

Job Description



My Position

Position:	Principal Hydrologist
Section:	Data & Monitoring
Group:	Environmental Services
Responsible to:	Environmental Manager – Data & Monitoring
Job Purpose:	<ul style="list-style-type: none">• To lead the provision of specialised technical hydrology expertise across the council group.• To contribute to the development of monitoring, research and investigation programmes that improves our understanding of the natural environment of Tasman.• To lead the provision of specialist hydrological advice and analyses to meet Council's needs for civil engineering, flood warning, water resources, policy development and compliance.• To lead Council's flood warning programme, including assessment of risk, computer modelling, data assimilation, and development of the flood warning procedures.• To assess flooding risk to people, property and Council assets, and convey information to CDEM, Hazard Engineers and Scientists.• To analyse hydrological statistics, including extreme weather events and climate change, and ensure these are up to date and available for use by Council and the public.• To be a trusted and influential subject matter expert for Science and Engineering Hydrology.• To work as rostered, providing expert knowledge to predict flood flows through computer modelling, and reporting to CDEM during civil emergencies.• To represent Council on any hydrological matters requiring national attention, including engineering design, data dissemination, flood warning and policy development.

Our Council

Our Vision:	Thriving resilient Tasman <i>Kia manawaroa te tai o Aorere</i>
Our Purpose:	Delivering Public Value <i>Kia whai hua mā te marea</i>

Our Values

We support our Vision and Purpose through living our values.

Auahatanga – Innovation. *I orea te tuatara, ka patu ki waho. A problem solved by continuing to find solutions.*

- We love ideas, big or small

Manaakitanga – Caring/ Sharing. *Te tohu o te rangatira, he manaaki. The sign of a leader is how they support, protect and respect others.*

- Helpfulness and respect guide us

- We delivery differently
- We learn and grow
- We give it a go
- We are brave and challenge the status quo

Kawenga – Responsibility. *Kia ū ki te pai. Stay resolute to that which is good.*

- We honour our commitments
- We act professionally with integrity
- We are honest and open
- We bring the right attitude to work
- Safety and wellbeing come first

- Our mana encourages and lifts others up
- Care and empathy are a priority
- We are always welcoming
- We freely share knowledge

Whanaungatanga – Relationships. *He aroha whakatō, he aroha puta mai. If kindness is given then kindness shall be received.*

- We connect, listen and involve
- We believe in collective success
- Our stories create shared meaning
- We embrace diversity
- We are kind and nurturing

My Group

Role of the Environmental Services Group

The Environmental Services Group are the Tasman region’s front-line providers of environmental information, science expertise, and natural infrastructure management. We provide respected specialist expertise across a range of land, water and ecological disciplines, and serve as the region’s natural hazards advisor during times of emergency. Our dedicated teams also carry out extensive environmental control and protection work across the region, including biosecurity, catchment enhancement, coastal erosion, and river management works.

The Group also looks after most of the Council’s regulatory functions which facilitate the development and use of land, water, and coastal resources, and which regulate activities in order to protect and improve public health and safety and the environment, and to minimise nuisance and harm to people and places. The functions undertaken include building control, resource consenting and compliance, environmental health (including food safety), alcohol licensing, animal control, parking control, biosecurity and maritime safety.

We achieve this by demonstrating the principles of Te Tiriti, investing wisely in business process improvement, data management, people, tools, and science, and by respecting, supporting and enabling those that rely on our work. Our information systems and specialist advice provide a wealth of environmental understanding, enabling our Council and communities to make empowered decisions.

My Key Result Areas

My Priorities	
What am I supposed to do?	How well am I supposed to do it?
<p>Environmental Monitoring Networks</p> <ul style="list-style-type: none"> • Provide input to ensure Council’s baseline environmental monitoring programme collects hydrological data in accordance with industry best practise to meet the strategic requirements of Council and the wider community. 	<p>Environmental Monitoring Networks</p> <ul style="list-style-type: none"> • Baseline monitoring programme targets hydrological information to meet the strategic needs of Council. This includes identifying the council’s current and future evidence and data needs and setting the strategic direction for council’s hydrology research and monitoring.
<p>Hydrological Information</p> <ul style="list-style-type: none"> • Independently research, develop and implement computer based research and dissemination tools for the analysis of Hydrological data. • Through promotion and education, ensure the wide use of hydrological information held by Council. 	<p>Hydrological Information</p> <ul style="list-style-type: none"> • Database systems holding accurate baseline hydrological data are available to all relevant users. • New systems or processes are promoted to improve efficient and easy access to information. • Best practice industry standards are maintained.
<p>Data Analysis and Reporting</p>	<p>Data Analysis and Reporting</p> <ul style="list-style-type: none"> • Widely regarded as Councils subject matter expert for hydrological analysis.

