

**Job Title**: Hydrologist

**Department:** Technical Services

**Reports to:** Technical Lead - Water

**Direct Reports:** None

**Grade:** CA5

**Main purpose of the job**

* To provide hydrological and hydrometric services to support and advise the Mining Remediation Authority’s operational activities, and its strategic mine water programmes.
* To support the metal mines programme by ensuring that appropriate monitoring data is collected, and, based on this data, to provide professional hydrological and hydrometric advice and reports.

**Responsibilities**

**Specific**

* To provide flow monitoring expertise, design and undertake, or oversee, flow monitoring surveys.
* To analyse and appraise flow monitoring data, as collected by the Mining Remediation Authority’s contractors, and to identify data quality issues, and propose solutions.
* To specify flow monitoring structures (typically thin plate weirs, or flumes), and instruments, suitable for the continuous recording of flows. To work with project managers, consultants and contractors, to ensure new structures are installed with an appropriate balance of time, cost, and quality.
* To understand relevant standards (BS ISO, MCERTS etc.), and advise if current, or proposed structures sufficiently meet those standards.
* To investigate flow monitoring issues at operational mine water schemes and propose solutions for implementation by contractors.
* To contribute to the development of the environmental data management system or similar databases to store and graphically present monitoring data, with an emphasis on continual improvement of quality and timeliness of data entry and data management.
* To develop and maintain an expert knowledge of monitoring techniques and equipment, including flow monitoring structures, and advise the team in developing future strategies for monitoring.
* To provide advice to projects needing to apply for Environmental Permit to discharge water, including the provision of suitable flow datasets, for instance by generating a site-specific flow duration curve.
* To provide professional hydrological advice to support the metal mines programme, working with project managers to ensure appropriate monitoring data is collected, and that implications and any project risks are clearly communicated.
* To occasionally determine the relative impacts of both point and diffuse sources, by analysing flow and chemistry data at catchment scale, using appropriate source apportionment techniques, hydrological tools, and evidence based models.
* To support the Mining Remediation Authority’s mine water projects where dispersion modelling work is required, primarily by engaging with specialist consultants. Also to present and discuss findings with regulators.
* To occasionally support the Mining Remediation Authority’s mine water projects where flood risk work is required, either by undertaking the work, or reviewing that of consultants. Also to present and discuss findings with regulators.
* To occasionally provide hydrologic input to the design of mine water treatment schemes, typically comprising settling ponds, and reed beds, as required.
* To occasionally contribute to commercial work as opportunities arise.
* To produce professional technical reports, on hydrology and hydrometry, for clients which may be factual, or may present interpretations of complex situations.
* To promote the Mining Remediation Authority as an expert by writing technical papers, giving presentations, or by other appropriate means.
* To conduct visits to field monitoring sites, to complete inspections, to install, maintain and check data logging equipment and collect ad hoc additional data, as needed on a prioritised basis.
* To oversee the management of equipment held in-house for conducting flow surveys, and to train and supervise others in the appropriate and safe use of the equipment.

**General**

* To act in accordance with the behaviours and values of the organisation
* To manage your own performance to be accountable for meeting individual, team and corporate objectives
* To act in accordance with the Scheme of Delegation and ensure propriety and regularity in the handling of public funds
* To actively demonstrate the Mining Remediation Authority’s customer service standards expected of your role
* To comply with and contribute to the improvement of operational and team processes and procedures
* To assist with the preparation and execution of the team’s objectives, budgets and financial records
* To identify opportunities and implement change leading to team development, system improvement and good value for money
* To maintain and develop positive stakeholder relationships in order to promote the Authority and assist it to meet its objectives
* To support research and development projects
* To ensure that the Mining Remediation Authority’s statutory responsibilities are effectively discharged
* To carry out any further reasonable requests from your line manager

**Competencies Level**

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| **Seeing the bigger picture** - has an in-depth understanding and knowledge of how the role fits with and supports the Mining Remediation Authority’s business priorities | **4** |
| **Changing and improving** - responsive, innovative and seek out opportunities for continuous improvement | **4** |
| **Making effective decisions** - objective; uses sound judgement, evidence and knowledge to provide accurate, expert and professional advice in a timely manner | **4** |
| **Leading and communicating** - leads from the front and communicates with clarity, conviction and enthusiasm | **4** |
| **Collaborating and partnering** - creates and maintains positive, professional and trusting working relationships with a wide range of people, within and outside the Mining Remediation Authority, to achieve results | **4** |
| **Building capability for all** - has a strong focus on continuous learning for self, others and the organisation | **4** |
| **Achieving commercial outcomes** - has a commercial, financial and sustainable mind-set to ensure all products and services deliver added value and stimulate growth | **4** |
| **Delivering good value for money** - achieves a good mix of quality and effectiveness for minimal cost and to improve return on investment | **4** |
| **Managing a quality service** - plans, organises and manages their time and activities to deliver a high-quality customer experience | **4** |
| **Delivering at pace** - delivers timely performance, with energy, and taking responsibility and accountability for high-quality outcomes | **4** |

**Person specification**

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| **Job Title:** Hydrologist **Department:** Technical Services |
|  | **Essential** | **Desirable** |
| **Qualifications and Training** | Degree in an Environmental based subject covering elements of hydrology | MSc Hydrology, or similar higher degree.Membership of an appropriate professional body (e.g. CIWEM)Chartered Status or working towards |
| **Experience and Knowledge** | Supervision and management of contractorsPractical experience of hydrology, or hydrometry; i.e. measuring flows, and installing structures. | Significant post-graduate experience in practical hydrology / hydrometrySource Apportionment Dispersion modelling Experience of GIS systems |
| **Skills and Abilities** | Ability to interpret flow monitoring dataUse of hydrological software packagesAbility to specify and install water monitoring instrumentation Ability to work under pressureExcellent communication and interpersonal skillsExcellent written communication and presentation skillsExcellent IT skillsReport writing skills | Flood Risk AssessmentWorked on constructed wetlands |
| **Other** | Frequent travel on business to attend meetings or visit monitoring sites, and occasional installation of data loggers. Approx. 7-10,000 miles per year.Occasional nights away from home, up to two times per monthPossible future overseas working required |  |

     