

# Beeston – Weir Modification Project

## Construction Method Statement

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## Summary

This document outlines the proposed activities required to modify the weir crest of the side and main weir at Beeston Weir. It also includes installation of a fish easement.

The weir crest modifications involve fitting a 200 mm fixed weir crest raise to the side weir, removing a 300 mm weir crest raise to the main weir and then fitting an adjustable weir to the main weir.

The outcome of the proposed works is to increase upstream water levels during normal flow conditions but decrease upstream water levels in high flows to mitigate flood risk. The increase in upstream water levels at normal flows will help boaters navigating the river. The works would also slightly improve fish passage.

The detailed design stage would ensure that all risks of flooding are mitigated during installation and construction. However, a general description of the works is provided in this document.

## General Description of Works

The works consist of the following:

- Small cofferdam sections installed sequentially along the crests to form a dry working area
- Removal of 300 mm high section on main weir crest and installation of adjustable weir crest on the main weir
- Installation of fixed crest increases to the side weir
- Installation of flow baffles to main weir near to the north bank
- Installation of power, communications and failsafe systems

The final method statement will be subject to sign-off by representatives of CRT in order to ensure that the works do not compromise their activities and responsibilities.

## Location and Access

There are location and site plans accompanied with this application. Access would be via existing tracks to the hydropower system.

## Duration of Works

It is estimated that the work will take approximately 3 months to complete depending on weather conditions. Severe weather conditions could hold construction off until more suitable weather is apparent.

## Method Statement

<b>1</b>	<b>Site Preparation</b>
1.1	Set up a site compound incorporating storage areas for materials delivered to site, waste management facilities and sufficient space for construction vehicles to turn.
1.2	The required safety signs, fencing and signals will be installed as and when required.
1.3	Where ground conditions are unsuitable for construction vehicles, temporary geotextile track will be laid. When the relevant construction vehicles are no longer required, the track will be removed.
1.4	If works exposes any drainage lines, temporary channels or clay barriers may need to be utilised to prevent the channels from becoming the drainage route.
<b>2</b>	<b>Weir Crest Modifications</b>
2.1	To minimise flood risk, the existing beam along the main weir crest will be removed first. Remaining weir crest modifications and associated temporary works will be carried out in short sections sequentially.
2.2	Cofferdams will be utilised as temporary flow diversion works in order to create a dry working area. The flow will be diverted away from the working area and across the remaining weir sections.
2.3	Any water or rainwater in the dry area will be pumped out and discharged over to the nearest bank through a silt trap to allow any contaminated material or silt to be settled out before water re-enters the watercourse.
2.4	Any concrete works will be preceded by a weather check. Where concrete is poured, it will be left to cure for min. 3 days. Concrete pumping will take place outside the main river channel.
2.5	The adjustable weir crest and associated foundation works will be installed as per the manufacturer's recommendations, in short sections sequentially.
2.6	The fixed crest raise will be applied to the side weir, in small sections sequentially.
2.7	The control system for the adjustable weir crest, including power cables, communications cables and failsafe mechanisms, will be installed.
2.8	Temporary works will be removed as soon as each section of construction is complete.
<b>3</b>	<b>Fish Easement</b>
3.1	These works would be carried out when the appropriate section of weir has been made dry using method described in section 2.2.
3.2	Bolt flow baffles to main weir, near north bank.
3.3	Remove temporary works.