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| **Cluster** | **Planning and Environment** |
| **Agency** | **Department of Planning and Environment** |
| **Division/Branch/Unit** | **Water / Water Knowledge / Water Analytics** |
| **Classification/Grade/Band** | **DPO 2/3** |
| **ANZSCO Code** | **234111** |
| **PCAT Code** | **1119192** |
| **Date of Approval** | **January 2023** |
| **Agency Website** | **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 Water Group leads the NSW Government in providing confidence to communities and stakeholders with the transparent stewardship of water resources, provision of services and reforms that support sustainable and healthy environments, economies and societies across NSW.

Primary purpose of the role

Provide remote sensing (RS) data products and services, developing and implementing high quality water information systems, based on and supported by remotely sensed imagery and data. Contribute to the development of customised optical and lidar remote sensing products for water analytics. The role also works with internal and external stakeholders to provide solutions utilizing remote sensing and spatial technologies.

# Key accountabilities

* Critically analyse, interpret, and communicate results from optical and lidar remote sensing analytics and/or other bathymetrical/hydrologic analysis techniques to provide reliable and accurate information on which policy can be developed.
* Contribute to the development and implementation of optical and lidar remote sensing information products and the continual improvement of techniques.
* Contribute to technology and knowledge transfer on remote sensing technological development by developing and reviewing review guidelines, manuals, courses and other support materials.
* Provide technical expertise in the area of remote sensing data acquisition, data management and analytics to support water resource management and compliance functions.
* Research, define, review and develop standards and best practice methodologies for remote sensing focused on farm scale measurement, impact assessment and identification of non-compliance.
* Maintain, update and audit remote sensing data archives and derivative products ensuring quality, currency and accuracy at all times, together with adherence to data and metadata standards.
* Provide a high level of customer support, assisting clients in accessing information and liaising with external organisations and stakeholders for the purpose of data acquisition and exchange.
* Demonstrate standards of professional behaviour and ethics that promote and maintain public confidence and trust in the work of the Department.

Key challenges

* Working in a dynamic environment which requires investigating and working with new leading-edge technologies to analyse and solve complex natural resource management issues.
* Working with a diverse range of internal staff and external jurisdictions in a collaborative manner to deliver fit for purpose results.
* Maintaining the integrity of outputs during high volume periods by balancing the delivery of day to day priorities with longer term project requirements.

Key relationships

| Who | Why |
| --- | --- |
| **Internal** |
| Manager | * Receive guidance and direction from manager responsible for supervising and reviewing work program
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| Senior Management team | * Contribute to the overall direction and strategy for the Geospatial Sciences unit
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| Project lead | * Collaborate and contribute to program by providing data and analysis from a range of sources to inform decision-making for natural resource management
* Receive guidance and direction from project lead responsible for supervising and reviewing work program.
* Advise on emerging and or contentious issues and, future strategy
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| **External** |
| Water NSW | * Promotes effective interagency liaison regarding water and data/technology management issues
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| State and federal government agencies, Authorities and inter-governmental entities | * Promotes effective relationships, strategic partnerships and networks with key government agencies
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| Industry stakeholders, community groups and other non-government stakeholders | * Provide effective customer relationships and ensures customers have a positive experience in relation to their needs
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Role dimensions

## Decision making

* Accountable for the delivery of work assignments and projects on time and to expectations in terms of quality, deliverables and outcomes.
* Undertakes work priorities allocated by the Manager (in consultation with Project Managers as appropriate)
* Recommends changes to information management practices or deployment of new technologies, with any change subject to approval by senior management.

## Reporting line

Lead Remote Sensing Analyst

## Direct reports

Nil

## Budget/Expenditure

Nil

# Key knowledge and experience

* Experience with digital image processing, remote sensing and weather data integration, ground truthing of active and passive remote sensing data.
* Experience in the automation of processes, through scripting or batch job creation as well as the acquisition, analysis and visualisation of imagery and spatial information.
* Experience in remote sensing, spatial analysis and modelling techniques, and spatial data management and technology including open source technologies.

# Essential requirements

* Tertiary qualifications in Remote Sensing and Geographic Information Systems or similar discipline and/or equivalent level of knowledge.

## 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

| **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 waySupport a culture of integrity and professionalismUnderstand and help others to recognise their obligations to comply with legislation, policies, guidelines and codes of conductRecognise and report misconduct and illegal and inappropriate behaviourReport and manage apparent conflicts of interest and encourage others to do so | Intermediate |
| 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 practicesLook for and take advantage of opportunities to learn new skills and develop strengthsShow commitment to achieving challenging goalsExamine and reflect on own performanceSeek and respond positively to constructive feedback and guidanceDemonstrate and maintain a high level of personal motivation | Adept |
| relationships | **Commit to Customer Service**Provide customer-focused services in line with public sector and organisational objectives | Focus on providing a positive customer experienceSupport a customer-focused culture in the organisationDemonstrate a thorough knowledge of the services provided and relay this knowledge to customersIdentify and respond quickly to customer needsConsider customer service requirements and develop solutions to meet needsResolve complex customer issues and needsCooperate across work areas to improve outcomes for customers | Intermediate |
| relationships | **Work Collaboratively**Collaborate with others and value their contribution | Encourage a culture that recognises the value of collaborationBuild cooperation and overcome barriers to information sharing and communication across teams and unitsShare lessons learned across teams and unitsIdentify opportunities to leverage the strengths of others to solve issues and develop better processes and approaches to workActively use collaboration tools, including digital technologies, to engage diverse audiences in solving problems and improving services | Adept |
| 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 issuesWork through issues, weigh up alternatives and identify the most effective solutions in collaboration with othersTake account of the wider business context when considering options to resolve issuesExplore a range of possibilities and creative alternatives to contribute to system, process and business improvementsImplement systems and processes that are underpinned by high-quality research and analysisLook for opportunities to design innovative solutions to meet user needs and service demandsEvaluate the performance and effectiveness of services, policies and programs against clear criteria | Advanced |
| results | **Demonstrate Accountability**Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines | Be proactive in taking responsibility and being accountable for own actionsUnderstand delegations and act within authority levelsIdentify and follow safe work practices, and be vigilant about own and others’ application of these practicesBe aware of risks and act on or escalate risks, as appropriateUse financial and other resources responsibly | Intermediate |
| business-enablers | **Project Management**Understand and apply effective planning, coordination and control methods | Perform basic research and analysis to inform and support the achievement of project deliverablesContribute to developing project documentation and resource estimatesContribute to reviews of progress, outcomes and future improvementsIdentify and escalate possible variances from project plans | 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.

| **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 |
| personal-attributes | Value Diversity and Inclusion | Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives | Intermediate |
| relationships | Communicate Effectively | Communicate clearly, actively listen to others, and respond with understanding and respect | Intermediate |
| relationships | Influence and Negotiate | Gain consensus and commitment from others, and resolve issues and conflicts | Intermediate |
| results | Deliver Results | Achieve results through the efficient use of resources and a commitment to quality outcomes | Intermediate |
| results | 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 |
| 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 contract performance | Foundational |