department
East Staffordshire Borough Council

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Date: 12 February 2018 Contact name:
Your reference: Telephone:
Our reference: I&BPB5753L001F01 Email:
Classification: Project related

Dear Sir / Madam,

Crumpwood Weir Fish Pass – Detailed Design: EIA Screening Request

We are writing to you on behalf of the Environment Agency, as we are currently undertaking detailed design for a proposed fish pass at Crumpwood Weir, Staffordshire. We request an Environmental Impact Assessment (EIA) screening opinion in accordance with Part II of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017. This request for a screening opinion is accompanied with the following as identified in the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended):

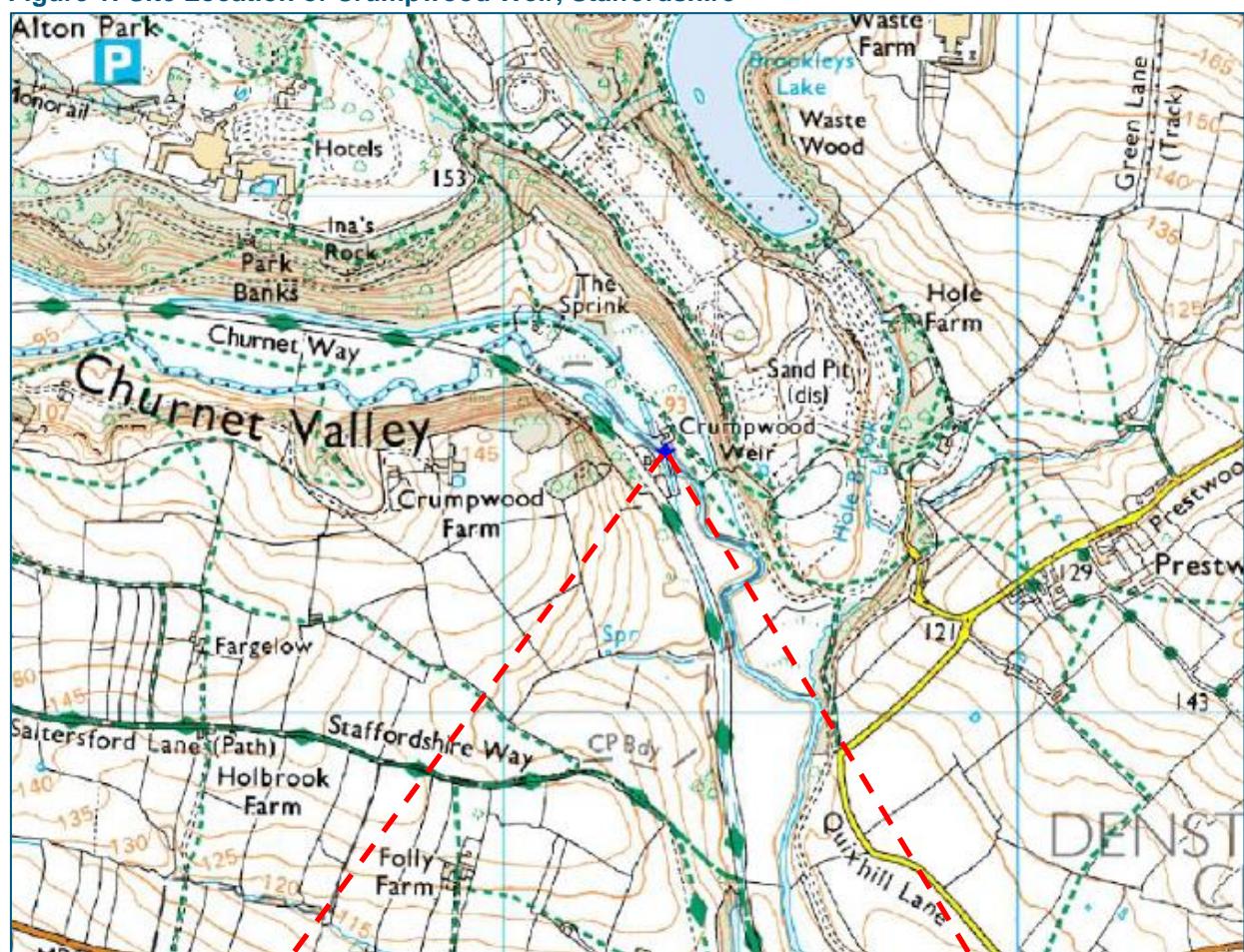
- a plan sufficient to identify the land (see **Appendix A** for site works boundary);
- a brief description of the nature and purpose of the development and of its possible effects on the environment; and
- such other information or representations as the person making the request may wish to provide or make.

