The Coal Authority

Resolving the impacts of mining

Flow Monitoring Design & Installation Framework

Coal Authority reference CA18/1/10/2549

Scope

1. Background

The Coal Authority was established by Parliament to undertake specific statutory duties, set out in the Coal Industry Act 1994, associated with licensing coal mining operations; managing property and the historic legacy arising from the ownership of the coal reserves and underground workings; settling subsidence damage claims and providing access to coal mining information. It employs 200 staff, based mainly at the head office in Mansfield with some field staff remotely based in order to enable a fast response to incidents in the coal mining areas. The Authority is funded by Grant-in-Aid from the Department of Business, Energy and Industrial Strategy (BEIS). The Authority takes pride in its achievements, quality and motivation of staff, and is focused on delivering its high level objectives sustainably.

We have a remit to protect the environment by remediating pollution from abandoned coal and metal mines throughout the UK, in partnership with BEIS, the Environment Agency and the Department for the Environment, Food & Rural Affairs (DEFRA)

One aspect of this remediation programme includes the characterisation of mine water discharges to determine the potential for treatment. To achieve this, flow measurements are needed in parallel with water quality data.

The majority of monitoring sites are in remote upland locations without electricity or other services. Thin plate weirs are the primary method utilised to measure flows at existing sites, although other installations may be required in certain circumstances.

Installations may require provision of suitable access i.e. steps, trackway etc.

Many monitoring points have loggers installed to provide continuous flow measurements and these are downloaded when our technician visits site to take measurements and water samples.

We are seeking to appoint a number of suppliers to a flow monitoring design & installation framework for structures (predominantly weirs) and associated infrastructure (i.e. stilling tubes and/or gauge boards) and associated enabling works at sites across the UK which will run for four years from September 2017.

This framework will be split into the eight lots below. There is no limit (or minimum requirement) to the number of lots that one organisation can be awarded.

This lotting structure should be read in conjunction with the regional lots map also provided as part of this tender

Lot No.	Service	Region
1	Design	North
2		Central
3		Wales & West Midlands
4		South West
5	Installation & Enabling Works	North
6		Central
7		Wales & West Midlands
8		South West

Example scopes for each works package are given below; the actual scope of works will depend on site specific requirements:

Example scope of works (design):

- Undertake site walkover survey; provide solutions to any access issues.
- Provide technical details of different measurement structures which may be suitable to allow collection of data.
- Provide pros and cons of different options.
- Give advice in order to determine how best to construct and install the structure compliant with health and safety considerations.
- The Coal Authority projects adhere to CDM principles and this should be reflected in any design.
- Provide estimated costs for installation and purchase of necessary equipment.

Example scope of works (install):

- Give advice in order to determine how best to construct and install the structure.
- Provide estimated costs for installation and purchase of necessary equipment.
- Undertake installation, compliant with design including any required enabling and access works and Health, Safety, Environment & CDM requirements.

Constraints

There are several constraints that need to be considered when designing or installing structures at Coal Authority monitoring sites, such as:

- Designs and installations to conform to relevant standards e.g. BS ISO 1438 (2008), ISO 4360 (2008), ISO 4359 (2013
- The monitoring sites may be in remote locations with limited vehicular access
- 3rd party approvals may need to be in place prior to works commencing, e.g. Environment Agency, land owners, English Heritage (timescales for which should be included in programming)
- Structures may need to be inside mine adits with associated H&S, design and install constraints
- Flood risk needs to be considered to avoid increasing the risk by raising water levels behind installed structures.