Role Description

Senior Scientist (Hydraulic Modeller)

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| **Cluster** | Planning and Environment |
| **Agency** | Department of Planning and Environment |
| **Division/Branch/Unit** | Environment and Heritage / Biodiversity, Conservation and Science |
| **Location** | Queanbeyan or Albury |
| **Classification/Grade/Band** | Environment Officer Class 11 |
| **Role Number** | TBC |
| **ANZSCO Code** | 234999 |
| **PCAT Code** | 1119192 |
| **Date of Approval** | December 2022 |
| **Agency Website** | [www.dpie.nsw.gov.au](http://www.dpie.nsw.gov.au/) |

# Agency overview

Our vision is to create thriving environments, communities and economies for the people of New South Wales. We focus on some of the biggest issues facing our state. We deliver sustainable water resource and environment management, secure our energy supply, oversee our planning system, maximise community benefit from government land and property, and create the conditions for a prosperous state. We strive to be a high-performing, world-class public service organisation that celebrates and reflects the full diversity of the community we serve and seeks to embed Aboriginal cultural awareness and knowledge throughout the department.

The Environment and Heritage (E&H) Group within DPE brings together a range of functions including national park management, biodiversity and conservation, climate change, sustainability, resilience and adaptation, renewable energy and energy security, and circular economy policy. The work of the Group is supported by centres of excellence in policy; science; economics; data analytics and insights.

## Primary purpose of the role

As the considered expert, the Senior Scientist will lead engagement with water modelling development and refinement to inform contemporary environmental water management and decision making.

# Key accountabilities

* Lead Environment and Heritage (E&H) input into the development and implementation of modeling platforms to inform contemporary environmental water management and decision making to improve delivery of river and wetland health outcomes.
* Develop E&H water modelling and analytical capacity to inform policy and planning.
* Build organisational understanding and uptake of contemporary modelling platforms and scope requirements for additional E&H modelling capacity.
* Lead the implementation of modelling platforms to inform and support environmental water management.
* Develop and present scientific and technical information to explain complex processes clearly to a range of audiences.
* Manage scientific project implementation, including monitoring project plans, coordinating resources and managing budgets.

# Key challenges

* Develop rigorous and robust strategies to incorporate models and modelling outputs into plans and policies supporting the effective management of water for the environment.
* Exercising judgment, discretion, diplomacy and confidentiality when dealing with complex, difficult and contentious matters.
* Alignment and refinement of new tools and modelling platforms, being development by other state and Commonwealth agencies, to ensure project outcomes deliver upon E&H needs.

# Key relationships

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| **Who** | **Why** |
| **Internal** |  |
| Manager | * Receive guidance and exchange information
* Provide detailed and timely advice as the considered expert
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| Agency staff in E&H | * Build partnerships with EH environmental water managers and other Water for the Environmental programs to support the delivery of models and incorporation of modelling outputs into plans, and

program decision making |
| **External** |  |
| Stakeholders include DPI Water, CSIRO, MDBA, Commonwealth & state/Territory water agencies, universities, scientific organisations and other water related stakeholders. | * Manage relationships with state and federal agencies as well as the scientific organisations to promote E&H objectives
* Present complex modelling results and scenarios, including the public, to build understanding and support for environmental water management.
* Identify and implement opportunities for collaboration and data sharing to achieve program outcomes.
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**Role dimensions**

## Decision making

Is the considered expert in the field and as such is relied on to provide expert advice to Manager, team and Stakeholders, and is fully accountable for advice provided.

## Reporting line

Senior Team Leader – Environmental Water Planning.

## Direct reports

Project staff as required

## Budget/Expenditure

As per project/grant allocated.

## Key knowledge and experience

* Proven experience in the use and application of modelling platforms to inform and support water management policy and programs with specific relevance to river and wetland health outcomes.

## Essential requirements

* Relevant scientific qualification and experience related to water modelling.

## Capabilities for the role

The [NSW public sector capability framework](https://www.psc.nsw.gov.au/workforce-management/capability-framework/the-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

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| **Capability group/sets** | **Capability name** | **Behavioural indicators** | **Level** |
| personal-attributes | **Act with Integrity**Be ethical and professional, and uphold and promote the public sector values | * Represent the organisation in an honest, ethical and professional way and encourage others to do so
* Act professionally and support a culture of integrity
* Identify and explain ethical issues and set an example for others to follow
* Ensure that others are aware of and

understand the legislation and policy framework within which they operate* Act to prevent and report misconduct and

illegal and inappropriate behaviour | Adept |
| personal-attributes | **Manage Self**Show drive and motivation, an ability to self-reflect and a commitment to learning | * Keep up to date with relevant contemporary knowledge and practices
* Look for and take advantage of opportunities to learn new skills and develop strengths
* Show commitment to achieving challenging

