

Data Engineer

Purpose | Te arotahi mātua

The Data Engineer is responsible for working collaboratively and cohesively within the Data and GIS team, and the wider Digital Technology group, to ensure that Taranaki Regional Council's data platform is fit for purpose.

The role of the Data Engineer is to ensure the effective and efficient development and operation of the Council's data platform, and that this is in line with the Data Strategy, Digital Strategy and Roadmap. This includes updates, support, reporting, planning and being responsive when things don't go right. The overall goal is to ensure customers have the data they need, in the form they need it, in order to achieve great outcomes for Taranaki.

The Data Engineer will:

- Ensure our Taranaki Regional Council data platform is fit for purpose.
- Establish, maintain, and evolve orchestration methods that provide for integration and accessibility to data across our systems.
- Ensure our data platform is secure, privacy is protected, and customers have the right data and tools available for reporting.
- Document our data platform and build up our standard operating procedures.

Role dimensions | Te ahu mahi

Responsible to:	Data and GIS Lead
Responsible for:	Nil
Primary location:	Stratford although travel throughout the region maybe required as part your daily duties
Job context:	Permanent, Full-time
Position grade:	TBC
Position number:	TBC

Organisational context | Te horopaki whakahaere



Role specific areas of responsibility | Whakaritea ngā wāhanga kawenga

The key responsibility areas are provided as a guide only. Performance measures for this job will need further discussion between the job holder and People Leader / Manager as part of the performance development process.

- Fit for purpose data platform**
 - *Data Integration and Interoperability:*
 - Develop, construct, test, and maintain architectures for our data platform.
 - Integrate disparate data sources and systems to create a unified view of data across the organisation.
 - Ensure data interoperability and compatibility between different systems and platforms.
 - Design and implement data integration strategies to facilitate seamless data exchange and interoperability.
 - Data pipelines are built and optimised for data ingestion and delivery.
 - Data quality and integrity are checked, validated, and monitored.
 - Performance monitoring and tuning is undertaken.
 - Ensure data security and access controls are in place to safeguard sensitive data, compliance with relevant standards, regulations and legislation is met, and audits are undertaken and completed.
 - Work pro-actively and collaboratively with stakeholders to ensure business needs are being met.
 - *Data Analytics and Insights:*
 - Enable advanced analytics and data-driven decision-making by providing access to quality data and analytics tools.
 - Collaborate with data analysts and data scientists to design and implement data models, algorithms, and analytical solutions.
 - Support the development of data visualisation dashboards and reports to communicate insights to stakeholders.
 - *Training*
 - Our Taranaki Regional Council teams have the knowledge required to make best use of the data platform.
 - Accumulated data platform knowledge is shared amongst the DigiTech teams where appropriate.

- Documentation and SOPs**
 - Establish and maintain data platform architecture standards, best practices, and documentation.
 - We have appropriate standard operating procedures in place.
 - Change register is correctly used for all planned works.

- Safe and secure**
- Role model appropriate IT security behaviour.
 - Ensure data infrastructure security and access controls are developed maintained, and audited.
 - Ensure appropriate access controls are in place for the protection of sensitive data, noting the requirements of New Zealand legislation, and overseas standards such as GDPR.
 - Educate users around the basics of security and access
 - Respond when security is compromised or risks are identified.
- Projects**
- Participate in appropriate DigiTech projects especially when performing major data platform enhancements or upgrades.
 - For new data systems, ensure delivery is in accordance with our project management framework and on the DigiTech programme list.
- Skills and training**
- Maintain professional and technical knowledge personally through continued education, online/in-person training and attendance of educational workshops, reviewing professional publications, networking and participation in professional industry groups.



Organisational areas of responsibility | Ngā wāhanga whakahaere

- **Be a team player** – Contribute to the greater team and organisational goals by completing projects and tasks in an efficient and effective manner, including any additional activities as directed by your People Leader.
- **Be flexible and adaptable** – Flexible work arrangements meet the needs of our customers, the Council and the individual and may include the need to work outside normal office hours from time-to-time.
- **Look after yourself and others** – Work within the Council’s health and safety systems, policies and procedures at all times to limit risk and keep yourself and those around you safe.
- **Work with integrity** – Maintain high professional and ethical standards that align with relevant legislation, Council policies and our values.
- **Develop yourself and others** – Proactively seek out opportunities for your own professional development and work alongside others to develop them, including actively taking part in Our TRC.
- **Be culturally aware** – Show appreciation and understanding of Māori culture and values and put these into practice in your work.
- **Be an agent for change** – Always be on the lookout for ways to do things better, faster or smarter and be an active participant in the continuous improvement culture.
- **Be digitally savvy** – Understand and be competent in the use of digital technologies relevant to your role, including processing and storage of Council information in line with relevant policies.
- **Emergency planning and response** – Where required, participate in emergency management training exercises and support Council during an emergency management response, having due regard to the safety of your family.
- **Live our values** - Be aware of and demonstrate our values in ways that support inclusivity in every aspect of our work.

