



# Wāhanga 4: Ngā Whai Whakaarotanga Tūāhanga Part 4: Infrastructure Considerations

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# Wāhanga 4: Ngā Whai Whakaarotanga Tūāhanga Part 4: Infrastructure Considerations

## Tiro whānui

Overview

This section outlines important considerations for infrastructure in response to Part 3 – Our Growth Plan. It details social infrastructure, transport, three waters infrastructure, and electrical networks, highlighting what is needed to support future growth.

Our Places looks at how the sub-region will grow over the next 30 years and where this growth will occur. This helps developers and infrastructure providers better understand future growth in the sub-region. It also enables infrastructure providers to plan for where major investments are needed. A prioritised, staged approach to servicing future growth provides a more realistic and achievable basis for securing funding in future Long-Term Plans to meet infrastructure needs in Priority Growth Areas.



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# **Tūāhanga ā-Pāpori** Social infrastructure

We need to set realistic expectations for the quality and extent of social infrastructure we can afford while still supporting overall wellbeing and quality of life in our communities. The level of social infrastructure varies across the sub-region and will continue to do so due to affordability challenges.

We need to make smart investment decisions to maximise the benefits, such as creating multi-use community hubs and open spaces that support recreation and public use and meet the diverse needs of our communities, including an ageing population. This includes supporting marae as community hubs, particularly in rural areas.

Our natural environment is integral to our lifestyle, social wellbeing and what makes the Eastern Bay of Plenty unique. Ensuring good access to parks, reserves and open space (including forests and coastal areas) is key.

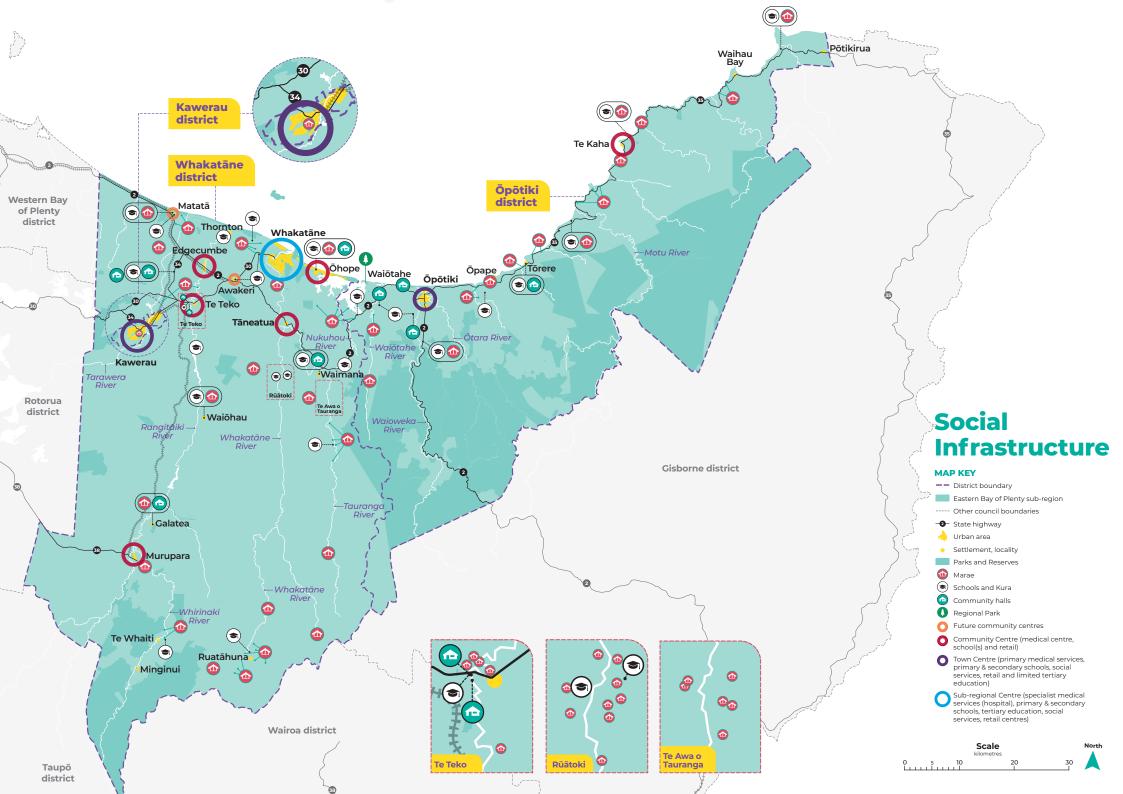
# What is social infrastructure?

Social infrastructure includes:

- **Public amenities**: Parks, reserves, playgrounds, libraries, sports facilities, halls, museums, community centres, and pools owned by councils.
- **Government services:** Schools, education, and healthcare facilities.
- **Marae:** Central to iwi and hapū identity and maintaining cultural practices.