It is envisioned the detailed design will be completed by end of March 2018 ready for planning submission (followed by construction of the scheme depending on available funding).

Nature and Purpose of the Proposed Crumpwood Weir Fish Pass

Crumpwood Weir is a historic weir built in the early 1800's on the River Churnet (SK0932042518), in Staffordshire (**Figure 1**). The weir has been used to both maintain water levels for navigation across the river and to provide required water levels to drive a pumping station. With such historic structures, there are a number of local organisations who are interested in both preserving and restoring the structures and mechanics around the site. At present the weir forms a significant barrier to the upstream passage of fish (e.g. Atlantic salmon) within the River Churnet making these barriers passable to migratory fish forms part of the process of improving the ecological condition of the river under the Water Framework Directive. The Environment Agency are therefore looking to implement a new fish pass around the weir and to use this as a catalyst for further restoration of the site.

Figure 1: Site Location of Crumpwood Weir, Staffordshire



The proposed Crumpwood Weir Fish Pass (the scheme) will consist of the installation of a two flight Larinier technical fish pass through the existing pump house, with the resting pool of the pass in the northern pump chamber; and the two flights of the pass being through the pumping station inlet and outlet (**Figure 1**). Further details are provided below and represented in **Figure 2** and **Figure 3**.

It will be necessary to undertake structural alterations to the building in order to fit the fish pass in, as some of the dimensions available are around the minimum technically required for a fish pass. These will all be below the floor level within the pump house so should not affect the appearance of the building. The alterations anticipated are:

- Clearance of both inlet and outlet of silt and vegetation to create a free flow of water around the weir. There are significant volumes of material to be removed in these areas.
- The upper flight of the Larinier fish pass needs to be lower than the base of the inlet channel therefore a small section will need to be broken out and to be rebuilt to support the pass.
- A means of preventing water spilling into the upper flight of the fish pass over its side walls will be required. This could be something in keeping with the structure or other as approved through planning.
- The sluices to the pump house will need to be modified and restored to allow passage of the fish pass together with providing water to the turbines for demonstration purposes.
- Some modifications will be needed to the internal structure of the pumping station to create the resting pool and allow the new structure to pass under the chambers.
- Finally, supports for the flights of the Larinier fish pass are required as in most locations they sit above the base of the structure.

Figure 2: Upper Flight of Fish Pass (through pump house)

