



# Westcountry Rivers Trust

**Invitation to provide Quotation for the Provision of**

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**Detailed Design for the Removal of Dunmere Weir  
and Modification of adjoining Leat**

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**To be supplied to the Westcountry Rivers Trust**



To whom it may concern,

**Invitation to Provide Quotation for Detailed Design for the removal of Dunmere Weir and modification of adjoining leat**

You are invited to submit a quotation for Detailed Design for the removal of Dunmere Weir and modification of adjoining leat. Contractors' input (ECI) is welcomed regarding the precise method used to remove the structure and modify the leat to retain some flow.

Project details are listed below. The elements of contractor input required relates to the technique to be used to carry out the assessment.

The documents supplied provide much of the detail required for you to supply a quotation for the proposed assessment.

The works will be contracted under the NEC4 Professional Services Short Contract. While you are required to submit a single detailed quote covering the three components:

- A) Leat options appraisal and outline design
- B) Weir removal detailed design
- C) Leat detailed design

The NEC contract will be issued in two stages: Stage A will cover the options appraisal and outline design for the Leat, followed by Stage B and C together, covering the detailed designs. This phased approach ensures that the best option for the Leat is selected. Further details are provided within this ITT.

Your quotation must be received by us no later than **5pm on 11<sup>th</sup> October 2024**.

When making your submission please include a method statement and indicate how you intend to undertake the surveys within the allotted timeframes. Should you be appointed to undertake the proposed works, copies of your Liability Insurance cover and Risk Assessments will be required.

Please contact us should you require clarification or further information. We look forward to receiving your submission in due course.

Yours sincerely



Craig Renton

**Westcountry Rivers Trust**

## **Site Location**

Dunmere weir and associated leat are located at Bodmin, Cornwall (Grid Ref: SX051681) on the River Camel which sits within the River Camel SAC and River Camel and Tributaries SSSI. Access to the site is primarily used via the Camel trail access track, by the A389, which runs along the true left hand bank. This can be accessed by foot or by a suitable vehicle but note only access to the weir will be available by this route. Access can also be arranged via the true right hand bank by foot only which will provide access to the leat and weir.

**You are welcome to visit the site by arrangement.** Please let the Project Officer know if you intend to visit the site to prepare your tender response. A member of WRT staff will organise permission and may accompany you to the site.



*Figure 1: Location of Dunmere Weir and leat area.*

## **Site Information**

Dunmere Weir is an 18<sup>th</sup> Century structure and was built to serve the 600 metre leat which runs adjacent to the River Camel and was used to serve The Old Mill downstream. Built as a two stage structure, comprising of stone with more recent multiple cappings of concrete. The structures both have low flow sloping central sections, thought to facilitate fish passage. The lower of the two structures have failed and started to erode causing a breach on the left hand bank. There is also deterioration and eroding in the central section of the lower structure which has exposed steel rebar. Overall, both structures are in poor condition and have signs of damage and disrepair which is especially visible in low flows. The structure is believed to be built on bedrock with most of the

upstream extent also comprised of bedrock outcrops and is unlikely that major alterations to the river bed will occur if the weir is removed.

Through the use of high and low flow SNIFFER surveys, the structure has been highlighted as being a high impact barrier to fish migration. In addition to this, the structures are disrupting natural river function and hindering the transport of sediment, nutrients and increasing temperatures. The structures have also created an impounded reach for approximately 200 meters upstream producing sub optimal habitat.

The leat which is fed by the impounded reach extends approximately 600 meters downstream which once fed The Old Mill House. The leat has several overflow sections which have degraded and have areas of disrepair which has caused areas of breaching, these flows all enter back into the main river at several locations. Due to the historic nature of the leat there is currently no abstraction license for the water which is abstracted from the river. The leat gate has historically failed on a number of occasions but has recently been boarded to reduce the amount of water it takes. There is no screen on the entrance and exit of the leat and there is a large drop of approximately 2.5 meters at The Old Mill which is a particular problem for downstream migrating fish and would likely result in injury and/or fatality

