

Dowie's Mill

Plain English Non-Technical Summary

December 2018

River and Fisheries Trusts of Scotland
11 Rutland Square
Edinburgh
EH1 2AS

NOTE TO FILE

JBA Project Code 2015s3628
Contract 2015s3628 – RAFTS – Fair a Far and Dowies Mill
Client RAFTS
Day, Date and Time 12 December 2016
Subject Non-Technical Summary for Public Consultation

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1 Introduction

1.1 Background

Dowie's Mill Weir is located in the lower reaches of the River Almond, west of Cramond; the nearest address is Dowie's Mill Lane, Cramond, Edinburgh, EH4 6DW (OS NGR NT17924 75652). The weir obstructs passage by species such as salmon, sea trout, eel, sea lamprey and brook lamprey, and has been identified as a high-priority barrier for removal to restore fish passage on the Almond. The weir is located approximately 1 km upstream of Fair-A-Far Weir, 180 m downstream of the historic Cramond Brig and 320 m downstream of the A90 Cramond Bridge.



High flow conditions on 11 December 2015
River level 1.2 m, Flow 22.5 m³/s, Q5 approx.



Lower flow conditions on 21 January 2016
River level 0.67 m, flow 7.63 m³/s, Q20 approx.

1.2 Aim of the project

The Rivers and Fisheries Trusts of Scotland (RAFTS) in partnership with the Scottish Environment Protection Agency Water Environment Fund (SEPA WEF) are working to improve fish passage and enhance the local environment on the River Almond and its catchment.

The project objectives are as follows:

- restore fish passage by removing the existing weir;
- reinstate natural processes within the impounded zone and natural sediment transport processes to downstream reaches;
- avoid increasing flood risk;
- avoid damage to existing infrastructure.

2 Public Consultations and Stakeholder Engagement

Stakeholders were approached to gather their opinions and aspirations for the project. Informal and formal consultations were also undertaken to comply with planning application procedures. Details of these communications are summarised below.

2.1 Public consultation

RAFTS consider consultation with the public to be key to the success of the project. In May 2015, public meetings were held in Livingston and Cramond where RAFTS gave presentations illustrating generic options to improve fish passage and the River Forth Fisheries Trust supported this putting the project in the context of The Avon-Almond Reconnection Programme, which they are leading.

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2.2 Stakeholder Engagement / Regulatory Consultations

2.2.1 Environmental Impact Assessment

The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 require an examination of the potentially significant environmental impacts.

To understand any potential environmental impacts, an Environmental Impact Assessment (EIA) screening was undertaken – this involved providing answers to a set of questions about the proposed development in relation to characteristics, such as size of the development and impacts on flood risk, air quality and heritage. The screening was examined by the local planning authority, who responded with a screening opinion that stated that the impacts of this development did not need an EIA.

The screening request for Dowie's Mill was submitted to the City of Edinburgh Council (CEC) and a screening opinion was issued on 8 January 2016 by City of Edinburgh Council, dated 08/02/16 (this includes cover letter and table detailing the proposal in relation to EIA thresholds). This stated that an Environmental Impact Assessment (EIA) would not be required for this proposal and so no further action was required.

2.2.2 Habitat Regulations Appraisal and SNH consultation

The Habitats Regulations 2010 and The Habitats Regulations 1994 require protection for certain flora and fauna species as well as domestic and European sites such as Sites of Special Scientific Interest (SSSI) and Special Areas of Conservation (SAC). Local Planning Authorities have a duty to ensure these regulations have been followed when determining a planning application.

To assess the likely impacts of the fish pass on species and investigate whether the site is within in close proximity to the designated sites, a Habitat Regulations Appraisal (HRA) screening report was undertaken. This examined designated sites close to the weir, the likely impacts on these sites and the significance of these impacts. The report concluded that the works will not have a significant impact on any European sites.

As part of the HRA screening report, Scottish Natural Heritage (SNH) were consulted to confirm that they approved the conclusions which were drawn. Communication with SNH (recorded in emails between JBA Consulting and SNH dated from 17/02/16 to 15/04/2016) note that SNH agreed with the conclusions of the HRA screening report and no further assessment is required.

2.2.3 City of Edinburgh Council (CEC)

Pre-application discussions were held with City of Edinburgh Council (CEC) to ensure that the objectives and constraints were identified and incorporated into the data gathering, technical assessments and design.

A meeting held on 21 December 2015 was attended by consultant JBA Consulting, River and Fisheries Trusts of Scotland (RAFTS), River Forth Fisheries Trust (RFFT), SNH and a number of CEC staff including Parks and Greenspace Manager, Bridges and Structures Officer, Archaeology Officer, Planning Officer, Planning Listed Buildings and Estates Surveyor. Various aspects of the project and design work were discussed including the consents and planning application required, access and site works, land ownership and site investigation.