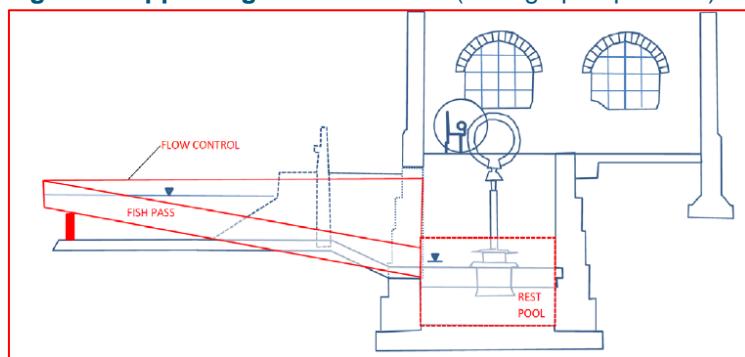
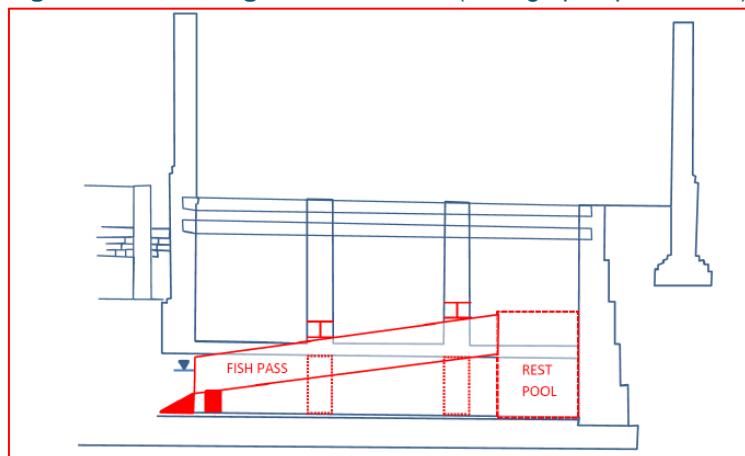


Figure 3: Lower Flight of Fish Pass (through pump chamber)



Possible Effects of the Proposed Crumpwood Weir Fish Pass

To inform this screening request consideration has been given to the possible environmental effects and risks of the proposed Crumpwood Weir Fish Pass. The possible environmental effects identified, and described below, are not likely to result in significant impacts, which will be further managed by the implementation of best practice mitigation measures, as well as mitigated through design where possible.

Human Beings

The works to the existing pump house, although extensive, will provide long term benefits in working with the community and partners to restore the pump house. The Environment Agency will look at ways in which the pump house can be opened to the public at times to increase access to this heritage asset and provided enhanced recreational benefits to the community. Furthermore, the installation of the Larinier fish pass will enable video counters and monitors to be placed at the site which would not only provide good information to the public visiting the site, but would enable monitoring of the performance of the fish pass and the health of the river. As the site is more secluded it would also be possible to introduce interpretation boards around the site to support both the fish pass and the items of wider heritage.

However, there will be temporary short term effects associated with construction of the proposed scheme including potential for works to affect access to PRoW Denstone 7 (directly adjacent to the pump house). However, management of works adjacent to the PRoW will be undertaken to ensure access is maintained for the public throughout the construction period and/or appropriate temporary footpath diversion put in place if required.

Traffic and Transport

The location of Crumpwood Weir is within a relatively isolated area of Churnet Valley and served by a single access road off Quixhill Lane. No long term impacts upon traffic and transport are predicted once the construction works have been completed for the proposed scheme, although short term temporary minor impacts upon the local road networks (e.g. traffic congestion along the access track and Quixhill Lane) are predicted. However, this will be minimised through the implementation of an Environmental Action Plan (EAP) for the project.

Designated Sites and Flora and Fauna

There are no internationally designated sites within 2km of the proposed scheme, although the scheme is located 2km from Saltersford Lane Meadows SSSI; and lies within the Staffordshire Moorlands District Council (SMDC) Nature Conservation Site.

The River Churnet supports a range of native fish species, including Atlantic salmon, brown/sea trout, dace, grayling, roach, perch and pike, although given the location of the site and distance from the tidal limit, the potential for large populations of the endangered European Eel, is unlikely.

To confirm the presence and absence of protected species and suitable habitats and further appraise the potential effects of the scheme, an Extended Phase I Habitat Survey (EP1HS) was undertaken in September 2017. This will be used to inform the proposed Environmental Report (see below) for the scheme; and further highlight the protected species surveys identified in the 2017 EP1HS, notably bat surveys. Himalayan Balsam is present on site and any works that may disturb this species will require an Invasive Species Management Plan, although given the scale of the works (the majority of which are contained within existing disturbed ground), preventative mitigation measures to minimise the spread of this and other potential invasive species will be implemented through the project EAP.