There has been extensive work carried out at the site which to date has informed much of the outline designs for removal and any work which could impact water levels in the leat. A flood risk assessment (FRA) has been undertaken to determine flood risk and change in water levels both upstream and downstream. Ground investigations have been undertaken to identify the presence of the underlying bedrock and obtain approximate levels to understand the likely riverbed profile should the weir be removed. Sediment analysis has been undertaken to determine if there are any pollution concerns from the release of sediment upstream during the removal process. An outline design for the removal of the structures and associated sketches have been produced which also mentions some options for the leat. A BS5837 tree survey and arboricultural impact assessment has been undertaken to assess the quality of trees on at the site, provide an Arboricultural Impact Assessment. Heritage reports have also been produced which outlines the history and background of the structures. A Preliminary Ecological Appraisal has also been produced which outlines any species which may be impacted by the works, especially those with any level of protection and recommended ecological surveys to be undertaken during or prior to the removal. All of these are available on request if needed to produce your quote for the works.

The successful contractor will be expected to attend a site visit with Westcountry Rivers Trust, Environment Agency, Natural England, and possibly the landowners to discuss options which will be suitable to all.

## **Proposed Scope of Work**

### **A) Leat options appraisal and outline design**

A high-level options appraisal report detailing the findings of the appraisal which should include all recommended options which could retain flow within the leat following weir removal ensuring all options do not impact the long-term integrity of the current ecological regime within the leat and wider area. The report should include a structural assessment to review the current condition of the leat and associated leat gate and overflow sections and their capacity to manage and hold water and how this will impact any new options that may be considered. The report should include conceptual designs for the top three scoring proposals based on a cost – benefit analysis. The cost-benefit analysis should include but not limited to environmental benefit, site compatibility, buildability, aesthetics, maintenance, heritage, installation cost, ongoing cost and suitability (emphasis should be placed on minimising maintenance and ongoing cost). In addition to this a cultural and heritage assessment should evaluate the impact on historical and cultural features associated with the leat.

### **B) Weir Removal detailed design**

Design the demolition or dismantling process for the structures to include the logistics of the removal, including access routes, machinery needs, and material disposal or use within the project area. To ensure scour holes directly downstream of the structure are filled with site won stone to reestablish a more natural riverbed gradient. This should also include methods to manage sediment that has accumulated upstream to either include relocation of sediment or a method of release which minimises impacts downstream. Although a preliminary assessment in the outline design and a more comprehensive assessment during the ground investigations of both the stability of riverbanks and bed material has been made it must be ensured that these are not compromised by the removal.

The production of a thorough report that includes all design details, analyses, and plans, serving as the basis for the removal. This should include construction drawings providing detailed drawings for use during removal, including plans, sections and details and a detailed method statement outlining the step-by-step process for the removal. Appropriate risk assessments will be required for all elements of the services. Under CDM 2015 this includes a Designers Risk Assessment (DRA). The report should include comprehensive cost estimates for the removal of the structures.

### **C) Leat detailed design**

Once an option has been selected from the options appraisal and deemed as the most suitable for the site and has been agreed by stakeholders this will need to be progressed to detailed design. The detailed design should include the same level of detail as the weir removal and be included in the same plans to be able to be delivered in conjunction and as a package one released for construction.



*Fig 2: View looking upstream at Dunmere Weir*



*Fig 3: View of the impounded reach looking upstream from the Weir*



*Fig 4: Entrance of leat on righthand bank of main river and weir*



*Fig 5: Furthest upstream overflow channel and potential bypass channel option*



*Fig 6: Downstream view of leat*

## Introduction & Overview

### A. Company Background

**Westcountry Rivers Trust** (WRT) is an environmental charity (Charity No. 1135007, Company No. 06545646) established in 1995 to secure the preservation, protection, development and improvement of the rivers, streams, watercourses and water impoundments in the Westcountry and to advance the education of the public in the management of water.

### B. Background to the Project

Westcountry Rivers Trust has sought to improve stocks of migratory fish such as salmon and sea trout throughout the entire Westcountry and have managed and delivered a number of projects to facilitate this. Funded by the Open Rivers Programme and the Environment Agency and in partnership with the Environment Agency and Natural England, we aim to:

- improve upstream and downstream fish passage
- improve in river and bankside habitat
- improve spawning habitats
- aim to increase numbers of juvenile salmon and sea trout
- Improve overall river and associated ecological health

The natural capital in Cornwall has been diminished by a wide range of factors including the construction of weirs that can affect fish passage and the loss of habitat; both of which are essential for migratory species such as salmon and sea trout.



