



Infrastructure Strategy

Proposed commencement: 01 July 2024

Proposed review date: 01 July 2027

Executive summary

Kaipara District continues to grow, it continues to attract visitors to its many beautiful shores, and it continues the many and varied primary industry activities. The infrastructure of the district needs to support the key urban towns, villages and settlements that make up this vibrant area via the community outcomes and the vision of 'Kaipara – the place to be'.

This infrastructure strategy provides a response to the needs of the growth, economic changes and key challenges with a three-year focus on recovery from the adverse weather events of 2023. These weather events disrupted our level of service across many activities, particularly roading, open spaces and stormwater networks, and it will take time to both complete the remediation works and return to the routine maintenance schedules.

An additional challenge comes from the re-introduction of activities across the waters portfolio creating an environment where investment ability over the next three years is further reduced to ensure rates are kept as reasonable as possible.

While we focus on recovery we must also look to the future and start planning for it in ways that will add economic value to our ratepayers and improved levels of service. For example:

- Flood Protection and Land Drainage – re-assess the responsibilities of ownership, management and control that have been unchanged since amalgamation of Councils in 1989
- Solid Waste – determining how we implement the Waste Management and Minimisation Plan so that Kaipara is contributing to achieving the New Zealand Waste Strategy goals for 2030.

The aspiration in this strategy may by necessity be tempered with the realism of our situation, however, we cannot lose sight of the drivers of built in resilience, accessible assets, increased regional collaboration and enabling of economic development that will springboard us into the next horizons.

Improving asset management information will guide planning and decision making to ensure we emerge from our recovery focus with a clear outline of what is needed to support our current assets as well as what is needed to support the various communities of the district in their growth and economic outlooks.

Significant project timeline schematic

PART 1 About the Strategy

1.1 Purpose and Scope

Leveraging the expansive approach from the previous infrastructure strategy, a more concise perspective is presented here in order to provide focus for the actions required to achieve the community outcomes across the district.

The Local Government Act (2002) stipulates that a local authority must, as part of its long-term plan, prepare and adopt an infrastructure strategy for a period of at least 30 consecutive financial years.

In response to this LTP taking a three-year view, this infrastructure strategy will focus on a three to ten-year period that takes us through the storm recovery actions and into the next horizon for progression. This will see some previous aspirations tempered with the realism of the situation in which we find ourselves. The building of resilience across the district, particularly around our waterways and transport corridors, takes a larger focus for storm recovery reasons and also in order to ensure there is connection for our communities. Access and inclusion across our asset base, and collaboration with groups and organisations within the district, the region and even wider are drivers to achieve the activities included in the associated Activity Statements.

The relationship of the infrastructure strategy to other strategic documents remains the same with additional support for the increasing focus on enabling economic development and growth.

1.2 Stakeholders/Audience

There will be many individuals and groups that will find the information contained in the infrastructure strategy of interest. There will also be many groups that will be part of the collaboration needed to achieve what we propose to do. The table below shows the key stakeholders.

External Organisations	Partners	Collaborative and co-funding organisations
Taumata Arowai and Northland Regional Council (NRC)	Kaipara residents and ratepayers	Ministry Business, Innovation and Employment (MBIE)
Fire and Emergency Organisations	Elected members	New Zealand Transport Agency (NZTA)
Government ministries	Mana Whenua	Ministry Primary Industries (MPI), Department of Conservation (DOC), Ministry for the Environment (MFE)
Infrastructure providers	Northland Inc and other territorial authorities	Northland Transportation Alliance (NTA)
Council auditors and credit agencies	Land developers and landowners wishing to develop	Fellow Northland Councils

Infrastructure can enable and support the wider outcomes our community is looking to achieve. While some of the infrastructure is almost invisible (below ground) and can easily be taken for granted, all the infrastructure exists to serve our communities.

Across Kaipara’s diverse geography and demographics, a ‘one size fits all’ approach may not work. To that end we will continue to engage and collaborate with impacted communities during the design phase of projects, so that integration of community, partners and stakeholders are considered alongside other drivers in the decision-making process.

1.3 Trends Affecting Kaipara

The Kaipara District Environmental Scan was compiled in February 2023 giving a comprehensive overview of all the services available throughout the district and the environment in which Council operates. It includes information on the physical environment, demographic trends, economy and state of the district’s infrastructure, whether Council owned or owned and operated by others.

Understanding what the future holds for Kaipara, both within and outside district borders, is crucial to enable the Council to make educated planning decisions for local infrastructure and the Environmental Scan provides a current assessment as well as forecasts where these can be made.

It is clear from the scan that growth, economic development and regional connections remain the key themes and trends that affect Kaipara and following the adverse weather events of 2023, the roading aspect of regional connections has been exacerbated as needing attention.

Growth

The total number of households in the Kaipara District is estimated to have risen from 7,100 in 2001 to 11,300 in 2022 (Infometrics data). Households are projected to grow to 15,000 in 2054.