Landscape and Cultural Heritage

The location of Crumpwood Weir is not within or near any landscape designated sites, conservation sites or Tree Preservation Orders, with any long term impacts upon visual disturbance of the proposed scheme unlikely in response to the nature of the scheme (predominantly hidden in the structure of the pump house); and very low population density of the surrounding area. However, there will be short term effects associated with construction of the scheme on visual amenity (e.g. construction vehicles and equipment on site) to users of nearby PRoWs. These short term effects will be minimised through the implementation of the project EAP.

Crumpwood Weir (pump house excluded) is a Grade II Listed Building and as such fish pass options that would require extensive structural alterations to the weir or have a large visual impact were considered unfavourable for the scheme, with the preferred option of installing a two flight Larinier technical fish pass through the existing pump house having no impact upon Crumpwood Weir. However, consultation will continue to be undertaken with the County Archaeologist regarding archaeological requirements; and the Conservation Officer and Historic England in consideration of the proximity of the scheme to the heritage asset (i.e. Crumpwood Weir).

Air, Noise and Vibration

Defra, maintains a nationwide model (the Pollution Climate Mapping (PCM) model) of existing and future background air quality concentrations at a 1km grid square resolution and based on the scale of works for the proposed scheme, the pollutant concentrations would be expected to comfortably meet both the short term and annual Air Quality Objectives. The access track to the Crumpwood Weir and Quixhill Lane generate some traffic noise and vibration, but this is not intrusive or dominant. Any potential air, noise and vibration impacts are expected to be short term and of minor significance and these will be addressed through the implementation of the project EAP.

Ground Conditions

There is the potential for construction activities associated with proposed scheme to impact on existing land quality during the clearing of the outlet for the upper flight of the Larinier fish pass (see **Figure 2**), by mobilising potential contamination from pre-existing sources. Early investigations/ screening has identified pre-existing contaminates and there is a risk of mobilising. However, this will be managed through the undertaking of a detailed Land Quality Assessment and the project EAP.

Hydro-geomorphology

The proposed scheme lies within the Humber River Basin District. All works for the scheme lie within the Churnet from Consall to River Dovewater body (GB104028052652). A Water Framework Directive (WFD) Compliance Assessment will be undertaken for the scheme, which will also identify specific hydro-geomorphology mitigation measures that will minimise impacts on the identified waterbody for this project. These will be further highlighted within the project EAP.

Other Information and Representations

Based on the proposed design for the Crumpwood Weir Fish Pass and given the works do not fall within Appendix I or II of the Town and Country Planning EIA Regulations, the impacts are expected to be minor. As such, **we consider that a statutory EIA is not required** for this scheme.

However, in line with the Environment Agency's good practice procedures and as the responsible authority for managing the risk of flooding to Main Rivers in England including the River Churnet, **a non-statutory EIA is recommended with the findings documented within an Environmental Report (ER)**. This ER will accompany the planning submission of the final detailed design for the fish pass to East Staffordshire Borough Council and include the following key assessments:

- Environmental Appraisals taking into consideration the following receptors:
 - Human Beings
 - Traffic and Transport
 - Flora and Fauna
 - Landscape and Visual Amenity
 - Archaeology and Cultural Heritage
 - Air, Noise and Vibration
 - Geology, Soils and Hydrogeology
 - Water environment
- Extended Phase I Habitat Survey (completed: September 2017)
- Land Quality Assessment
- WFD Compliance Assessment
- Environmental Action Plan (for the main works)

If you would like to discuss any matters in relation to the proposed development and/or this request for a screening opinion, then please contact the undersigned

We trust that the information contained within this letter is satisfactory for East Staffordshire Borough Council purposes of providing a screening opinion for the proposed works associated with the Crumpwood Weir Fish Pass. Should you require any further information or clarification, please do not hesitate to contact the undersigned.

Yours faithfully,

Dr Peter Brunner
Senior Freshwater Scientist

