**Flow Monitoring Structures:**

**North Pennines & Cumbria**

**CA18/1/10/2542**

**Project Scope**

**Return Deadline Friday 20 January 2017 at 1600hrs**

# 

# Overview

## Contractual References

This tender will be associated with Coal Authority reference CA18/1/10/2542

The conditions of contract are the Coal Authority Works & Services contract (2009).

## Scope

## The Coal Authority wishes to appoint a suitably experienced contractor (or contractors) to carry out a flow monitoring options assessment followed by installation of flow monitoring structures at four mine water discharges in the North Pennines and Cumbria.

Flow monitoring is required to assist in characterisation of abandoned mine water discharges to determine the potential for treatment. Continuous flow measurements are required in conjunction with spot flow gauging and water quality data.

Flow monitoring is currently being undertaken at all of these sites but none of the installations are providing quality data, due to leaking, submerged or bypassed structures. The sites will be visited monthly as part of a standard monitoring round (not part of this tender).

The scope of this commission is to design and install monitoring structures and data loggers at each site **by 31 March 2017**, capable of the following:

• Continuous flow measurement (15 min intervals)

• Accurate to ≤5% error

• Data available in excel compatible format (.csv or similar)

• Data in standard format (e.g. L/s averaged over measurement period, or instantaneous values) to allow easy interpretation

• Not causing any notable increase in flood risk.

• Designs to conform to relevant standards e.g. BS ISO 1438 (2008), ISO 4360 (2008), ISO 4359 (2013)

Consideration needs to be given to safe and easy access to allow data download and water quality samples.

Any fixings in adit structures would need to get approval and should be removable.

We expect the options assessment for each site to include;

(i) Site visit

(ii) Report to include the following;

* Potential flow monitoring options including data loggers which must be appropriate to each site, giving due regard to site specific constraints.
* Pros and cons of each option to include items such as access, maintenance, power, accuracy, costs, flow ranges and potential for flooding.
* Estimated costs for construction, including installation of equipment.

**You are invited to bid for any number of the four schemes but you must be capable of delivering all schemes that you bid for by 31st March 2017.**

## Locations

## Site 1: Sharnberry

## Grid reference: 401230, 530790

## Expected flow range: 7 – 28 L/s

## Access: Along a track which is driveable

## There is existing flow monitoring at Sharnberry through a flow meter installed in a pipe through a temporary dam. There is also a v-notch weir box which is currently submerged and is known to overflow during high flows. The temporary dam requires frequent maintenance to ensure water doesn’t bypass the flow meter.

## Site 2: Killhope – Park Level

## Grid reference: 382600, 543070

## Expected flow range: 2 – >40 L/s

## Access: Through the museum. Any materials would have to be carried by hand into the mine.

This site is located within the Killhope Mining museum. It has a similar existing flow monitor set up to Sharnberry, with a pipe through a temporary dam.

There is no weir box. A v-notch plate has been installed at the end of the dam to ensure the flow logger is fully submerged (not shown in the photos).

This site requires frequent maintenance to the dam structure and is known to overtop during high flow rates.

There are constraints on what fittings can be attached to the adit walls; anything attached should be able to be removed.

## Site 3: Barneycraig

## Grid reference: 380344, 546810

## Expected flow range: 2 – 60 L/s

## Access: Site access is good, with a driveable track. There are access issues to the existing monitoring location, however alternative locations are suggested.

The current monitoring consists of a (broken) thin plate weir installed inside a small adit at the side of a river. Pressure sensors provide a record of the water height.

Access to this adit includes crossing a river and the bank sides are becoming less stable.

There is an alternative location where a weir or other flow monitoring device could be installed. There is a restriction on any digging at the site, due to archaeological heritage constraints so another alternative could be to install a monitoring device inside a new section of pipe, although installation of a device may be difficult here. ,

## Site 4: Gategill

## Grid reference: 332495, 526140

## Expected flow range: 4 – 10 L/s

## Access: Good access to the site, access to the adit requires walking along a river bank.

The existing monitoring comprises a thin plate weir box which is currently submerged. Works have been undertaken which have changed the course of the main river (which the water from the mine adit feeds) causing pooling of the water in front of the weir box.