These facilities support strong, healthy, and vibrant communities. They are crucial for our social and cultural wellbeing. Marae and community halls also play a vital role during natural hazards and other emergencies. Providing these amenities and services is essential for supporting current residents, attracting new ones, and maintaining our lifestyle in the Eastern Bay.





## Social infrastructure in response to growth

In the future, social infrastructure actions will focus on:

- Using existing schools to support growth: Existing schools generally have some capacity to accommodate growth and are supported by good bus options. Because building new schools is expensive, the focus will be on maximising use of the existing school network and expanding current schools where necessary. New public schools are unlikely to be required to meet the expected growth.
- **Planning facilities to support future growth:** New facilities will be planned in Priority Growth Areas to match the scale of expected growth and meet future service needs. For example, Awakeri already has a school and community hall, and as the area grows, it will require additional parks and reserves.
- Co-ordinate and target investment for facilities: Community infrastructure is predominantly funded by ratepayers and grants from various organisations, including charities. Marae are funded through a combination of self-funding (by iwi, hapū or whānau) and government grants. Directing investment through a strategic facilities plan is key to making the best use of available funding.
- Supporting marae as multi-functional
  hubs: Marae hold deep significance in Māori
  culture and play a crucial role in the Eastern

Bay's social and community infrastructure. They often serve multiple functions, not only as centres for cultural wellbeing and community gatherings but also as Civil Defence community hubs. Marae host a range of activities, from weddings, tangihanga, hui, and other celebrations. They can also accommodate services such as education, kōhanga reo, support services, hauora (medical centres) kaumātua housing, and other papakāinga.

- **Meeting diverse needs:** We need to support both an aging population and young Māori by providing facilities that accommodate all ages. Demand for indoor sports facilities is growing and activities like walking, cycling, and swimming remain important for all ages.
- Local placemaking and community plans: Revitalising communities requires locally driven projects and involvement from residents. Community plans document and prioritise community aspirations, providing a pathway to achieve them. Strong partnerships between councils and communities are key to achieving aspirations.
- Good access to parks, reserves and recreation facilities: Maintaining and improving access to active and passive recreation is important for mental and social wellbeing. This includes walking and cycling networks, which must be accessible and

support a range of uses. New greenfield areas will be structure planned to include parks and recreation opportunities, while reserve management plans cover existing urban areas.

- Creating multi-use open spaces: Parks and reserves are increasingly required to serve a variety of community needs, including active and passive recreation, walking and cycling links, community gardens, and cultural gatherings. They also support ecological connections, sustainable infrastructure (e.g. solar panels, rainwater collection), and climate resilience through shade and stormwater management while strengthening connections to nature and celebrating local cultural identity.
- Recognising the value of our natural environment for social wellbeing: Outdoor activities like hunting, fishing, and boating are integral to our lifestyle and what makes the Eastern Bay unique. We have access to extensive open spaces, forests, rivers, and coastlines. There are walking and cycling trails, such as the Motu Trails Cycleway, and numerous walking tracks within Te Urewera and Whirinaki Forest Park. Making use of these natural assets and existing parks and reserves supports community wellbeing.

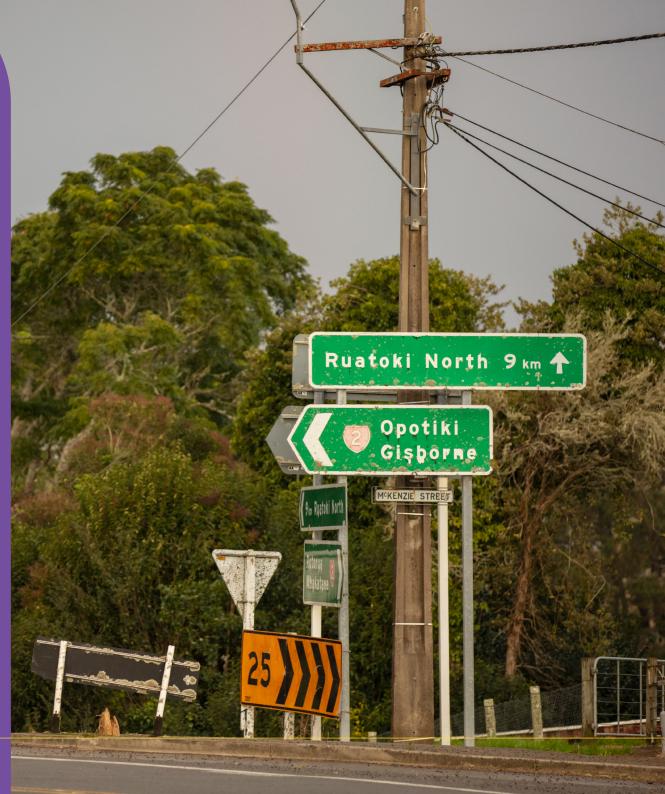
# **Te tūnuku me te tomopai** Transport and accessibility

Well-functioning transport infrastructure is essential to the continued sustainability, growth, and economic success of the Eastern Bay.

