**29/11/22: WEMS\_P1\_Data.**

**Data skills Framework for Water Monitoring** **- proposal for scoping study.**

**Background**

The EA (Environment Agency) is developing a strategy for our water environment monitoring that will provide a long-term direction for our monitoring assessment and reporting- building an approach and service fit for the future.

Our vision is that ‘monitoring is an essential service to society which produces high quality scientific, open data that empowers people, businesses, government, and communities to make the best decisions they can to protect and restore the environment for people, nature and the economy.’

Our strategy will build on existing work to evolve our approach to both monitoring the water environment, and using data and information and communicating our findings, and will reflect all our monitoring: groundwater, coasts and estuaries, rivers, and lakes, and includes the collection, analysis, archiving and reporting of data and information related to measuring water quantity (flow, level, rainfall) and water quality (chemistry, ecology (including fish), morphology).

Data is our biggest asset in monitoring and we want to build a collaborative approach to data skills and literacy which will help us and others to better understand, communicate and report on environmental trends, pressures, risks, and interventions at a local and national level. This is a long term endeavour, and our first step is to build on the current skills in our workforce- increasing confidence in accessing, using, and transforming a wide range of data into information to support environmental decision making and prepare for future reporting.

**Summary of the brief**

This Scoping Study, proposing to design a high level approach to our current and future data skills needs (with a view to building detail into this approach in future years) this could include:

* mapping our data ecosystem to understand how value flows through the business ecosystem;
* plan the technical and organisational relationships needed to make the most of data held by us and other organisations;
* recommendations for future work and research;
* building blocks for a data skills framework for monitoring to help us and our partners develop an effective balance of data skills needed to work with a wide range of data.

The main objective will be to collaboratively design the foundations for a data skills framework that will support our staff and partners to deliver transformational improvements in the way we analyse data, report, and communicate on the environment.

The benefits of this work would be:

* Future upskilling staff across the monitoring business in data literacy, and improving resilience;
* Improving our ability to take advantage of the latest technologies and ways of working;
* Increased collective understanding of the environment drives better decisions which results in improved economic and environmental outcomes.

**Proposed approach**

We propose that we seek the advice of a specialist and experienced professional data organisation to develop a creative approach to achieving our objectives.

We envisage this research to include virtual participative workshops and discussions with key members of the Environment Agency as well as written recommendations and potential use cases and prototypes.

We will be expecting:

* The consultant to work with the lead to run workshops as required;
* A written report which details the approach, findings, outputs, and next steps;
* Visual guides and aids as appropriate;
* A feedback session / debrief with the supplier (this can be held digitally)

The Environment Agency is committed to equality, diversity, and inclusion, and to reducing our environmental impact as we move towards our goal of Net Zero by 2030. We would like to work with suppliers who share our aspirations.

**Budget**

The Monitoring and Commissioning team have a budget of up to a maximum of £47,000 to procure a market research supplier to conduct this research.  This will need to be spent in full by the end of the 2022/23 financial year.

**Timeframes**

This research needs to be completed before the end of the 2022/23 financial year. Our preference is for workshops to take place late Jan/early February 2022. Please see the draft outline timetable below.  It should be noted that once the timetable has been agreed with the successful supplier, then deadlines should be stuck to. Any missing of project deadlines may mean that the final deadline may be missed.

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| **Date**  | **Activity**  | **Responsibility**  |
| **October - November 22**  | Review and sign off on project brief  | Monitoring Team |
| **November 22**  | Draft tender brief & go out to tender   | Monitoring Team |
| **November - December 22**  | Review applications and appoint supplier  | Monitoring Team |
| **December 22**  | Obtain Purchase Order number\*  | Monitoring Team |
| **December 22**  | Set up meeting with successful supplier  | Monitoring Team |
| **December – January 23**  | Study design & sign off  | Monitoring Team |
| **January 23**  | Planning and delivery of workshops  | Supplier  |
| **February – March 2023**  | Analysis, reporting & presentation of results   | Supplier  |

The successful supplier will be required to provide a more detailed timetable including sign-off dates for drafts and final versions.

\* Please note that the supplier is not authorised to start on any work until they receive a valid Purchase Order number.