## Indicative Timetable

Below is detailed the indicative timetable of events.

|  |  |
| --- | --- |
| **Task** | **Time Scale** |
| Invitation to Tender and upload to Contracts Finder | 21 December 2016 |
| Submission of Tender Deadline | 20 January 2017 |
| Assessment & Award \* | w.c. 30 January 2017 |

\* Any changes to indicative timescale will be notified

## Pricing

Tenderers are requested to provide 2 priced elements:

1. A fixed price for an options assessment for each site - pricing should include:

* A summary of the costs for a site visit and the options report.
* A detailed breakdown of allocated roles, and hourly rates of proposed team members. (If successful, these rates will form the agreed rates for future works undertaken as part of this contract)

1. Indicative pricing for installation of a standard weir design (as per tender document TD-002-P1 - Monitoring Structure Inside Adit) to include:

* Specifications compliant with the output requirements as noted in the tender documentation
* Indicative pricing for installation based upon the attached standard weir design, and site conditions as per our Killhope (Park Level) site.
* A breakdown of allocated roles and hourly rates, estimated materials, plant and labour costs and any sub-contractor mark up (if applicable)

(This indicative pricing is to allow for comparison purposes only)

The Rates submitted should only include those relating to hours of work and administration overheads. Mileage and subsistence should be detailed separately.

The two pricing elements will be equally weighted when assessed.

## Tender Return, Assessment & Criteria

The tendering Contractors are to ensure that the registered contact details on the eTendering portal are correct for this process.

In order to register please log on to [www.coal.bravosolution.co.uk](http://www.coal.bravosolution.co.uk), following the links and should you have any difficulties with this procedure, please contact Bravosolution, the Authority’s provider, on 0800 368 4850 (free phone number), who will assist you throughout the whole procedure at any time.

The tender will be awarded on the basis of the most economically advantageous tender and will be assessed based upon the following weightings

**70% Quality**

**30% Commercial**

The documentation to be submitted is summarised.

One Quality Submission is required on the eTendering portal.

The Financial submission for the project is to be submitted on the eTendering portal.

**Quality Scoring Assessment**

|  |  |  |
| --- | --- | --- |
| **Assessment** | **Meaning** | **Score** |
| Adds Value | The evaluator believes that as well as meeting the requirements in all respects the proposal describes additional features that will benefit the Authority | 5 |
| Fully Acceptable | The evaluator is fully satisfied that the proposal meets the requirement in all aspects | 4 |
| Minor Reservations | The evaluator is confident that the supplier has the ability to meet the requirement but has some minor reservations | 3 |
| Significant Reservations | The evaluator believes the supplier has the ability to partially meet the requirement, but has some major reservations about the approach or solution proposed. The supplier has not met the minimum requirements as specified. | 2 |
| Unacceptable | The evaluator believe that the evidence fails to show that the supplier is capable in the requirement area | 0 |

**Minimum mark for each element of the quality assessment will be 3**: the evaluation panel is confident that the supplier has the ability to meet the requirements but has some Minor reservations.

**A score of 2 or less will result in a non-compliant bid** and the submission will not progress to the financial evaluation.

**Quality Assessment – Details**

See below details, requirements and weightings for the quality elements of this opportunity

|  |  |  |
| --- | --- | --- |
| Quality Q No. | Question | Weighting |
| 1 | Please provide by way of attachment, evidence of three previous schemes you have worked on relevant to the scope of this contract.  Include information on the site, access, installation type, scheme size, equipment, and provide client contact details for references.  How have you ensured that structures could be removed without damage to walls/ floor/ river bed? | 30 |
| 2 | How many flow monitoring specific installations has your organisation completed in the last 12 months?  Please summarise the total by geographic spread and size.  Give examples of 3 different types of structures you have experience of, where they have been used and pros and cons of each. | 30 |
| 3 | By way of an attachment please confirm what experience you have in challenging client specifications for specific sites to deliver a better outcome – please provide examples of situations where you have positively challenged a client brief | 10 |
| 4 | For all of the sites for which you are bidding please provide by way of an attachment a programme / Gantt Chart for the design and installation of the structures we require by 31st March 2017.  This will allow us to evaluate whether you have sufficient personnel and resources to meet our deadlines. | 30 |