Role Description
Senior Data Engineer

Cluster	Planning & Environment
Agency	NSW Reconstruction Authority
Division/Branch/Unit	Finance, Funding & Operations	IT & Data	Data Engineering
Role number	50017081 / 50017153
Classification/Grade/Band	Clerk Grade 9/10
ANZSCO Code	224114
PCAT Code	1229192
Date of Approval	6 December 2023
Agency Website	www.dpie.nsw.gov.au/nsw-reconstruction-authority

Agency overview

The NSW Reconstruction Authority (the Authority) is a statutory corporation within Planning & Environment. The Authority will improve how NSW plans for disasters and help communities to recover from them faster.

To reduce the severity and impacts of disasters, the Authority will complete critical planning and preparation with communities, businesses, and government. When disaster does strike, we will get recovery started swiftly and coordinate reconstruction efforts across agencies, communities, and other stakeholders.

Primary purpose of the role

Provides complex qualitative and quantitative data analysis reporting to support the delivery of agency initiatives including sourcing and managing data, surfacing findings in visualization tools and developing data analytics strategies.

Key accountabilities

- Design and develop the ingestion and transformation of data from disparate sources to create a single source of truth for generating reports and insights, supported by good practice BI development processes to ensure data is clean, consistent and governed.
- Design and produce a suite of data sets, dashboards and reports that inform decision making that help shape agency priorities, strategies, and policy initiatives.
- Proactively engage with stakeholders in other Government Data and Analytics agencies, and internal staff to assist in developing sound data driven strategy, policy and program business cases.
- Analyse business system risk data to identify trends, system pain points and opportunities for business improvement.
- Collaborate with internal and external stakeholders to create a reporting framework that meets user and operational needs
- Support projects by undertaking analysis and impact assessments including testing, training and business transitions to propose options and solutions

- Establish and lead process improvement test cases, liaising with internal stakeholders and client business units, evaluating, and reporting on potential process improvement initiatives and instituting systems changes.
- Work with divisions to develop and maintain relevant performance metrics, measurements, methods, and targets, establishing and documenting processes that support continuous business improvement

Key challenges

- Automating the ingestion of disparate sources of information from various external sources to ensure effective analytics that provide timely reports and insights and maintain data integrity across data sets which are relied upon by multiple stakeholders.
- Effectively balance competing demands and work in fast paced and high-pressure environments while championing evidence-based and data driven decision making.
- Work collaboratively with internal and external stakeholders with often competing priorities to enlist commitment to specific strategies.

Key relationships

Who	Why
Internal	
Manager	• Escalate issues and receive instructions; receive and clarify guidance and instructions; report on progress against work plans
Work Team	• Share ideas and information and work collaboratively to enhance team outcomes
Divisional staff	• Facilitate the exchange of ideas and information to foster a culture of continuous improvement, achievement and resilience. • Influence outcomes through collaboration when there are conflicting interests and opinions.
External	
Government and public sector	• Ensure effective, collaborative relationships and partnerships with other stakeholders to facilitate the exchange of information and to maintain positive relationships. • Enable continuous improvement by sharing information and learnings
Local Governments and Joint Organisations	• Act as a point of contact for technical data modelling issues and queries • Work collaboratively and foster strong relationships to facilitate the exchange of information, achievement of joint priorities and promote ResNSW as an enabling agency.
Non-government, business and industry and community sectors	• Work collaboratively and foster strong relationships to facilitate the exchange of information, achievement of joint priorities and promote ResNSW as an enabling agency.
Vendors / Service Providers	• Act as a point of contact for technical issues and queries • Ensure that service providers are engaged in accordance with the relevant internal, legislative, and NSW Procurement principles and requirements

Who	Why
	• Ensure service delivery in accordance with the contractual arrangements. • Consult, give and obtain information, negotiate required outcomes and timeframes and develop and maintain ongoing working • relationships and networks

Role dimensions

Decision making

- Has a high level of autonomy and is accountable for the delivery of work assignments and projects on time, and to expectations in terms of quality, deliverables and outcomes.
- Acts independently to determine day-to-day priorities, negotiate matters related to area of responsibility and makes decisions in relation to the quality of work outcomes.
- Maintains a degree of independence to develop a suitable approach in managing the workload, as well as that of supervised staff, and provision of advice and recommendations as well as input to the development of relevant systems, frameworks, team planning and projects.
- Determines own actions undertaken, within government and legislative policies, and for ensuring quality control in the implementation of own, and any staff supervised, workload.

Reporting line

Manager Data Engineering

Direct reports

N/A

Budget/Expenditure

- Financial Delegation: As per agency financial delegations.
- Administrative Delegation: As per agency delegations' manual.

Knowledge and experience

- Experience in Data Warehouse design and development including pipelines, design of dashboards using visualisation tools such as Tableau, Power BI or Qlik Sense, within a cloud computing environment.

Essential requirements

- Tertiary qualifications in Computer Science, data analytics, or equivalent data analytics knowledge and experience.
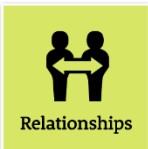
Capabilities for the role

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**
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**
Relationships	**Communicate Effectively** Communicate clearly, actively listen to others, and respond with understanding and respect	Tailor communication to diverse audiences Clearly explain complex concepts and arguments to individuals and groups Create opportunities for others to be heard, listen attentively, and encourage them to express their views Share information across teams and units to enable informed decision making Write fluently in plain English and in a range of styles and formats Use contemporary communication channels to share information, engage and interact with diverse audiences	**Adept**
	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 diverse audiences in solving problems and improving services	**Adept**
	Influence and Negotiate Gain consensus and commitment from others, and resolve issues and conflicts	Use facts, knowledge and experience to support recommendations Work towards positive and mutually satisfactory outcomes Identify and resolve issues in discussion with other staff and stakeholders Identify others' concerns and expectations Respond constructively to conflict and disagreements and be open to compromise Keep discussions focused on the key issues	**Intermediate**
Results	**Think and Solve Problems** Think, analyse and consider the broader context to develop practical solutions	Research and apply critical-thinking techniques in analysing information, identify interrelationships and make recommendations based on relevant evidence Anticipate, identify and address issues and potential problems that may have an impact on organisational objectives and the user experience	**Adept**

Capability group/sets	Capability Name	Description	Level
		Apply creative-thinking techniques to generate new ideas and options to address issues and improve the user experience	
		Seek contributions and ideas from people with diverse backgrounds and experience	
		Participate in and contribute to team or unit initiatives to resolve common issues or barriers to effectiveness	
		Identify and share business process improvements to enhance effectiveness	
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	**Adept**
		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	

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	**Adept**
	Manage Self	Show drive and motivation, an ability to self-reflect and a commitment to learning	**Adept**
	Value Diversity and Inclusion	Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives	**Intermediate**
Relationships	Commit to Customer Service	Provide customer-focused services in line with public sector and organisational objectives	**Adept**
	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	**Intermediate**
	Demonstrate Accountability	Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines	**Intermediate**
Business Enablers	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	**Intermediate**
	Technology	Understand and use available technologies to maximise efficiencies and effectiveness	**Adept**
	Procurement and Contract Management	Understand and apply procurement processes to ensure effective purchasing and contract performance	**Intermediate**