We assess and aim to improve major barriers to upstream and downstream fish migration, simultaneously providing a benefit to the native stocks of wild brown trout, eel, bullhead and brook lamprey which also need to move up and down the river.

### **C. Background to the Services Required**

It is generally accepted that fish stocks are in decline and that salmonids in the South West are no exception. It is also generally accepted that fish passage in freshwater habitats is one of the key requirements for healthy populations, particularly migratory salmonids.

### **D. Services Required**

- High level options appraisal of the leat and options to maintain flow post removal with suitable option to be agreed by all stakeholders.
- Detailed Designs (RIBA Stage 4) for Weir removal, including any mitigative habitat enhancement to improve upstream and downstream fish passage for all species, as far as practicable.
- Detailed Designs (RIBA Stage 4) for leat modification to be included within the designs for removal.
- Services & Utilities Checks will need to be performed for preliminary investigations. WRT expects the awarded contractor to perform their own searches to confirm design feasibility.
- Production of a Location Plan and Site Plan. Plans to be as per Cornwall Council's planning permission specification.
- Appropriate risk assessments will be required for all elements of the services. Under CDM 2015 this includes a Designers Risk Assessment (DRA).
- The Consultant shall ensure the scheme is designed to gain planning approval and any other associated approvals and to be acceptable to statutory and key stakeholders.
- The Consultant shall contribute monthly to the updates to the project risk register.
- The Consultant must ensure that all elements conform to all relevant British and European Standards, and in compliance with the latest edition of:
  - Environment Agency Fish Pass Manual
  - CIRIA River Weirs - Design, maintenance, modification, and removal
  - Civil Engineering Specification for the Water Industry, 7<sup>th</sup> edition

### **E. Site Location Plan**

Please refer to figure 1 and associated photos and grid references. If contractors wish to visit site prior to providing their quotations, WRT will arrange access and accompany you to site.

### **F. Special Site Considerations**

The site and its surroundings lie within the Camel Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC), therefore, all actions pertaining to the services must seek to minimise all environmental impacts.

## G. Timescale

The following timescales are suggested to allow the facilitation of works.

| Date                                  | Action  |
|---------------------------------------|---|
| <b>20<sup>th</sup> September 2024</b> | Invitation To Tender released.  |
| <b>30<sup>th</sup> September 2024</b> | All queries to be submitted.  |
| <b>7<sup>th</sup> October 2024</b>    | All queries to be addressed and returned to all applicants.   |
| <b>11<sup>th</sup> October 2024</b>   | Quotation return deadline.  |
| <b>18<sup>th</sup> October 2024</b>   | After quote evaluation, the successful Contractor will be awarded an NEC4 contract for Part A – Leat Options Appraisal. |
| <b>15<sup>th</sup> November 2024</b>  | Leat options appraisal complete.  |
| <b>22<sup>nd</sup> November 2024</b>  | Once the Leat design is selected, an NEC4 contract will be awarded for Parts B and C – detailed designs.                |
| <b>9<sup>th</sup> December 2024</b>   | Progress update with Project Manager and Contractor.  |
| <b>9<sup>th</sup> January 2025</b>    | Progress update with Project Manager and Contractor.  |
| <b>31<sup>st</sup> January 2025</b>   | Detailed Designs complete.  |

### 1. Application Details for Respondents

This section provides instructions to be followed in responding to this ITT. Included are Response Guidelines and WRT contact information.

#### a. Respondent Guidelines

You are required to submit a written proposal. This can either be sent as a hard copy or electronic copy (contact details below) by the deadline stated above. All proposals should include the following:

- Details of company experience in barrier removal, fish passage or river engineering and hydrogeomorphology design.
- Costings to be broken down as the following;
  - A) Leat options appraisal and outline design to be quoted in full and cover all detail
  - B) Weir Removal detailed design to be quoted in full and cover all detail
  - C) Leat detailed design to be quoted as an approximate priced category response i.e simple design price £X, technical design price £X, and highly technical design price £X.
- An estimation of timescale and outline programme.
- Method Statement.
- Details of staff to be delivering the work including relevant experience (e.g. CVs).