Existing industries and new development opportunities are expected to influence the volume of freight transported in the Bay of Plenty.

The State Highways, the rail network and key local roads are vulnerable to damage and closure due to flooding, landslides, coastal erosion, and rising sea levels leading to coastal flooding.

Providing safer, more reliable and affordable access to transport services and choices will unlock opportunities for people and communities.



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### Where are we now?

#### The Eastern Bay has a substantial road network, including several State Highways (SH 2, SH 30, and SH 35). Heavy commercial

vehicles use key strategic routes daily, travelling to the Port of Tauranga, along the East Coast to Gisborne and south to Murupara. Commuting also occurs across the sub-region. The Whakatāne and Kawerau Districts share interdependent labour markets, while Ōpōtiki remains more independent, with fewer people commuting either in or out. Urban growth and commercial development around Paengaroa, at Rangiuru Business Park and along Rotorua's Eastern Corridor will also influence commuting patterns on the road network.

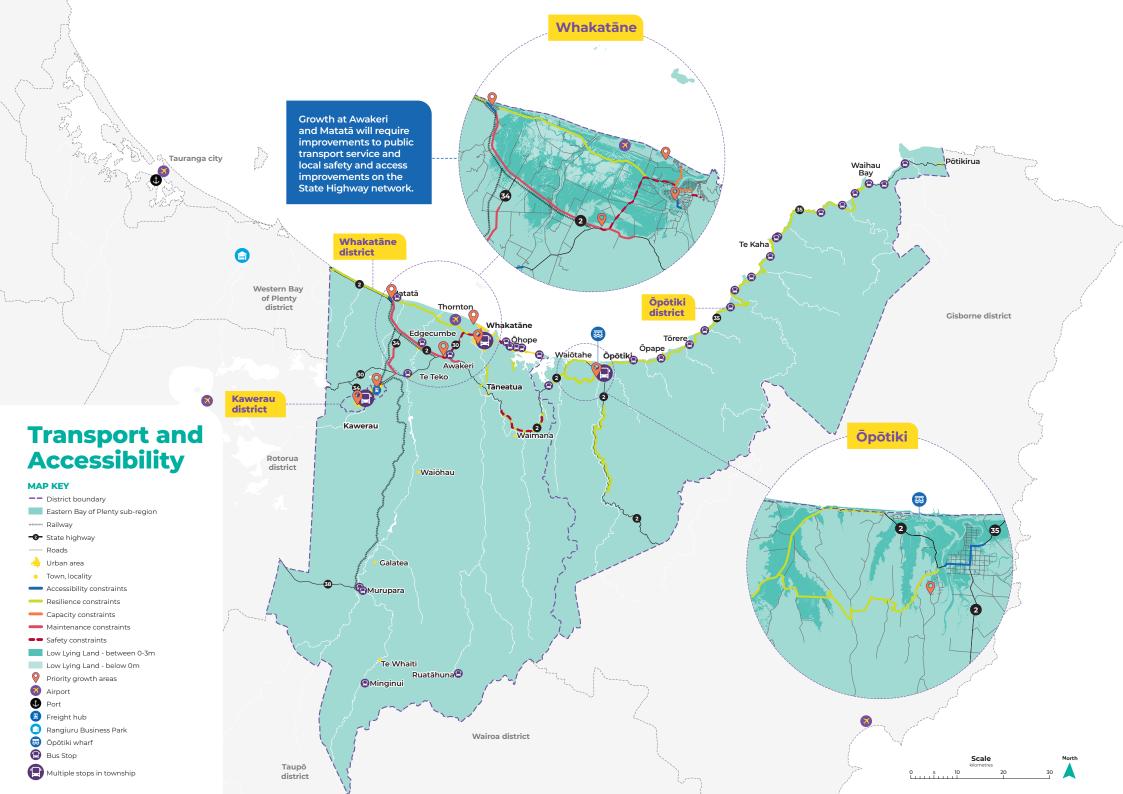
#### The East Coast Main Trunk line, running 182 km long from Hamilton to Kawerau and Murupara, carriers over a third of New Zealand's rail

**traffic.** A direct link from Kawerau to the Port of Tauranga enables the delivery of products for export. This infrastructure plays a pivotal role in connecting people and freight, making a wellfunctioning road and rail network essential in supporting the sub-region's economic growth and development. As growth has occurred, higher volumes of traffic have created capacity issues in some areas, leading to traffic congestion and safety risks for some communities. The Whakatāne Bridge is a key link into Whakatāne town and carries infrastructure including three waters, telecommunications, gas, and power to residents and businesses. Entry onto the bridge is congested during peak travel times, and having a single point of access across the Whakatāne River creates vulnerability, particularly in case of emergencies or natural hazards. Communities dissected by State Highways, such as Ōpōtiki, Matatā, Awakeri, Edgecumbe, Tāneatua and Te Teko, also face safety risks at intersections and for walkers and cyclists crossing these main thoroughfares. NZ Transport Agency Waka Kotahi (NZTA) plans to complete designs for safety improvements on SH 30 between Awakeri and Whakatāne within the current Long-term Plan period. Currently, this design process does not account for projected growth in the corridor, creating a significant risk that the proposed roundabouts will be over capacity once implemented or shortly thereafter.