Delegations of authority | Te tuku mana

Delegations for all roles are set out in the **Taranaki Regional Council Delegations Manual** as appropriate.

Personal specifications | Ngā whakaritenga whaiaro

- Qualifications**
- A tertiary qualification in Computer Science, Engineering, Information Systems, or a field that is relevant to the specialisation of this role is required or study towards a qualification.
 - Relevant data platform certification(s).
- Experience**
- At least five years' demonstrated experience in data engineering, data architecture, or a related field
 - Experience working with large-scale data systems, databases, and distributed computing technologies
 - Proficiency in programming languages and data processing frameworks
 - Expertise in data modelling, ETL processes, and database technologies.
 - Have technical and practical proficiency and competency relevant to this role's specialisation
 - Experience with building and maintaining effective relationships and gaining the cooperation of a wide range of internal and external stakeholders
- Skills**
- TRC has a skills pathway framework enabling people to plan their development and grow their skills. The core skills required for this position are aligned with **He Pukenga Ara Skills Pathway**, and a summary table is included in Appendix 1.
 - Experience with relational database management systems (RDBMS) such as PostgreSQL, MySQL, Microsoft SQL Server (preferred), or Oracle Database.
 - Ability to write complex SQL queries for data analysis, reporting, and ETL (Extract, Transform, Load) processes.
 - Familiarity with cloud computing platforms such as Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform (GCP).
 - Experience with cloud-based data storage services such as Amazon S3, Azure Blob Storage, or Google Cloud Storage.
 - Proficiency in deploying and managing data workloads on cloud-based infrastructure
 - Programming languages, e.g. Python, .Net languages, HTML.
 - Mobile technologies across iOS and Android.
 - Effective communication skills.
 - Project management skills or experiences.
 - Sound analytical and problem solving skills.
 - Ability to relate to a diverse workforce.
 - Ability to fill and range of multiple roles within the team simultaneously.
 - Excellent interpersonal skills, including the ability to train others.
 - Ability to think laterally, multitask and self-manage.

Knowledge

- Knowledge of stored procedures, triggers, and functions for automating tasks and implementing business logic within the database.
- Knowledge of data warehouse security principles and best practices for securing sensitive data.
- Knowledge of cloud-based database services, including Amazon RDS, Azure SQL Database, or Google Cloud SQL.
- Knowledge of cloud monitoring and logging tools for tracking performance, availability, and security of cloud-based data platforms.

Personal attributes

- Self-motivated
- Adaptable
- Strong initiative
- A can-do attitude
- Self-awareness
- Strong commitment to quality assurance and control measures
- Innovative and self-motivated
- Willingness to adapt
- **Customer first mentality** – Drive to put the customer at the centre of everything they do
- **Growth mind-set** – Able to self-reflect, challenge the status quo and grow



Functional relationships | Te whanaungatanga mahi

Build, maintain and role model meaningful effective and sustainable relationships with;

Internal

- All Taranaki Regional Council Staff
- All Digital Technology team members.
- Data and Information Management Governance Group

External

- Other Regional/District Councils

Changes to job description | Ngā huringa ki ngā whakaahuatanga mahi

From time to time it may be necessary to consider changes in the job description in response to the changing nature of our work environment. Such changes, including technological requirements or statutory changes, may be initiated by the manager of this job with due consultation with the position holder. This job description should be reviewed as part of the preparation for performance planning for the annual performance cycle.



Our key messages | Ko ā mātou kōrero mātua

Taranaki Regional Council works with the Taranaki community:



Improving lifestyles
Supporting livelihoods
Taking Taranaki forward

Our mission | Tō tātou mihana

To work for a thriving and prosperous Taranaki by:

- Promoting the sustainable use, development and protections of our natural and physical resources.
- Safeguarding Taranaki's people and resources from natural and other hazards.
- Promoting and providing for significant services, amenities and infrastructure.
- Representing Taranaki's interests and contributions to the regional, national and international community.

We will do this by leading with responsibility, working cooperatively, encouraging community participation, and taking into account the Treaty of Waitangi.

Our values | Tō tātou whanonga pono

- **Integrity** | We do what it is right, rather than what is easy.
- **Teamwork** | We are one TRC team, working together with courage and purpose.
- **Care & Respect** | We demonstrate care and respect for ourselves and others; we treat everyone with dignity.
- **Agility** | We strive for excellence, embracing change as an opportunity for innovation.