goals* Examine and reflect on own performance
* Seek and respond positively to constructive feedback and guidance
* Demonstrate and maintain a high level of

 personal motivation  | Adept |

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| relationships | **Communicate Effectively** Communicate clearly, actively listen to others, and respond with understanding and respect | * Present with credibility, engage diverse audiences and test levels of understanding
* Translate technical and complex information clearly and concisely for diverse audiences
* Create opportunities for others to contribute to discussion and debate
* Contribute to and promote information sharing

across the organisation* Manage complex communications that involve understanding and responding to multiple and divergent viewpoints
* Explore creative ways to engage diverse audiences and communicate information
* Adjust style and approach to optimise outcomes
* Write fluently and persuasively in plain English

and in a range of styles and formats | Advanced |
| relationships | **Work Collaboratively** Collaborate with others and value their contribution | * Encourage a culture that recognises the value of collaboration
* Build cooperation and overcome barriers to information sharing and communication across teams and units
* Share lessons learned across teams and units
* Identify opportunities to leverage the strengths of others to solve issues and develop better processes and approaches to work
* Actively use collaboration tools, including

digital technologies, to engage diverseaudiences in solving problems and improving services | Adept |
| relationships | **Influence and Negotiate** Gain consensus and commitment from others, and resolve issues and conflicts | * Negotiate from an informed and credible position
* Lead and facilitate productive discussions with

staff and stakeholders* Encourage others to talk, share and debate ideas to achieve a consensus
* Recognise diverse perspectives and the need for compromise in negotiating mutually agreed outcomes
* Influence others with a fair and considered

approach and sound arguments* Show sensitivity and understanding in resolving conflicts and differences
* Manage challenging relationships with internal and external stakeholders
* Anticipate and minimise conflict
 | Adept |

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| results | **Think and Solve Problems** Think, analyse and consider the broader context to develop practical solutions | * Undertake objective, critical analysis to draw accurate conclusions that recognise and manage contextual issues
* Work through issues, weigh up alternatives

and identify the most effective solutions in collaboration with others* Take account of the wider business context

when considering options to resolve issues* Explore a range of possibilities and creative alternatives to contribute to system, process and business improvements
* Implement systems and processes that are underpinned by high-quality research and analysis
* Look for opportunities to design innovative solutions to meet user needs and service demands
* Evaluate the performance and effectiveness of services, policies and programs against clear

criteria | Advanced |
| business-enablers | **Project Management** Understand and apply effective planning, coordination and control methods | * Understand all components of the project management process, including the need to consider change management to realise business benefits
* Prepare clear project proposals and accurate

estimates of required costs and resources* Establish performance outcomes and measures for key project goals, and define monitoring, reporting and communication requirements
* Identify and evaluate risks associated with the

project and develop mitigation strategies* Identify and consult stakeholders to inform the project strategy
* Communicate the project’s objectives and its expected benefits
* Monitor the completion of project milestones against goals and take necessary action
* Evaluate progress and identify improvements

 to inform future projects  | Adept |

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| people-management | **Manage and Develop People**Engage and motivate staff, and develop capability and potential in others | * Collaborate to set clear performance standards and deadlines in line with established performance development frameworks
* Look for ways to develop team capability and

recognise and develop individual potential* Be constructive and build on strengths by giving timely and actionable feedback
* Identify and act on opportunities to provide coaching and mentoring
* Recognise performance issues that need to be addressed and work towards resolving issues
* Effectively support and manage team

members who are working flexibly and in various locations* Create a safe environment where team

members’ diverse backgrounds and cultures are considered and respected* Consider feedback on own management style

 and reflect on potential areas to improve  | Intermediate |

**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.

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| **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 | Adept |
| personal-attributes | Value Diversity and Inclusion | Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences andperspectives | Intermediate |
| relationships | Commit to Customer Service | Provide customer-focused services in line with public sector and organisational objectives | Intermediate |
| results | Deliver Results | Achieve results through the efficient use of resources and a commitment to quality outcomes | Adept |
| results | Plan and Prioritise | Plan to achieve priority outcomes and respond flexibly to changing circumstances | Adept |
| results | Demonstrate Accountability | Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines | Adept |
| business-enablers | Finance | Understand and apply financial processes to achieve value for money and minimise financial risk | Intermediate |

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| business-enablers | Technology | Understand and use available technologies to maximise efficiencies and effectiveness | Adept |
| business-enablers | Procurement and Contract Management | Understand and apply procurement processes to ensure effective purchasing and contractperformance | Intermediate |
| people-management | Inspire Direction and Purpose | Communicate goals, priorities and vision, and recognise achievements | Intermediate |
| people-management | Optimise Business Outcomes | Manage people and resources effectively to achieve public value | Intermediate |
| people-management | Manage Reform and Change | Support, promote and champion change, and assist others to engage with change | Intermediate |