



## Senior Water Engineer

### Position Description – Engineering & Asset Management

<b>Team:</b>	Engineering Civil	<b>Location:</b>	Auckland/ Wellington/ Christchurch
<b>Reports to:</b>	Team Lead – Civil		
<b>Role Type:</b>	Permanent		

### About Us

#### KiwiRail's Role in Aotearoa, New Zealand

KiwiRail, a proud State-Owned Enterprise, delivers sustainable and inclusive growth for our customers, communities, and people.

For more than 150 years, rail in New Zealand has connected communities, delivered freight and passengers around the country, and showcased our spectacular scenery to the world. Our purpose—Hononga Whaikaha, Oranga mo Aotearoa (Stronger Connections, Better New Zealand)—speaks to connection with our customers and the future needs of their businesses, connection with the communities we serve and operate in, and connection with each other. KiwiRail is carrying this legacy into the future, delivering connected rail and shipping transport services that create economic, social, and environmental value for New Zealand and New Zealanders.

#### Our Workplace

At KiwiRail, our values define the behaviour we expect from everyone. We have a team of over 4500 people, and every connection we make with each other, our union partners, our customers and all our stakeholders must be of the highest standard.



Safety, health, and well-being are our number one priority, ensuring our people return home safe and healthy every day.

## About the Role

### Purpose of the role

We are looking for a Senior Water Engineer to lead as well as provide technical leadership in design, management, maintenance, and assurance of civil infrastructure assets across our network in particular water and drainage-related assets. This role plays a key part in delivering technical excellence and supporting long-term asset performance across the rail network while also supporting the safe and reliable operation of rail assets. This includes ensuring effective management of stormwater, culverts, formation drainage, river and coastal protection and flood risks within the rail corridor.

You will act as a technical subject matter expert for water engineering, supporting asset strategy, engineering design, and operational resilience. The role works closely with internal teams, consultants, contractors, and external stakeholders to deliver robust, sustainable, and cost-effective engineering solutions.

This role provides the opportunity to contribute to the resilience and long-term performance of New Zealand's national rail network.

This role can be based in Auckland, Wellington, or Christchurch, with Christchurch as the preferred location due to current workload and regional priorities.

### Key Responsibilities

Within the area of responsibility, this role is required to:

- Lead and manage water infrastructure projects using internal and external resources, providing technical oversight and ensuring quality through technical reviews of engineering deliverables.
- Lead investigations, scoping, design development, commissioning and handover approvals of new works, upgrades, and maintenance activities including:
  - **Water Assets:** stormwater associated infrastructure including subgrade treatment, culverts and cross-drainage structures, stormwater conveyance and discharge systems, flood resilience and water management within the rail corridor; and
  - **Interface Assets:** water-related infrastructure at road-rail crossings and pedestrian corridors including underground services within the rail corridor.
- Provide technical oversight and reviews on compliance reporting of culvert and drainage inspections, including recommendations on repairs to drainage assets.
- Provide expert technical advice on Kiwirail and third-party water-related design, maintenance, and upgrades within the rail corridor.
- Support the business in identifying, assessing, and managing risks associated with water infrastructure assets.
- Contribute to the continuous improvement of water engineering standards, technical practices, asset management processes and risk management frameworks.

### Key challenges

- Balancing technical excellence with cost-effective solutions in a complex rail environment.
- Managing stakeholder expectations across diverse internal and external parties.
- Navigating regulatory requirements and environmental constraints in water infrastructure projects.

<b>Key Relationships</b> Here are the key relationships relevant to this role		Manage /Lead	Deliver to	Collaborate with	Advise or inform
Internal	Engineering and Asset Management staff	✓	✓	✓	✓
	Asset Engineers	✓	✓	✓	✓
	Field & Technical Engineers	✓	✓	✓	✓
	Rail Operations staff			✓	✓
External	Consultants	✓	✓	✓	✓
	Contractors	✓		✓	✓
	Suppliers	✓	✓	✓	✓
	Relevant Authorities			✓	✓