Our health and safety | Tō tātou Hauora me te haumaru

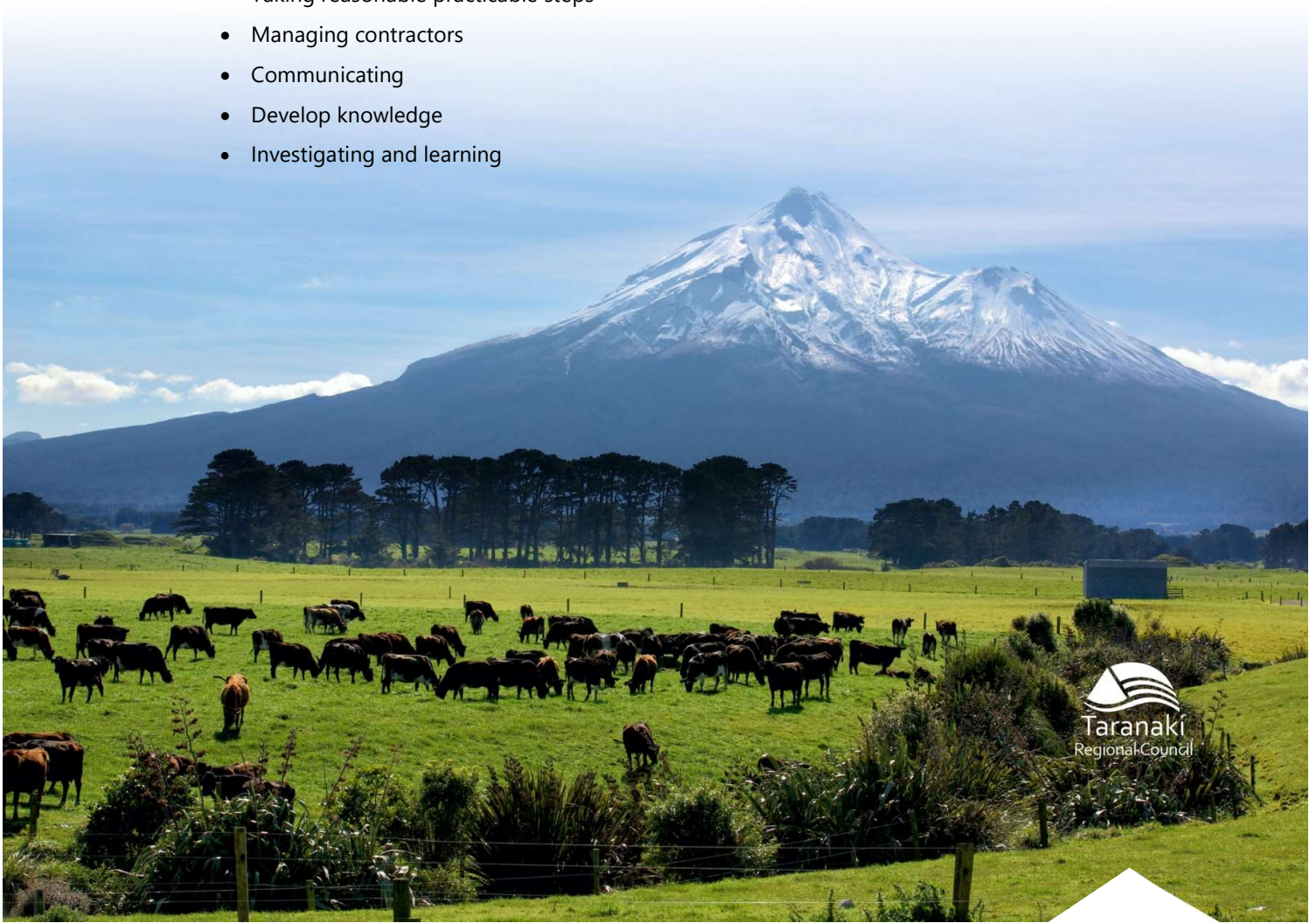
The Taranaki Regional Council is committed to a process of continuous improvement in order to achieve excellence in the management of health and safety at all of our workplaces. We recognise the positive impact that the values and benefits of enhanced health and safety bring to the organisation, our employees and our communities.

There are two key points to health and safety:

- 1 The safety of our people and the communities in which we operate always comes first.
- 2 We are all empowered and expected to challenge any unsafe situation at work.

We will achieve these by:

- Building a positive culture
- Aiming for zero harm
- Taking reasonable practicable steps
- Managing contractors
- Communicating
- Develop knowledge
- Investigating and learning



Appendix 1 | He Pūkenga Ara Skills Pathway – Required Skills Area Summary

Skill Area	Capabilities
Service Delivery	<ul style="list-style-type: none"> • Service Standards • Customer Service • Judgement and Decisions
Organisational Impact	<ul style="list-style-type: none"> • Aligns Work • Collaborates • Assesses Impact and Value • Promotes Change
Self-Awareness	<ul style="list-style-type: none"> • Knows Self • Develops Self and Others • Builds Trust
Communicates Effectively	<ul style="list-style-type: none"> • Clear Messages • Adapts Style • Tact and Diplomacy
Digital Technology	<ul style="list-style-type: none"> • Systems Knowledge • Works Efficiently • Data Management
Wellness and Risk	<ul style="list-style-type: none"> • Policies and Procedures • Manages Risks • Proactive Wellbeing • Site Safety
Cultural Awareness	<ul style="list-style-type: none"> • Reo • Tikanga • Whakawhanaungatanga • Local context • Mātauranga Māori • Regulatory Environment