- Current insurance certificates for Employer Liability, Professional Indemnity (where appropriate) and Public Liability.
- Completed WRT H&S Contractor Assessment Form.

You are expected to supply all required information, or clearly state the reason for not being unable to do so.

In submitting a quotation, you are stating you are suitably qualified and experienced in work of this nature. If your submission is successful and the contract awarded, you are also obliged to provide the following:

- Risk Assessment
- Current insurance certificates for Employer Liability, Professional Indemnity (where appropriate) and Public Liability.

Any assumptions used in preparing responses should be clearly stated. Any appropriate supporting documents e.g. programmes, plans, company brochures, organisation charts should be included with the tender submission.

#### **b. Timetable**

The deadline for submission is 5pm on Friday 11<sup>th</sup> October 2024; any submissions received after this date will not be considered. Further timetable details are provided in Section G above.

#### **c. Full Contact Details**

**Contact Name:** Craig Renton

**Email Address:** [craig@wrt.org.uk](mailto:craig@wrt.org.uk)

**Full Address:** Westcountry Rivers Trust  
Rain-Charms House  
Kyl Cober Parc  
Stoke Climsland  
Callington  
Cornwall  
PL17 8PH

**Office Telephone:** 01579 372140

## **2. Quote Assessments: Evaluation and Process**

A set of evaluation criteria will be used by WRT for the evaluation of every compliant submission.

Within each stage an initial evaluation will consider if every requirement contained within the ITQ has been fulfilled. The evaluation criteria will be based upon price (40%) and quality (60%) with quality being assessed on 'ability to meet the requirements', 'delivery / timescales' and 'Staffing'.

The Final Score is the sum of the Price score and Quality score. The winning proposal response will be that representing the Most Economically Advantageous Tender (MEAT) based on the above valuation.

If you have any queries, please do not hesitate to contact WRT.

| Scoring Matrix for Technical and Quality Criteria |                      |  |
|---|----------------------|--|
| Score   | Judgement            | Interpretation   |
| 50  | Excellent            | Exceptional demonstration of the relevant ability, understanding, experience, skills, resource and/or quality measures required to provide the services/supplies/works. Full evidence provided where required to support the response. |
| 40  | Good                 | Above average demonstration of the relevant ability, understanding, experience, skills, resource and/or quality measures required to provide the services/supplies/works. Majority evidence provided to support the response.          |
| 30  | Acceptable           | Demonstration of the relevant ability, understanding, experience, skills, resource and/or quality measures required to provide the services/supplies/works, with some evidence to support the response.                                |
| 20  | Minor Reservations   | Some minor reservations of the relevant ability, understanding, experience, skills, resource and/or quality measures required to provide the services/supplies/works, with little or no evidence to support the response.              |
| 10  | Serious Reservations | Considerable reservations of the relevant ability, understanding, experience, skills, resource and/or quality measures required to provide the services/supplies/works,  |
| 0   | Unacceptable         | Does not comply and/or insufficient information provided to demonstrate that there is the ability, understanding, experience, skills, resource and/or quality measures required to provide the services/supplies/works,                |

### 3. Confidentiality

By submitting a response, you are committing to an understanding of the requirements and have sufficiently addressed all aspects of the ITT. All information you have provided, such as prices, has been checked to be correct and as intended.

All information supplied by WRT in this Invitation to Tender, and any further information supplied during the procurement process is confidential and must not be shared with any other organisations unless WRT give permission in writing. The confidentiality extends to all recipients of this information.

### 4. Finance

- This project is financed under the Open Rivers Programme.
- When invoicing, the invoice must clearly state the awarded NEC4 contract.
- Invoicing terms will be one month in arrears with undisputed invoices being settled within 30 days.

### 5. ITT Acceptance

To simplify exchange of information regarding this Invitation to Tender please nominate one person (point of contact) with relevant telephones and email address.

Please direct any questions regarding this ITT content or process to WRT. All questions should be submitted in writing either by post or email to [craig@wrt.org.uk](mailto:craig@wrt.org.uk)

Where there is a valid reason, WRT reserve the right not to accept your submission or any other quotations received. WRT are not liable for any cost you may incur in the preparation of your quotation.