The State Highways, rail network and key local roads are vulnerable to damage and closure due to flooding, landslides, coastal erosion, and rising sea levels leading to coastal flooding. A changing climate is also exacerbating these hazards, impacting travel reliability and safety and increasing maintenance and reinstatement costs. Additionally, there are significant safety issues on some parts of the road network.

Regular public transport services operate between Whakatāne and Tauranga. However, services between other townships are limited. Whakatāne currently operates bus services for residents within the town. As the township grows and the population ages, planning for future public transport must be prioritised to ensure reliable connections for more residents.

Existing urban areas have good walking connections and progress is being made to deliver cycle trails that improve safety and encourage more active transport modes. However, coastal communities have limited connections between townships such as Õpōtiki, Waiōtahe and Tirohanga, with limited connections outside of the Motu Trails Cycleway.



### **Response to growth**

#### Safeguarding the strategic road network to ensure reliable transport for existing and new

industries will be a key focus. Several existing industries and new development opportunities are expected to impact the amount of freight moved in the Bay of Plenty. Freight and resilience are closely linked, as reliable transport networks significantly impact transport costs for businesses. Reliable transport networks give businesses the confidence to plan and invest for the future. NZTA plays a role in safeguarding the strategic road network for freight. This requires a multi-faceted approach that includes safety improvements, resilience building, capacity enhancements, collaborative planning, and strategic decision-making to ensure the efficient and reliable movement of goods.

# Ensuring the road network can handle enough traffic without long delays is crucial. Further

work is needed to understand the capacity limits and vulnerability of transport networks and infrastructure, such as the Whakatāne Bridge. The outcomes of this work will be critical in assessing how much growth the Eastern Bay can sustain before key pieces of infrastructure start to limit growth. Growth that increases pressure on the transport network or creates unsafe situations must be carefully assessed, with mitigation options evaluated and planned for.

# We must ensure people and goods move more efficiently and effectively along transport

**routes.** Priority Growth Areas will need to reduce demand on the transport network by offering safe, accessible, and connected active travel options. These should link residential areas with jobs, schools, services, and recreational facilities, reducing the need for long-distance travel. With many townships less than 30 minutes apart by bike, there is potential for a linked network of bike paths or trails connecting townships and main centres, supporting low-emissions transport. As the population ages, public transport options across the Eastern Bay will need to expand to ensure access to essential services for those unable to drive.

#### Further work is needed to identify the next generation of substantial transport investments and large projects. The three district councils are currently working on addressing infrastructure and service provision to reflect anticipated growth and demographic needs. Over the next few years, the focus will be on delivering transport projects that largely target improving resilience and maintaining service levels. Development of a Transport System Programme will begin to support growth identified in the spatial plan and enhance network resilience. Continued collaboration with NZTA will support the delivery of a high-quality, integrated, safe, and efficient transport network.

## **Transport and accessibility for Priority Growth Areas**

#### Awakeri

Safety	Awakeri is dissected by SH 2 and SH 30, both key freight routes that create safety risks for walkers and cyclists crossing these main thoroughfares. The stretches of highway between Lake Rotomā and Awakeri (SH 30), Awakeri to Ōpōtiki (SH 2) and Matatā to Awakeri (SH 2) all experience safety issues. State Highway 30 between Awakeri to Whakatāne has significant safety concerns and has been identified as a high-risk rural road by NZTA. As the main transport route between Rotorua, Whakatāne and the East Coast, the road is used by a range of users, including daily commuters, freight, local traffic, cyclists, motorcyclists, tourists, and agricultural machinery. The roads leading to Awakeri will need to be prioritised by NZTA for improvements to ensure that future growth does not worsen the risks already present for road users.
Capacity and accessibility	While Awakeri is well connected to employment locations, future employment growth throughout the sub-region is likely to increase traffic volumes on State Highways, which could lead to severance issues for residents accessing community facilities. Infrastructure investment to improve connectivity throughout the settlement will be required. Planning an urban form that reduces travel demand by including walking and cycling infrastructure is a priority. Further investigation into improving public transport connectivity between Whakatāne and Kawerau, once the population grows, will be required.
Resilience	State Highway 2, Awakeri to Ōpōtiki, has a range of resilience challenges, with limited local road detour options, which impact accessibility into Awakeri. A long-term view of the future of this network is required to provide reliable access. NZTA has allocated funding to investigate resilience improvements required for SH 2 between Awakeri and Ōpōtiki, as well as the Waioweka Gorge between Ōpōtiki and Gisborne. However, no funding has been committed for implementation. Resilience improvements will need to focus on addressing areas at risk of slips, flooding, coastal erosion and coastal inundation.