<ul style="list-style-type: none"> • Lead Council's analysis and interpretation of hydrological data, and train and mentor other staff in this role. • Use initiative and non-standard approaches as necessary to ensure Council retains its position as a national leader in the use and interpretation of Hydrological data. • Provide guidance and mentoring to derive stage-flow rating curves by complex hydraulic analysis or computer modelling. • Provide analyses for engineering design of bridges, dams and other structures, and review work carried out by external consultancies. • Provide advice for Council decisions relating to drought management, policy development, consent conditions, water allocation and hazard assessment. • Undertake hydrological modelling as required for flood warning, water allocation and water projects. 	<ul style="list-style-type: none"> • Council staff are provided with accurate and timely advice. • Council maintains its reputation as an acknowledged national leader in environmental and hydrological data management. • External agencies and individuals are provided with hydrological data, advice and information to assist with decision making.
<p>Flood Warning</p> <ul style="list-style-type: none"> • Lead the development of procedures, systems and analyses to ensure relevant and timely flood warnings are provided to CDEM, Council staff and the wider public. • Critically review the telemetered flood warning system regularly and ensure appropriate operation. • Work closely with the River Engineers and CDEM to integrate the flood warning procedures with response practices. • Develop and maintain computer flood models that are integrated with the telemetry system and MetService predictions. • Maintain a close working relationship with MetService, Civil Defence Emergency Management, and the Engineering team relating to flooding issues. • Ensure the flood response team are trained in flood prediction methods. • Represent Council for nationally co-ordinated flood warning predications and responses. • Develop procedures to provide a clear course of action when flooding occurs in various rivers, and document these within the flood manual in co-ordination with Council's Emergency Management Manual. 	<p>Flood Warning</p> <ul style="list-style-type: none"> • Recognised as the subject matter expert for flood prediction and warning in the Tasman Region. • The flood warning network is well constructed and maintained, ensuring reliable and relevant warnings are provided to the flood warning team. • CDEM and other stakeholders are provided with advice well in advance of flooding occurring, and clear and concise guidance is provided regularly during flooding events. • Computer flood models utilise all relevant information sources and latest technology • Flood response roster is operational and effective and a response is available 24/7 • The flood warning team works to the expectations of their role, including understanding the technical requirements, procedures, escalation levels and data dissemination obligations.
<p>Liaison</p> <ul style="list-style-type: none"> • Work co-operatively as a project team member, and with customers, councillors and other Council staff to achieve excellence in environmental management throughout Tasman District. • Through team work and work planning, meet targets for project work, consent and policy input, and service delivery. • In conjunction with relevant staff, use initiative to identify and act on opportunities to use and improve resource information, through involvement of TDC staff and the wider community. • Observe and report to relevant staff any matters requiring Council response, including regulatory compliance and policy input. 	<p>Liaison</p> <ul style="list-style-type: none"> • Open and effective communication is maintained with all Council staff and stakeholders at all times. • Requests for information and help from internal and external customers are responded to promptly, professionally and in a helpful manner. • Is respected as adding expertise, and contributing to achieving excellence in environmental management. • Is responsive to internal customer needs.

My Contribution

Accountability

- I take responsibility for my performance, decisions and actions and how these impact on others.
- I take ownership of my wellbeing and health and safety responsibilities and seek support if I need it.
- I take responsibility for ensuring the digital information, data and records created from carrying out my role are properly stored, maintained and retrievable.
- I fulfil other assigned responsibilities, tasks and project work in a professional and timely manner.

Customer Focus

- I focus on the needs of our customers and provide all of them with outstanding service.
- I treat all people with respect, and I deliver on the commitments I make.
- My actions are fair and build trust with my colleagues, customers and our community.

Relationship Building

- I build and maintain genuine relationships with my colleagues, customers and our community.
- I actively listen to others and am supportive, friendly and helpful.
- I respect all cultures and act in ways that make others feel included and valued.

Resilience & Adaptability

- I support new ways of working and am able to be flexible and calm when facing change or difficult situations.
- I am digitally confident and participate in opportunities to learn how to apply digital business technology and tools to my work.
- I am a willing contributor and participant in business process improvement solutions and other initiatives that enhance our service delivery.

Motivation & Drive

- I take responsibility for my own learning and development and welcome feedback to improve my performance.
- I effectively plan, manage and prioritise my work and deliver it on time.
- I choose to bring the right attitude to work and I role model behaviours and attitudes that align with the Council's Values.

Collaboration & Inclusion

- I actively contribute to the achievement of team goals and objectives.
- I collaborate effectively with others and support my colleagues to achieve the Council's strategic goals and objectives.

Civil Defence Emergency Management

- I provide assistance and support during civil defence / emergency management activities.
- I participate in civil defence and emergency management training.

Working within te ao Māori

- I have the appropriate level of knowledge and understanding of the principles and application of Te Tiriti o Waitangi for my role.
- I have the appropriate level of knowledge of Tikanga Māori (customs and practices) and Te Reo Māori (Māori language) for my role.
- I have the appropriate level of knowledge of Council's engagement protocols with the whānau, hapū and iwi of te Taihū for my role.
- I foster a culturally inclusive environment by actively engaging with and respecting Māori perspectives and practices in my work.

My Delegations

I have delegated decision-making authorities and financial responsibilities for expenditure as listed in Council's Delegations Register. I do not have staff responsibilities.

The Council may from time to time delegate to me other specified powers and duties, all of which I must exercise with due care and diligence.

My Competencies

My Qualifications and Experience:

- A degree in natural or physical sciences, data science or engineering hydrology, preferably at post graduate level.

- A minimum of 5 years senior experience collecting, analysing and reporting hydrological data, preferably within central or local government.
- Expert knowledge in hydrological data analysis, reporting and dissemination.
- The ability to make and confidently communicate science and engineering recommendations.
- Experience coaching and mentoring others.
- Expert knowledge of flood prediction and warning processes.
- Experience in contract management.
- A good general knowledge of Resource Management Act requirements.
- CDEM training and experience, preferably in flood warning and a proven ability to present clear and concise warning information.
- Must hold a current drivers licence.
- Well-developed connections across national hydrological and flood warning networks.
- Strong analytical, written and oral communication skills, in particular an ability to present and interpret large amounts of data in a simple yet accurate manner.
- Initiative, good judgement skills and a disposition to solving problems.
- Good organisational skills and an ability to work under tight time constraints.
- An ability to relate to a wide range of people and a proven commitment to quality customer service and teamwork.
- This position requires the incumbent to work with minimum supervision and will involve work outside of normal working hours, including being responsible for flood response.
- Ability to develop and maintain relationships across national agencies.

My Personal Attributes:

My Agreement

My Name:

My Signature:

Date: