



Dam Safety Engineer / Analyst

Reporting to:

July 2024

Team Leader, Dam Safety Intelligence

The Role:

The role of the Dam Safety Engineer / Analyst is to provide dam monitoring data management, site inspections, technical reporting, technical review, client management and other dam safety services. The Dam Safety Engineer / Analyst reports to a DSI Team Leader, and together with the team provides professional and technical expertise within DSI and to DSI's clients.

The Dam Safety Engineer / Analyst has no direct reports.

While working explicitly to provide Dam Safety Intelligence clients with services, your employment relationship is with Meridian Energy Limited, and we are guided by their Terms of Employment and competencies.

Role Accountabilities

Dam Monitoring Data Management

The Dam Safety Engineer / Analyst role is responsible for ensuring the Dam Monitoring System (DMS) data is complete, robust and of high quality. This may entail working with Catalyst IT, Meridian ICT team and clients' teams to ensure effective data management.

Key Tasks

- Receive and process dam monitoring data from clients' dam inspectors and instrumentation
- Manage data alerts and quality assurance processes
- Undertake dam performance evaluation
- Follow up dam monitoring issues and escalate to client as needed
- Ensure data privacy compliance and manage risk exposure
- Ensure conformance with DSI policies, plans, procedures, and applicable dam safety guidelines, standards, regulations and industry practice.

Site Inspections

The Dam Safety Engineer / Analyst is responsible for undertaking site inspections and preparing high quality dam inspection reports.

Key Tasks

- Prepare for site inspection by studying relevant design, construction, operational and dam safety reports
- Undertake dam performance evaluation to focus site inspection
- Prepare site inspection report
- Undertake dam inspection conforming with DSI's policies, plans, procedures, and applicable dam safety guidelines, standards, regulations and industry practice.

Technical Reporting

The Dam Safety Engineer / Analyst is responsible for preparing high quality client reports.

Key Tasks

- Prepare reports against contract scope and quality to ensure delivery of agreed performance delivery targets
- Ensure written reports meet DSI templates and are consistently structured
- Ensure conformance with DSI policies, plans, procedures, and applicable dam safety guidelines, standards, regulations and industry practice

DSI Proposition and Hallmarks

DSI Proposition:

Delivering independent dam management expertise to dam owners in NZ and internationally, we help our clients manage risk and provide assurance of asset safety and longevity. Our support and specialist services are appropriate to each owner's situation and needs, and we partner with our clients to operate as an extension of their teams.

Hallmarks:

- **Doing business is easy** our clients enjoy working with us, nothing is too hard, never a bad time, no issue too small
- **Collaborate** listening to clients (and each other) and inviting their input, utilise the full team's experience and knowledge
- **Create and innovate** don't assume the default (the way it's always been done) is the best, continuous improvement approach (open to feedback and doing things better)
- **Take ownership** treat clients' assets and problems like they are our own, take initiative and stand behind our work
- **Leaders in what we do** we have the greatest collective dam safety expertise in our NZ market, we strive to continuously develop our expertise and service offering for our owner and clients' benefit

Technical Review

The Dam Safety Engineer / Analyst is responsible for the technical review of DSI dam safety advice and reports and recommending approval to the Principal or Technical Director.

Key Tasks

- Review against contract scope and quality to ensure delivery of agreed performance delivery targets
- Review against DSI policies, plans, procedures, and applicable dam safety guidelines, standards, regulations and industry practice
- Provide sound and constructive feedback
- Where required, provide course correction in a prompt manner.
- Approve dam safety advice and reports as per DSI Delegations and Approvals Policy.

Client Management

Working closely with the Delivery Manager and assigned Principal, the Dam Safety Engineer / Analyst is responsible for managing all allocated client's projects and work streams.

Key Tasks

- Maintain close contact with the allocated client in order to coordinate work, deliverables and invoicing
- Maintain day to day oversight of contractual requirements and ensure DSI is compliant
- Contribute to the development of DSI Proposals for allocated clients
- Develop project plans including key milestones, timelines, budgets and resourcing requirements
- Coordinate project teams to ensure project plans are delivered
- Provide timely and accurate project status and invoicing information internally and to the client
- Undertake project close out
- Identify opportunities to grow client revenue.

Other Dam Safety Services

The Dam Safety Engineer / Analyst is responsible for completing high quality dam safety engineering, management and programme products and services..

Key Tasks

- Prepare dam safety engineering, management and programme products and services against contract scope and quality to ensure delivery of agreed performance delivery targets
- Ensure written, verbal and digital product and service deliverables meet DSI templates, client templates (as appropriate), and are consistently structured
- Identify and contribute to the development of dam safety products and services
- Ensure conformance with DSI policies, plans, procedures, and applicable dam safety guidelines, standards, regulations and industry practice



Wellington, Auckland,
Christchurch, Twizel
or other flexible
location

Position competencies (skills and knowledge)

Professional/Technical Skills and Knowledge

Applies the breadth of knowledge and understanding in position-related area achieved through study and/or experience.

- Keeps abreast of trends and issues across the water and infrastructure sector and related areas (both in New Zealand and overseas), knows when and where to go and get knowledge and expertise
- Understands and can apply relevant legislation, guidelines and standards in decision-making
- Engineering, science or similar technical qualification
- Expertise and experience in dam safety management and dam surveillance
- High level of computer and technology skills

Desirable

- An understanding of dam consequence assessment, dam design and construction would be of value
- An understanding of the principles of project management would be of value
- Chartered Professional Engineer (or similar) would be of value but is not essential

Execution

Analysis and Decision Making

Undertakes thorough analysis through accurately defining problem or identifying outcome; sees the 'whole' and the complexity of connections; gathers all relevant information and applies sound, analytical techniques; develops a course of action taking into account factual information and/or logical assumptions, resources, potential risks and opportunities; makes timely, sound decisions.

- Identifies situation and information required
- Applies sound analytical frameworks to decision-making
- Applies sound judgement

Relationships

Building Relationships

Builds, maintains and uses effective working relationships, internal and external to the organisation, to facilitate the successful achievement of projects, assignments and objectives.

- Actively engages with others to achieve goals
- Defines and agrees benefits of partnership
- Adapts personal style to meet the needs of the others
- Contributes to an environment where positive relationships are easily built and sustained
- Works collaboratively to accomplish shared goals

Personal Qualities

Adaptability/Personal Effectiveness

Displays energy, optimism and resilience; ensures effective performance when faced with ambiguity, changing environments and demands.

- Displays energy, optimism and resilience
- Manages own health and well-being
- Demonstrates flexibility and adaptability
- Maintains effective performance

Client Focus

Focuses attention on understanding and meeting the needs of clients; makes every effort to ensure that clients are listened to by self and others; ensures clients understand the rationale for solutions proposed.

- Seeks to understand the clients' needs
- Takes ownership of and attempts to exceed client expectations
- Adapts personal style to the situation

Communication

Expresses and conveys information effectively to other people. This includes speaking, writing and listening. This covers formal and informal situations.

- Listens and checks for understanding
- Understands and meets the needs of the audience
- Information delivery is well organised and presented

Health and Safety Awareness

Promotes a culture where health and safety are seen as integral to success. Is aware of and takes into account conditions that affect own and others' health and safety.

- Promotes a culture of a safe and healthy work environment
- Takes all practical steps to mitigate risks
- Recommends improvements



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Position competencies (skills and knowledge)

| Execution | Relationships | Personal Qualities |
|--|---|--|
| <p>Information Management</p> <p>Stores and manages information systems to enable the efficient and effective use of information and data.</p> <ul style="list-style-type: none"> • Understands the requirements for information management • Stores information in a manner that enables and promotes appropriate access and use by others • Ensures processes are identified and implemented for the protection of information | <p>Knowledge Transfer</p> <p>Facilitates the improved performance of others by giving advice and guidance.</p> <ul style="list-style-type: none"> • Participates in peer to peer learning • Undertakes regular coaching sessions • Contributes to an environment conducive to learning and growth • Uses organisational systems to support learning and growth | <p>Innovation and Creativity</p> <p>Looks for opportunities to improve personal and DSI's performance, rethinking how to approach work. Develops and actively encourages other to develop creative and practical ideas. Contributes to an environment where creativity and innovation can flourish.</p> <ul style="list-style-type: none"> • Proactively seeks improvement through innovation and fostering creativity • Encourages others to generate creative and practical ideas • Contributes to an environment where creativity and innovation can flourish |
| <p>Planning and Organising</p> <p>Plans and manages activities and projects for self and others; organises tasks to make best use of time and resources, and focuses attention on key objectives</p> <ul style="list-style-type: none"> • Manages time effectively • Develops Work Programmes and Project Plans • Tracks achievement of key objectives | <p>Personal Leadership</p> <p>Builds trust with others; models behaviour consistent with DSI's values and future; inspires and motivates others.</p> <ul style="list-style-type: none"> • Generates trust in others • Demonstrates respect and treats others with fairness • Facilitates the improved performance of others by giving advice and guidance • Promotes DSI's goals • Adapts personal approach to meet the needs of others | <p>Integrity</p> <p>Acts in a manner that conveys the principles important to DSI, including impartiality, fairness, honesty, openness, sound business ethics and respect for others; demonstrates high standards of ethical behaviour.</p> <ul style="list-style-type: none"> • Demonstrates high standards of ethical behaviour • Meets personal commitments • Maintains organisational standards |
| | | <p>Learning</p> <p>Acquires, understands and applies new job-related information knowledge and skills in a timely manner. Able to learn from experiences and other people and apply in practice.</p> <ul style="list-style-type: none"> • Continually updates, challenges and refines knowledge and skills required to be successful in their role • Views learning in the widest possible context • Knows self well and the impact this has on learning |



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Position competencies (skills and knowledge)

| Execution | Relationships | Personal Qualities |
|-----------|---------------|--|
| | | <p>Self Awareness</p> <p>Recognises one's emotions and feelings and their effects; recognises the impact of own behaviour on others; acts professionally at all times.</p> <ul style="list-style-type: none"> • Demonstrates self-awareness • Recognises impact on others • Demonstrates self-control and acts professionally at all times |
| | | <p>Work Standards</p> <p>Sets high personal and professional standards; assumes responsibility and accountability for the successful completion of projects, assignments or tasks. Consistently gives careful attention to all the detailed aspects of a role, shows a high concern for accuracy. Fosters an environment of excellence in the organisation.</p> <ul style="list-style-type: none"> • Balances quality, cost, timeliness and agreed expectations • Achieves high quality results • Facilitates an environment of excellence |



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