#### Whenua Māori west of Coastlands

Capacity and accessibility	Housing growth west of Whakatāne is expected to place increased pressure on the Whakatāne Bridge, which will require assessment as part of the planning process. Further investigation is needed into the design of specific investments to improve access to Whakatāne, support growth, and improve network resilience. Localised capacity constraints are likely at key intersections, requiring infrastructure upgrades that can be staged alongside future growth. Walking and cycling infrastructure will be a key component of the growth area with links into Whakatāne township.	
Safety and resilience	The design and planning for the area will need to include resilient, safe roading infrastructure that integrates with the surrounding network to ensure continuous mobility for residents.	

#### Matatā

	apacity and ccessibility	Growth at Matatā will be influenced by increased employment opportunities in Kawerau, Rangiuru Business Park and Whakatāne township. Localised capacity constraints at key intersections are likely and will require infrastructure investment
S	afety	Increasing traffic volumes along SH 2, which runs through Matatā, will require investment in the road infrastructure to reduce safety risks at intersections, particularly for walkers and cyclists crossing this main thoroughfare.
R	esilience	State Highway 2, and the East Coast Main Trunk rail line west of Matatā, is vulnerable to landslides, localised flooding and coastal inundation. With the road and rail susceptible to closures that affect the ability of people and goods to access key destinations, KiwiRail and NZTA will need to investigate options to improve resilience along this route.

### Hukutaia Growth Area - Ōpōtiki

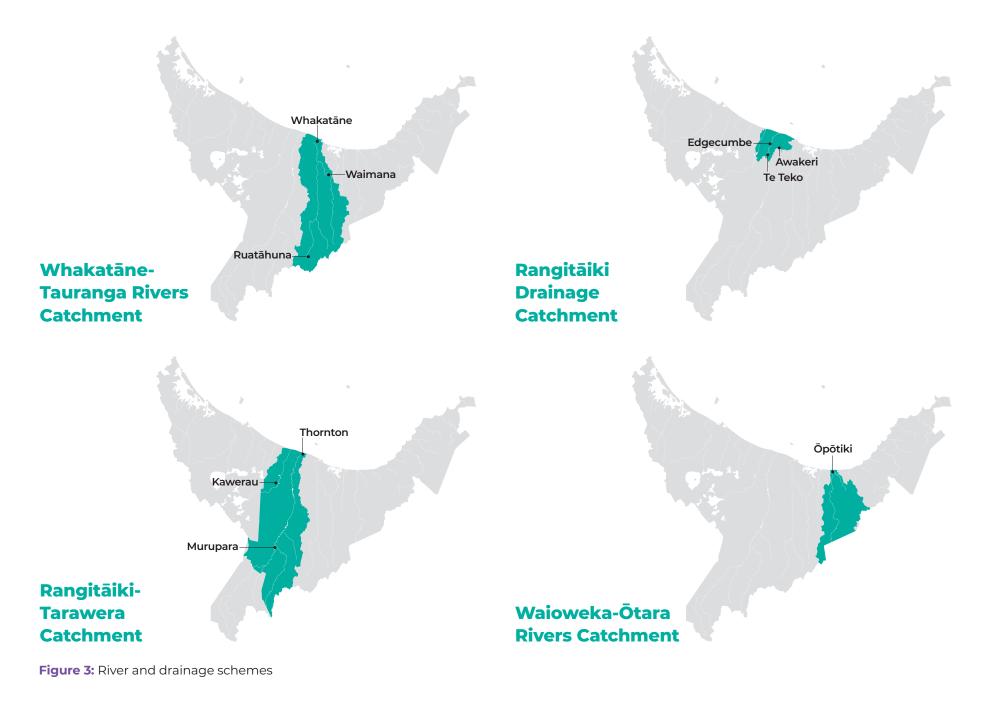
Capacity and accessibility	State Highway 2 separates Hukutaia Growth Area from Ōpōtiki township, creating intersection safety risks for walkers and cyclists that must be identified and addressed through investment.
Safety	The area is close to town services, allowing many trips for work, education, and services to remain local, reducing travel demand. Improvements to the area are needed to unlock development potential, including upgrades to the SH 2 / Woodlands Road intersection, along with a new road link north to employment areas along SH 2. Improvements for pedestrians, cyclists, and mobility users should be included, with the potential for a new walking and cycling link across the Waioweka River at Stoney Creek Road to connect with nearby employment.
Resilience	State Highway 2, Ōpōtiki to Awakeri and the coastal section of SH 2 are vulnerable to damage and closure due to flooding and landslides, which impacts accessibility into Ōpōtiki (see Awakeri comments).

# **Te Whatunga Wai Toru** Three Waters Network

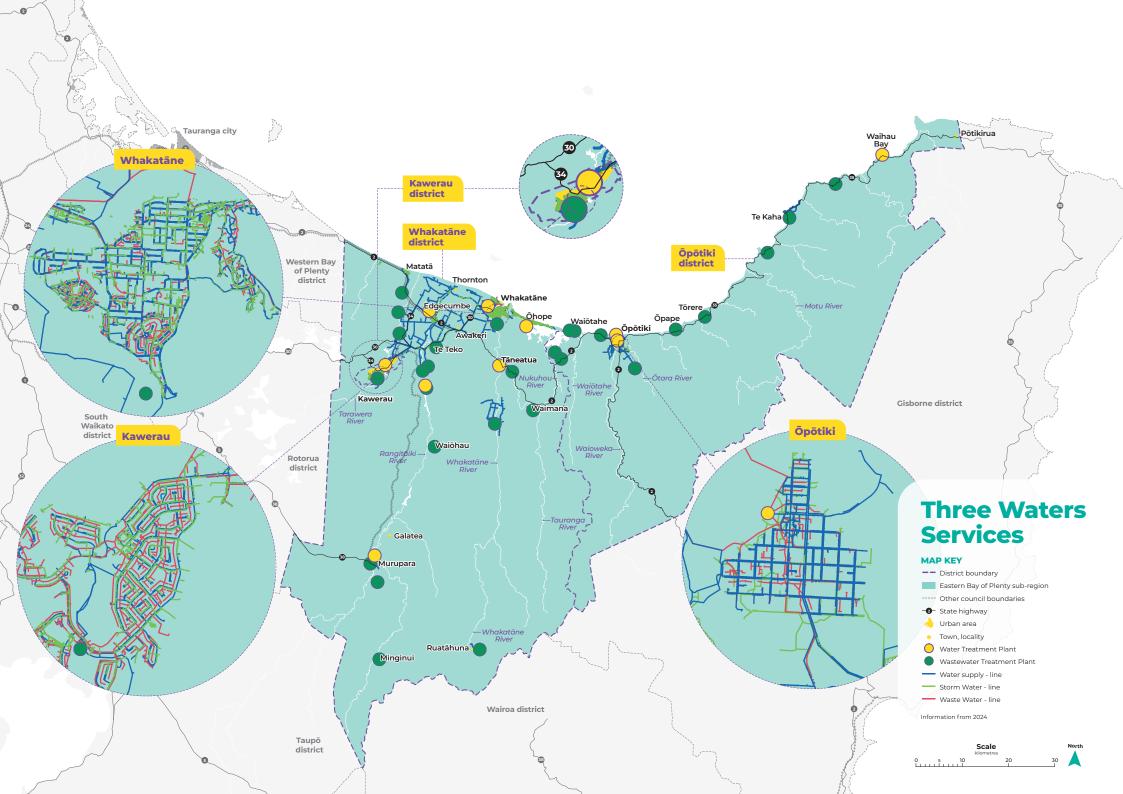
### Where are we now?

The Three Waters network includes drinking water, wastewater, and stormwater infrastructure, including piped networks, treatment plants and pump stations. These utilities are essential for unlocking areas for growth. Supporting development will require well-timed, appropriately designed, and cost-effective infrastructure solutions. Council managed Three Waters infrastructure exists in all urban spaces within the sub-region. The Toi Moana Bay of Plenty Regional Council (BOPRC) also manages river schemes across the sub-region, protecting several existing settlements and rural land users from river flooding. These schemes are identified as regionally important infrastructure and include the Whakatāne-Tauranga River Scheme, the Waioweka-Ōtara Rivers Scheme, the Rangitāiki Drainage Scheme, and the Rangitāiki Tarawera Rivers Scheme.

The BOPRC Infrastructure Strategy identifies affordability, a changing climate and residual risk as significant issues for the river scheme. For this reason, it will be critical that integrated planning processes protect the agreed level of service to ensure the safety and wellbeing of the community, as well as affordability, now and in the future. For the foreseeable future, flood protection will continue to play a key role in supporting community wellbeing. However, as conditions change, more adaptive and resilient approaches may need to be explored to ensure communities remain safe and resilient to the effects of natural hazards and a changing climate.



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## **Three waters for Priority Growth Areas**

#### Awakeri

Water supply	Longer-term growth projections would be supported as part of the wider Whakatāne Plains Water Strategy, linking Ōtūmahi with Whakatāne via Awakeri. Upgrades will be required to the trunk mains that currently serve Awakeri. An existing reservoir in the hill above Awakeri will help support increased demand in the future. A new reservoir above the Ōtūmahi Water Treatment Plant will be commissioned in the middle of 2025. This can support growth in Awakeri as well as wider plans to integrate the Whakatāne and Rangitāiki Plains water schemes.
Wastewater	Awakeri could be served by a standalone treatment plant or integrated with Edgecumbe (or Whakatāne). Further feasibility studies are needed around treated wastewater discharge to achieve the intended scale of development. Two primary options are being considered: 1. Pumping raw wastewater to the Whakatāne Treatment Plant, which would require a new pipeline and pump station. 2. Developing a new wastewater treatment plant locally, with the potential to accept wastewater from nearby communities. Iwi have highlighted a preference for a best-practice approach that delivers environmental outcomes. Generally, treating wastewater at the source is seen as a preferable option to conveying untreated wastewater at large distances.
Flood management	As Awakeri is located within the Whakatāne-Tauranga River Scheme, an integrated stormwater catchment management plan will be needed to inform future growth planning. This plan will consider how existing flood schemes, including the Te Rahu Canal, are protected and how downstream flooding risk is managed to ensure existing and future communities are resilient to the effects of a changing climate. This approach will guide the best practicable options for managing stormwater runoff within the area and take a holistic approach to water-sensitive urban design to manage flood risk.

## Whenua Māori west of Coastlands

Development involving whenua Māori west of Coastlands would benefit from further feasibility studies on the impacts of the existing scheme and overall network for water and wastewater.

Water supply	While existing water connections serve the nearby Whakatāne Golf Course, existing properties currently receive a low service level from the reticulated water network, with consumers often experiencing low water pressure, particularly during summer high-demand periods. This existing limitation restricts council's ability to connect additional properties to the network. Where permitted, properties are asked to install on-site water tanks connected to the network via restricted feed. In the longer term, more intensive housing growth would need to be supported by network upgrades as part of the wider Whakatāne/Plains scheme integration strategy.
Wastewater	Existing wastewater infrastructure serves the Coastlands area and Shaw Road but does not extend down Thornton or Golf Links Roads.
Flood management	Existing stormwater infrastructure serves the Coastlands area and Shaw Road but does not extend down Thornton or Golf Links Roads. The area, predominantly coastal dunes, relies on ground soakage and natural drainage to the Orini Canal.

#### Matatā

Water supply	The water supply from Jennings Spring is sufficient for short to medium-term growth. Integrating Matatā with the plains scheme would be a necessary option. This would also increase the resilience of the Matatā supply as it would not be reliant on a single water source.
	Planning for a new wastewater system is currently underway; however, it is not yet fully funded. Matatā growth would be incorporated into the future Matatā scheme, which would have growth provisions at the start.
Wastewater	The current wastewater management system in Matatā is failing. Despite ongoing efforts over several decades to establish a centralised wastewater solution, the town continues to struggle with poor wastewater management. The high groundwater levels and proximity to sensitive environmental areas render the current individual property septic tanks and disposal fields ineffective and unsuitable for the local environment. As a result, effluent from these ageing systems is seeping into the environment, contaminating land and water that are crucial to the community and mana whenua relationships and connection with their rohe.
Flood management	Stormwater management in Matatā is sensitive and can be influenced by inland and coastal flooding, with runoff draining through wetland areas to the coast. Developing the area will require a comprehensive catchment-wide stormwater management approach that addresses existing and future risks, manages effects on sensitive receiving environments like Te Awa o Te Atua, and informs future growth planning.

#### Hukutaia Growth Area

Water supply	Hukutaia has enough water capacity to support low levels of growth, and planned upgrades will facilitate staged development. A utilities bridge river crossing from Stoney Creek Road will improve water pressure and increase resilience for Hukutaia, Ōpōtiki, and Waiōtahe. As Hukutaia's development options and growth phasing become more defined, further investigations into water demand management measures can be explored to optimise supply and mitigate future risks.
Wastewater	For wastewater, two primary options are being considered - upgrading existing infrastructure to transport waste to the Wastewater Treatment Plant in Ōpōtiki or - establishing a new treatment plant in Hukutaia. The latter option would offer resilience and reduce the burden on the existing infrastructure.
Flood management	An integrated catchment management plan will take a catchment-based approach to inform future growth planning. It will help manage the effects of a changing climate, protect the agreed levels of service of the flood scheme, and address any increase in downstream risk, including potential impacts on Ōpōtiki township. An integrated catchment management plan will also guide best practicable options for managing stormwater runoff within the new growth area and take a holistic approach to water-sensitive urban design.

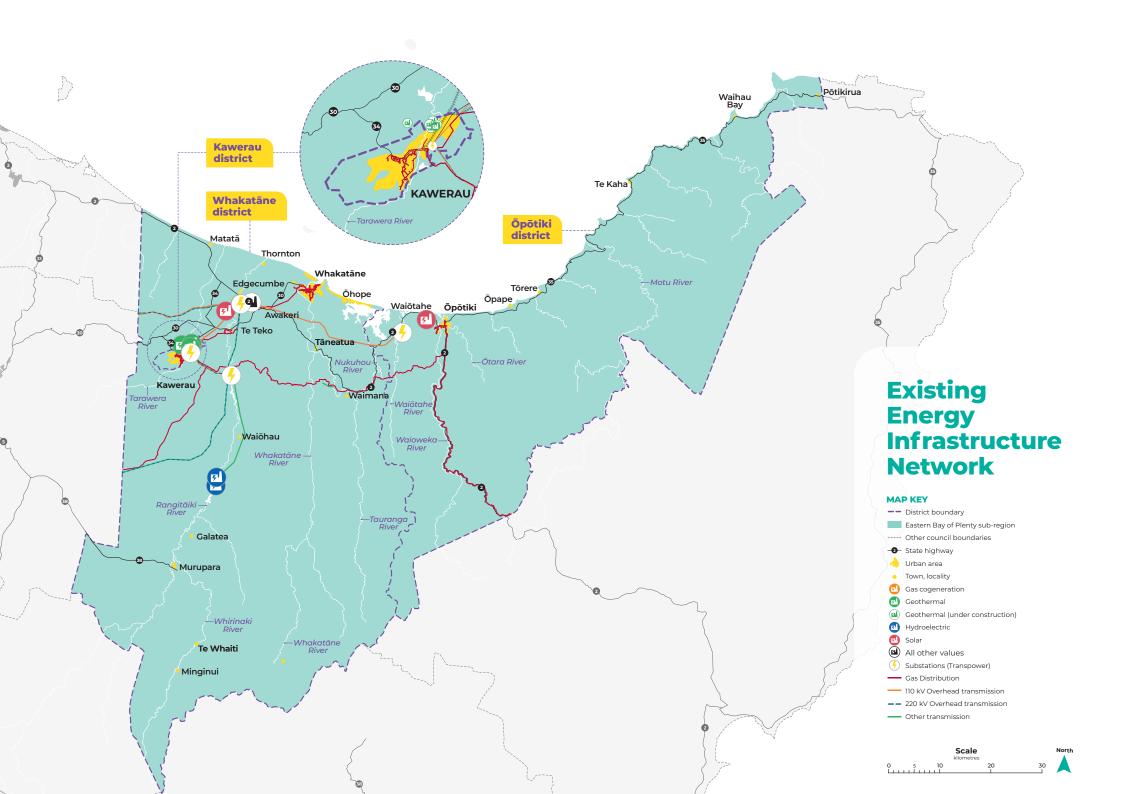
# Ngā whatunga hiko Electricity networks

### Where are we now?

Electricity infrastructure plays a crucial role in supporting both existing communities and future development. Horizon Energy currently owns and operates the electricity distribution network in the sub-region, while Transpower, a state-owned enterprise, manages New Zealand's high-voltage transmission network, the National Grid.

The transmission network in the Bay of Plenty comprises both high-capacity 220 kV and lower-capacity 110 kV circuits. Electricity generation is concentrated in the eastern part of the region, particularly around Kawerau, while demand is higher in the central areas of Whakatāne and Ōpōtiki. This creates a predominant east-to-west power flow, connecting major hydro and geothermal generation to the North Island's transmission backbone.





### **Response to growth**

The spatial plan looks ahead to 2055, envisioning an electricity network that is resilient, future-ready, and capable of supporting the Eastern Bay's continued growth and transformation. Targeted investments in grid upgrades, additional substations, and enhanced conductor lines can strengthen the network's ability to support the development of Priority Growth Areas. These improvements will also enhance reliability, minimising the risk of outages and disruptions as demand increases. Collaboration is at the heart of our approach, ensuring that our co-management partners and key stakeholders play an active role in shaping the region's future. To create an electricity network that meets the needs of our sub-region, we will continue working closely with Transpower, Horizon Energy, central government, iwi, and local businesses.

## **Electricity infrastructure for Priority Growth Areas**

Awakeri	Currently has sufficient capacity for the existing population. However, capacity for growth is another required improvement. The current 11kV feeder to Awakeri can only support an additional 3.6 MVA. To accommodate the scale of anticipated development, the 11kV feeder will need to be upgraded to ensure adequate electricity supply.
Whenua Māori west of Coastlands	There is electricity infrastructure along Golf Links Road to the Golf Course. The networks currently supply the papakāinga development (near the golf course) and can support an additional 150 residential dwellings. The feeder can supply up to 1.9 MVA, equivalent to 540 residential dwellings. Horizon Energy has confirmed that a further network upgrade would be required.
Matatā	The current electricity network is constrained during peak periods, and Horizon Energy plans to develop a new substation at Manawahe to accommodate future growth in the area. Development of the new substation may need to be brought forward if demand increases and Matatā develops faster than the timing of the new substation funding proposal.
Hukutaia	Hukutaia requires upgrades to its electricity network to support growth. Horizon Energy has plans to establish a new dual sub-transmission supply to Ōpōtiki by 2027. Following the completion of this project, a new 11kv feeder system can be established, catering to the electricity needs of approximately 2,000 residential dwellings and industrial developments.



Eastern Bay Spatial Plan

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