## What you will do to contribute

<b>Health Safety and Wellbeing</b>	<ul style="list-style-type: none"> <li>• Prioritise safety in all engineering activities, identifying and mitigating hazards.</li> <li>• Ensure compliance with rail safety standards and statutory requirements.</li> <li>• Promote a culture of Zero Harm across all projects and teams.</li> <li>• Lead by example in safety behaviours and reporting of incidents or risks.</li> <li>• Support the development of safe design practices and engineering controls.</li> </ul>
<b>Customer Focus</b>	<ul style="list-style-type: none"> <li>• Build strong relationships with internal and external customers to understand their needs.</li> <li>• Deliver engineering solutions that enhance customer satisfaction and service delivery.</li> <li>• Provide timely and professional advice to stakeholders.</li> <li>• Actively seek feedback to improve engineering outcomes.</li> </ul>
<b>High Performing Teams Skills</b>	<ul style="list-style-type: none"> <li>• Collaborate effectively with multidisciplinary teams and external partners.</li> <li>• Share technical knowledge and mentor junior engineers.</li> <li>• Contribute to a positive team culture that values respect, inclusion, and continuous improvement.</li> <li>• Support team goals and adapt to changing priorities.</li> </ul>
<b>Commercial Acumen</b>	<ul style="list-style-type: none"> <li>• Apply sound judgement in balancing cost, risk, asset performance, and service levels in asset decisions.</li> <li>• Support the development of business cases and project scoping.</li> <li>• Ensure engineering solutions align with KiwiRail's financial and operational objectives.</li> <li>• Monitor project budgets and contribute to cost-effective delivery.</li> </ul>
<b>Technical Excellence</b>	<ul style="list-style-type: none"> <li>• Maintain up-to-date knowledge of civil and water engineering practices.</li> <li>• Lead technical reviews and ensure quality assurance across design outputs.</li> <li>• Contribute to the development and review of KiwiRail technical standards.</li> <li>• Support the application of engineering expertise to improve asset performance, resilience, and risk management across the rail network.</li> </ul>

## Key Accountabilities

The Senior Water Engineer is responsible for day-to-day technical and operational decisions related to water and drainage engineering design, maintenance, and assurance.

Key accountability requirements of the position include but not limited to:

- Accountable for the quality, safety, and compliance of water and drainage-related engineering designs and solutions, ensuring alignment with KiwiRail standards and statutory requirements.
- Support the development and implementation of effective asset management strategies for water and drainage-related infrastructure.
- Ensure risks related to water--related assets are identified, communicated, and appropriately mitigated.
- Maintain oversight of relevant technical standards and contribute to their continuous improvement.
- Lead technical decision-making and engineering assurance across design, maintenance, and renewal activities.
- Ensure rail corridor drainage systems are resilient to flooding and extreme weather events through appropriate hydrological assessment, design, and asset management practices.

<b>Human Resources Delegations</b>	Nil
<b>Direct reports</b>	Nil
<b>Finance Delegations</b>	Nil
<b>Budget (operating and capital)</b>	Nil
<b>Travel Delegations</b>	Nil
<b>Statutory powers</b>	Nil

## Physical demands and the nature of work

This role is predominately design focus but may require occasional manual tasks during site investigations or site visits:

- Extended periods of standing and walking while performing manual tasks
- May require lifting and carrying of items weighing up to 20 kg independently
- Occasional lifting of items up to 45 kg with assistance or equipment
- Working in various weather conditions and environments
- Exposure to mechanical equipment, electrical systems, vibration and noise
- Ability to work in confined spaces and at heights using ladders/lifts
- Capability to respond to emergency callouts and work extended shifts
- Manual dexterity and hand-eye coordination for operating tools/equipment
- Protective equipment usage including safety boots, hard hats, eye/ear protection

*Your role may include other tasks suited to your level, as your manager directs. This job description shows your current duties. We'll review and update it with you if your responsibilities change.*

## About you

### Knowledge and experience

- 8+ years of professional experience in water and drainage engineering, ideally within infrastructure, transport, or asset management environments.
- Strong skills in stormwater and drainage design, hydrology, and flood modelling.
- Experience in the planning, design, or management of drainage infrastructure (such as culverts, channels, and stormwater systems).
- Experience in flood management, coastal and river protection projects (desirable).
- Good understanding of asset management principles and engineering assurance processes.
- Experience with regulatory approvals and council consenting, and the use of engineering analysis tools and asset databases.
- Experience in working in operational infrastructure environments (e.g. rail, highways, utilities, or public infrastructure).

### Ways of working / Work-related qualities

- You prioritise safety and act with integrity.
- You communicate clearly and tailor your message to different audiences.
- You stay calm and adaptable in changing environments.
- You collaborate effectively and support team success.
- You seek out learning opportunities and apply feedback to improve.

### Other Requirements

- You must be able to pass pre-employment and ongoing drug and alcohol screening as required by KiwiRail.
- You hold a current and valid NZ driver's licence.

### Qualifications

- You have a relevant tertiary qualification in Civil Engineering that will satisfy Engineering New Zealand accreditation.
- You are a Chartered Professional Engineer (desirable) or working towards chartership.
- A postgraduate qualification in Water Engineering (desirable).