



Geospatial Analyst

Digital Infrastructure

Team:	Digital Infrastructure	Location:	Wellington
Reports to:	Geospatial Lead		
Role Type:	Fixed Term until 30 June 2027		

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

The government has and continues to invest billions of dollars in renewing and upgrading end-of-life rail network assets to improve service reliability, resilience and support growth in the NZ economy.

The KiwiRail infrastructure team maintain the rail network. Carrying out day to day activities across the country to keep our network smoothly running for freight customers and rail passengers.

This role is part of KiwiRail's Digital Infrastructure team, which focuses on enabling increases in productivity, improvements in safety, value for money spending and new ways of working by leveraging innovative technology.

KiwiRail is investing in re-building legacy geospatial tools to support modern ways of working including smart devices, using the latest esri ArcGIS Enterprise technology.

The Geospatial Analyst supports KiwiRail's Digital Infrastructure team in building high-quality geospatial apps for Auckland and Wellington metro networks, Infrastructure, and wider KiwiRail. This role is pivotal to achieving KiwiRail's strategic focus on digital connectivity and innovation by providing technical geospatial expertise, developing interactive visualisations – both 2D and 3D, and driving efficiency in project delivery and business operations.

As part of the Digital Infrastructure team, the Geospatial Analyst will build and deliver new geospatial products to the business which includes preparing data, configuring web-maps, applications and assisting with data update automation.

Key Accountabilities

Geospatial / Digital Infrastructure

- Collate, process, and load geospatial data into interactive 3D visualisations for prototyping.
- Build modern, fit for purpose geospatial applications & improve as necessary to meet user requirements.
- Address user requirements by developing tailored geospatial solutions using esri software, including mobile app implementation.
- Using ArcGIS Enterprise and FME, author geospatial data update processes - utilising editable applications and integrations with other KiwiRail systems.
- Support KiwiRail IT with release of apps in production environments, transition to BAU and documentation of solutions, including alignment and improvement of solutions to meet quality standards.
- Deliver geospatial expertise, training, and support to users across a wide range of disciplines and roles.
- Work as a team and collaborate with internal and external geospatial specialists to share innovations and best practices.

Continuous Improvement

- Promote collaboration and innovative thinking across teams, fostering a customer-centric culture.
- Advocate for geospatial capabilities and broader digital ways of working within infrastructure and across KiwiRail.
- Identify opportunities to enhance processes and capture lessons learned for future improvements, including recording of ideas and enhancements that are not currently the most urgent or important.
- Drive a culture of innovation, encouraging new approaches to challenges.

Health, Safety and Wellbeing

- Integrate safety and hazard management within geospatial datasets and app solutions, to support safer ways of working.

- Comply with all rail safety system standards, procedures, and statutory requirements.
- Proactively manage health, safety, and environmental hazards, ensuring safe outcomes for staff, contractors, and the public.
- Report all incidents and hazards promptly and contribute to KiwiRail's zero-harm objectives.

Key challenges

- Upgrading complex legacy applications with modern user-friendly tools for a wide range of users with diverse technical capabilities and professions.
- Driving innovation and uptake of new technologies as users adapt and engage with new ways of working.
- Ensuring accuracy and efficiency in geospatial data management and visualisation, while prioritising the most urgent and important functions to meeting project deadlines.

Key Relationships		Manage /Lead	Deliver to	Collaborate with	Advise or inform
Here are the key relationships relevant to this role					
Internal	Geospatial application upgrade project team		✓	✓	✓
	Infrastructure & Metro network teams		✓	✓	
	ICT and other GIS specialists		✓	✓	
	Other KiwiRail Business Units			✓	
	Asset Information			✓	
External	Vendors and contractors			✓	
	Project teams			✓	
	Key stakeholders including NZTA, Regional Councils & Rail Operators			✓	

What you will do to contribute

Health Safety and Wellbeing	• Identify and record hazards, support safer ways of working with geospatial datasets and tools • Ensure compliance with KiwiRail's health, safety and wellbeing policies. • Report incidents promptly and foster a safety-first culture • Respond effectively to safety incidents and near-misses • Support team members' physical and mental health
Customer Focus	• Understand users' challenges and provide tailored geospatial solutions. • Collaborate across teams to ensure customer needs are met. • Enhance user experience through innovative tools and processes. • Support a customer-focused culture at KiwiRail • Develop solutions to meet customer requirements • Work with colleagues to improve customer outcomes
High Performing Teams Skills	• Share expertise with teams to upskill members in geospatial technology to feel supported while exploring new ways of working • Foster collaboration between KiwiRail's digital infrastructure team and other business units. • Provide timely and constructive feedback • Actively seek diverse perspectives in problem-solving • Identify opportunities for coaching and mentoring
Commercial Acumen	• Optimise resource use by automating processes and reducing duplication. • Deliver cost-effective geospatial solutions that align with project objectives and are the current highest priority. • Consider long term financial implications when making recommendations
Innovation	• Deliver professional, high-quality ArcGIS Enterprise solutions with attention to detail. • Prototype new ways of visualising information including 3D and geospatial dashboards. • Bring your own creativity and initiative to try fresh ideas and alternative solutions including use of AI. • Build and deploy mobile-optimised applications including off-line capabilities when required.

Decision Making

The position is accountable for decisions that impact other team members and relevant stakeholders on day-to-day operations.

Key decision-making requirements of the position include:

- Prioritisation and alignment to current, agreed scope
- Risk management decisions including the safety of staff and contractors using geospatial technology

Human Resources Delegations	As per HR Delegation policy
Direct reports	Nil
Finance Delegations	Nil
Budget (operating and capital)	Nil
Travel Delegations	Nil
Statutory powers	Nil

Physical demands and the nature of work

This role is administration-based and requires:

- prolonged sitting and high computer usage
- limited walking, standing, twisting, bending (at the waist), crouching (bend knee)
- carrying of laptop and paperwork when alternating between home and office
- limited lifting of up to 7 kg archive boxes

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

- You have at least one year of geospatial work experience using ESRI software, including ArcGIS Online/Enterprise and ArcGIS Pro.
- You have excellent analytical and troubleshooting skills.
- You're familiar with configuring ArcGIS Enterprise/Online webmaps and Experience Builder applications.
- You can create automated workflows using tools like FME.
- You have experience working with asset data and geospatial solutions for construction or infrastructure projects.

Ways of working / Work-related qualities

- You're adaptable and open to learning new technologies and processes in a dynamic environment.
- You have strong communication and collaboration skills, enabling you to work effectively with diverse teams.
- You're passionate about innovation and using geospatial tools to drive continuous improvement.
- You're detail-oriented, ensuring accuracy in geospatial datasets and project deliverables.
- You prioritise safety and contribute to creating a zero-harm workplace.

Other Requirements

- You can pass regular drug and alcohol screenings
- You have a current and valid NZ Driver's Licence
- You are willing to travel to KiwiRail sites including field testing apps and training users as required.

Qualifications

You need:

- You have a tertiary qualification in GIS, Geography, Architecture, Engineering, IT, or a related field