

# Role Description

## Data Analyst, Environmental Water Management



Planning,  
Industry &  
Environment

Cluster	Planning, Industry & Environment
Agency	Department of Planning, Industry & Environment
Division/Branch/Unit	Water/Policy, Planning & Sciences/Water Planning Implementation
Location	Negotiable
Classification/Grade/Band	DPO 2-3
Role Family	Standard/Science & Engineering/Support
ANZSCO Code	234999
PCAT Code	1119192
Date of Approval	September 2019 (updated April 2020)
Agency Website	<a href="http://www.dpie.nsw.gov.au">http://www.dpie.nsw.gov.au</a>

### Agency overview

The Planning, Industry and Environment Cluster was formed in 2019. The Cluster drives greater levels of integration and efficiency across key areas such as long-term planning, precincts, housing, property, infrastructure priorities, open space, the environment, our natural resources – land, water, mining – energy, and growing our industries. There is a strong emphasis on regional NSW.

### Primary purpose of the role

Plan and undertake hydrologic and hydraulic analysis and data analytics to support the development and implementation of improved environmental water management and inform water management policy and planning for NSW.

### Key accountabilities

- Undertake hydrology and hydraulics analysis of water movement, rainfall and water yield to inform the use and movement of environmental water.
- Undertake the analysis of water flow and rainfall data providing insight into predictive water planning, drought management, predicting potential water storage and allocation.
- Prepare reports that describe and evaluate environmental watering actions across the state.
- Evaluate the effectiveness of water management plan programs/initiatives and prepare reports and technical data to ensure plan requirements have been suitably implemented by stakeholders.
- Liaise and work with stakeholders to enhance knowledge and understanding of the application of developments in hydrology and hydraulics to contemporary water resource management issues.
- Research and review guidelines, manuals, courses and other support materials to contribute to technology transfer on hydrology technological development and contribute to the continual improvement of techniques.
- As a member of various sized single and multidisciplinary projects and teams, plan, undertake and deliver projects to which provide evidence for water management planning and policy.

## Key challenges

- Delivering fit for purpose hydrologic and hydraulic datasets within the timelines available given the high level of demand for services for a range of hydrologic investigations relating to environmental water resource management.
- Translating complex scientific and technical concepts into simplified language to enable clear and concise report development and implementation of analysis.
- Working in an area which is complex due to changing technical, policy and scientific developments to process, critically analyse, interpret and report results in a manner that will clearly inform stakeholders.

## Key relationships

Who	Why
<b>Internal</b>	
Manager, Environmental Water Management	<ul style="list-style-type: none"> <li>• Direct line manager responsible for setting the work program and priorities.</li> <li>• Receive guidance and direction from Project Managers responsible for supervising and reviewing work program.</li> <li>• Escalate issues as appropriate</li> </ul>
Team	<ul style="list-style-type: none"> <li>• Work collaboratively and share information</li> </ul>
<b>External</b>	
WaterNSW	<ul style="list-style-type: none"> <li>• Provide technical input to water management issues as the agency responsible for operating NSW storages.</li> <li>• Promote effective interagency liaison regarding water management issues.</li> </ul>
Environmental water managers and holders and other key stakeholders	<ul style="list-style-type: none"> <li>• Develop and maintain effective working relationships and open channels of communication to facilitate engagement, liaison, consultation and/or participation in the collation of relevant information to support the development and implementation of water management plans and other initiatives</li> <li>• Promote effective interagency liaison regarding water management issues</li> <li>• Manage effective customer relationships and ensure customers have a positive experience in relation to their needs.</li> </ul>
Murray Darling Basin Authority	<ul style="list-style-type: none"> <li>• Provide technical input to water management issues as the agency with interest in reviewing and implementation of NSW models.</li> <li>• Promote effective interagency liaison regarding water management issues.</li> </ul>

## Role dimensions

### Decision making

- Independently plans and sets priorities for work to be completed managing the day to day workload independently within agreed work and project plans.
- Recommends changes to work procedures and operating processes and systems.
- Manages the delivery of individual projects under the guidance of the manager.

- Drafts reports, briefs and other work for review by the manager; and decides the scope, content and format of information.
- May be required to guide and supervise staff assigned to assist with project activities.

### Reporting line

Reports to Manager, Environmental Water Management

### Direct reports

Nil

### Budget/Expenditure

Nil

### Key knowledge and experience

- Knowledge and experience in one or more of the following hydrologic disciplines: water resources management and water allocation, open channel hydraulics.
- Experience in assessing the suitability of hydrologic and hydraulic datasets, data analysis and outputs for natural resource management requirements.
- Knowledge and experience in undertaking planning, evaluation, and/or water resource management processes.

### Essential requirements

- Degree level qualifications in Engineering, Natural Resources, Environmental Science, or a related discipline.

### Capabilities for the role

The [NSW public sector capability framework](#) describes the capabilities (knowledge, skills and abilities) needed to perform a role. There are four main groups of capabilities: personal attributes, relationships, results and business enablers, with a fifth people management group of capabilities for roles with managerial responsibilities. These groups, combined with capabilities drawn from occupation-specific capability sets where relevant, work together to provide an understanding of the capabilities needed for the role.



The capabilities are separated into **focus capabilities** and **complementary capabilities**.

### Focus capabilities



*Focus capabilities* are the capabilities considered the most important for effective performance of the role. These capabilities will be assessed at recruitment.

The focus capabilities for this role are shown below with a brief explanation of what each capability covers and the indicators describing the types of behaviours expected at each level.

## FOCUS CAPABILITIES

Capability group/sets	Capability name	Behavioural indicators	Level
 <p>Personal Attributes</p>	<b>Act with Integrity</b> Be ethical and professional, and uphold and promote the public sector values	<ul style="list-style-type: none"> <li>• Represent the organisation in an honest, ethical and professional way</li> <li>• Support a culture of integrity and professionalism</li> <li>• Understand and help others to recognise their obligations to comply with legislation, policies, guidelines and codes of conduct</li> <li>• Recognise and report misconduct and illegal and inappropriate behaviour</li> <li>• Report and manage apparent conflicts of interest and encourage others to do so</li> </ul>	Intermediate
	<b>Manage Self</b> Show drive and motivation, an ability to self-reflect and a commitment to learning	<ul style="list-style-type: none"> <li>• Adapt existing skills to new situations</li> <li>• Show commitment to achieving work goals</li> <li>• Show awareness of own strengths and areas for growth, and develop and apply new skills</li> <li>• Seek feedback from colleagues and stakeholders</li> <li>• Stay motivated when tasks become difficult</li> </ul>	Intermediate
 <p>Relationships</p>	<b>Communicate Effectively</b> Communicate clearly, actively listen to others, and respond with understanding and respect	<ul style="list-style-type: none"> <li>• Focus on key points and speak in plain English</li> <li>• Clearly explain and present ideas and arguments</li> <li>• Listen to others to gain an understanding and ask appropriate, respectful questions</li> <li>• Promote the use of inclusive language and assist others to adjust where necessary</li> <li>• Monitor own and others' non-verbal cues and adapt where necessary</li> <li>• Write and prepare material that is well structured and easy to follow</li> <li>• Communicate routine technical information clearly</li> </ul>	Intermediate
	<b>Commit to Customer Service</b> Provide customer-focused services in line with public sector and organisational objectives	<ul style="list-style-type: none"> <li>• Recognise the importance of customer service and understanding customer needs</li> <li>• Help customers understand the services that are available</li> <li>• Take responsibility for delivering services that meet customer requirements</li> <li>• Keep customers informed of progress and seek feedback to ensure their needs are met</li> <li>• Show respect, courtesy and fairness when interacting with customers</li> <li>• Recognise that customer service involves both external and internal customers</li> </ul>	Foundational

## FOCUS CAPABILITIES





Capability group/sets	Capability name	Behavioural indicators	Level
 Results	<b>Think and Solve Problems</b> Think, analyse and consider the broader context to develop practical solutions	<ul style="list-style-type: none"> <li>Identify the facts and type of data needed to understand a problem or explore an opportunity</li> <li>Research and analyse information to make recommendations based on relevant evidence</li> <li>Identify issues that may hinder the completion of tasks and find appropriate solutions</li> <li>Be willing to seek input from others and share own ideas to achieve best outcomes</li> <li>Generate ideas and identify ways to improve systems and processes to meet user needs</li> </ul>	Intermediate
	<b>Demonstrate Accountability</b> Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines	<ul style="list-style-type: none"> <li>Take responsibility for own actions</li> <li>Be aware of delegations and act within authority levels</li> <li>Be aware of team goals and their impact on work tasks</li> <li>Follow safe work practices and take reasonable care of own and others' health and safety</li> <li>Escalate issues when these are identified</li> <li>Follow government and organisational record-keeping requirements</li> </ul>	Foundational
 Business Enablers	<b>Project Management</b> Understand and apply effective planning, coordination and control methods	<ul style="list-style-type: none"> <li>Understand all components of the project management process, including the need to consider change management to realise business benefits</li> <li>Prepare clear project proposals and accurate estimates of required costs and resources</li> <li>Establish performance outcomes and measures for key project goals, and define monitoring, reporting and communication requirements</li> <li>Identify and evaluate risks associated with the project and develop mitigation strategies</li> <li>Identify and consult stakeholders to inform the project strategy</li> <li>Communicate the project's objectives and its expected benefits</li> <li>Monitor the completion of project milestones against goals and take necessary action</li> <li>Evaluate progress and identify improvements to inform future projects</li> </ul>	Adept

### Complementary capabilities

*Complementary capabilities* are also identified from the Capability Framework and relevant occupation-specific capability sets. They are important to identifying performance required for the role and development opportunities.

Note: capabilities listed as 'not essential' for this role are not relevant for recruitment purposes however may be relevant for future career development.

## COMPLEMENTARY CAPABILITIES

Capability group/sets	Capability name	Description	Level
 Personal Attributes	Display Resilience and Courage	Be open and honest, prepared to express your views, and willing to accept and commit to change	Intermediate
	Value Diversity and Inclusion	Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives	Foundational
 Relationships	Work Collaboratively	Collaborate with others and value their contribution	Intermediate
	Influence and Negotiate	Gain consensus and commitment from others, and resolve issues and conflicts	Foundational
 Results	Deliver Results	Achieve results through the efficient use of resources and a commitment to quality outcomes	Intermediate
	Plan and Prioritise	Plan to achieve priority outcomes and respond flexibly to changing circumstances	Intermediate
 Business Enablers	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Foundational
	Technology	Understand and use available technologies to maximise efficiencies and effectiveness	Intermediate
	Procurement and Contract Management	Understand and apply procurement processes to ensure effective purchasing and contract performance	Foundational