3 Methodology and Technical Assessments

The design of the proposed works involved a multi-disciplinary approach, involving specialists in geomorphology, fisheries ecology, contaminated sediment and waste management, heritage, landscape and visual amenity, hydrology, hydraulic modelling, and civil engineering.

A number of technical assessments were undertaken as part of the design process, which are included as Appendices to the Design Report and supporting material to the planning application. A summary of the assessments are noted below:

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3.1 Preliminary Ecological Appraisal

A Preliminary Ecological Appraisal (PEA) was undertaken, involving an Extended Phase 1 Habitat Survey. This included mapping of habitats at the site, recording any evidence of protected and notable species, and an assessment of the potential of each habitat to support such species. The PEA was undertaken by a qualified Ecologist following guidance provided by the Chartered Institute of Ecology and Environmental Management and Joint Nature Conservation Committee. As part of the ecology survey, JBA looked for any structures with bat roost potential and examined these for evidence of bat activity. The results of the PEA, both site survey and desk-based assessment, informed potential appropriate mitigation measures. We liaised with Scottish Natural Heritage regarding non-statutory sites and notable habitats (ancient woodland) mitigation, as required.

3.2 Hydrological Assessment

Flood flow and low flow (flows under normal hydrological conditions for the site) estimates were prepared by JBA Consulting using up-to-date flow data obtained from river gauges. The flows were used in a hydraulic model of the site to assess baseline water levels, as well as the impact of the proposed works on flood risk, water levels and water velocities.

3.3 Heritage Impact Assessment

A heritage assessment was undertaken to set out the heritage significance of the weir and its setting. Cramond Brig, located 180 m upstream of the weir, is Category A listed. There is a legal duty to avoid affecting the character of listed structures under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. The works should avoid adverse impacts on buried archaeological material and land drainage on the former mill site on the right bank at the head of the weir, avoiding topsoil stripping or excessive loading of the ground. Sections of the weir should be retained on either bank, so that the route of the historic structure can be appreciated. A scheme of archaeological mitigation will be required, to a brief agreed with the City of Edinburgh archaeologist. This will include a full pre-intervention survey of the weir and other structures to be affected, archaeological monitoring during works, and full excavation and recording of any features encountered during the works.

3.4 Landscape and Visual Assessment

A landscape and visual appraisal was undertaken to assess the impacts of the proposed works. Dowie's Mill Weir is located in a designated public open space. The left bank is designated as a Designed Landscape and an Area of Outstanding Landscape Quality in Local Policy. The weir is adjacent to the highly valued River Almond Walkway, an accessible footpath that is busy during summer. The impounded water (known as the 'mill pond') above Dowie's Mill Weir is valued as a tourist spot on the river, enjoyed by both locals and visitors. Cramond Brig is on UK Cycle Route One which attracts national and international tourists, as well as many locals, on a regular basis. Any temporary works will also minimise impacts on the River Almond Walkway, and this should remain open during the works.

3.5 Ground investigation

An assessment was undertaken to provide an understanding of the river bed below the weir. Three boreholes drilled downstream of the weir (one on the left bank and two on the right) indicate that the ground comprises made ground over alluvium and glacial till. The holes were up to 4.7 m deep and bedrock was not located. The bedrock is known to be more than 10 m below ground level.

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4 Proposed Works

4.1 Weir removal

A 60 m length of the weir will be removed down to natural bed level. A 12 m length of the weir will be retained at the right-hand bank. The river is thought to be artificially over-widened at this point and this will restore the river to its former condition. It will also reduce the risk of bank slips adjacent to Dowie's Mill Cottages, where the bank is steep.

4.2 Boulder bar structure

A boulder bar structure will be constructed 5 m downstream of the pipeline crossings. The boulder bar will be curved in plan to improve stability, to focus flows towards the centre of the channel and for a visually pleasing appearance.

4.3 Pool and riffle sequence

A pool and riffle sequence will be constructed between the boulder bar and existing weir. This will convey low flows and recreate natural conditions suitable for fish passage. A more natural-type pass should provide better opportunities for lamprey and eels (and indeed smaller salmonid juveniles).

5 Next Steps

Apply for planning permission from CEC.

Apply for SEPA CAR licence. A CAR licence is a permit from the Scottish Environmental Protection Agency (SEPA) to control activities within the water environment which may have adverse impacts. It is to comply with The Water Environment (Controlled Activities) (Scotland) Regulations 2011.

Notify the owners of salmon fishing rights (Crown Estates Commissioners and Rosebery Estates) and leaseholders (Cramond Angling Club) of a potential impact on their enjoyment of the right during the works.

Once planning approval has been granted and the appropriate licences obtained, the project will move forward to the construction phase.

Further Information

Further information on the project is contained within the Design Report and Appendices, the Planning Application Form and the supporting drawings.