SA2 area	Households		Annual growth	
	2022	2054	2024-2034	2034-2054
Kaipara Coastal	1,726	1,851	0.3%	0.0%
Maungaru	784	783	0.3%	-0.3%
Dargaville	2,100	2,499	0.6%	0.4%
Ruawai-Matakohe	1,145	1,165	0.4%	-0.2%
Otamatea	821	875	0.6%	-0.2%
Maungaturoto	557	750	1.2%	0.6%
Kaiwaka	1,058	1,427	1.4%	0.5%
Mangawhai Rural	1,313	2,732	3.3%	1.7%
Mangawhai Heads	1,204	1,913	1.9%	1.1%
Mangawhai	573	868	2.2%	0.5%
Kaipara District	11,282	14,862	1.2%	0.5%

All areas are expected to grow in the period of this LTP and this will be aided by strong net migration figures for New Zealand and the emphasis on regional migration in work visa rules.

These growth projections will be considered in all infrastructure planning and will guide the quantum, size and timing of the need for new assets as well as upgrades to existing assets.

Now with the Three Waters Legislation being repealed, Council is in unfortunate position, where investment over the next three years has been significantly reduced to ensure rates remain affordable. For example, a sum of \$154m over three years was forecasted in the Entity A’s Asset Management Plan, compared to \$32m included in the Councils Long Term Plan. The reduction places Council at risk from statutory non-compliance, asset failure and limiting growth.

Economic Development

Kaipara is experiencing growth in GDP shown by the 2023 increase of 1.7%. This growth was higher than the wider Northland region. Job growth also continued and the unemployment rate, while rising for 2023, remains lower than that for the Northland Region or New Zealand as a whole.

Across the district the agriculture, forestry, and fishing industry continue to be the largest employing sector, despite some fall in employment numbers, while manufacturing and construction are the largest contributors to economic growth over 2013-2023.

Tourism – while a lot of Kaipara’s tourism is still based in nature, accommodation and food services industries are growing as a proportion of the economy as visitor numbers are again on the rise. The close proximity to Auckland continues to be a driver for this with driving times to the district recently improving with the opening of the Puhoi to Warkworth motorway extension.

Infrastructure planning will align with the Economic Development and Growth Strategy to ensure expected outcomes for the community are achieved.

Regional connections

There are many connections within our region with social, cultural, economic and environmental aspects that reflect local government’s wellbeing areas. Significant infrastructure projects in other parts of the region can and do impact these wellbeings for Kaipara. Therefore, in our infrastructure planning we need to consider those impacts and plan for infrastructure that is complementary to or extending of the benefits provided across the district and the wider region.

It is widely considered that improved transport connections with Auckland would assist in bolstering the Northland Economy. Through the adverse weather events of 2023, those transport connections were severely tested when local roads were needed as detours for state highways. They are often not constructed to cope with the increased traffic in the event a detour is put in place.

Working with the other councils in our region can also strengthen the connections needed to ensure the best outcome for all our collective communities. This may be for waterways, transport modes, tourism and economic development.

PART 2 What Are Our Infrastructure Challenges?

Over the three years of this LTP, the first focus is the recovery projects related to the adverse weather events of 2023. Adverse weather events may increase in both frequency and intensity which means that the infrastructure we repair now must have a betterment element applied so that these assets can withstand future events in a much more resilient way.

Other challenges in the next three years are:

- Returning our parks, open spaces and roading to the level of service disrupted so dramatically by the continued weather events of 2022 and 2023 – budgets were spent on urgent clean up and repairs while the standard maintenance schedules were disrupted by both the weather events and the urgent works.
- Meeting customer expectations and legislative requirements – this is particularly true for balancing affordability and providing the services expected of a district such as Kaipara. Introduction of new solid waste initiatives will be an example of this.
- Balancing cost drivers with embedding resilience and environmental considerations at all levels of the Asset Management lifecycle
- Developing the connectedness with central government agencies and the councils within our region to ensure we are working together rather than in a fragmented way
- Keeping the recovery focus while also planning ahead to the next horizon – again balancing available funds, escalating costs and the community wants and needs.

PART 3 How we will manage infrastructure

Complete delivery of the recovery activities and utilise our growing asset information base to establish programmes for the future.

3.1 Approach

While the main focus for managing infrastructure over the next three years is the recovery activities, anything we plan or implement must link to at least one of the community outcomes – prosperous economy, affordable living, dependable roading, vibrant communities and a healthy environment.

The way we procure and deliver infrastructure activities will follow the procurement guidelines and Project Management Office (PMO) practices to ensure good governance. There will be strong focus on safety, social procurement, creating public value, efficiency improvement and environmental impacts.

We will use technology wherever we can to assess and validate the asset information, condition and maintenance required in order to maximise efficiencies of all resources. During the next three years we will assess the technology at hand for operational and asset management use to determine the step change required to make this possible without needing to work outside the systems or supplement the available data.

Significant work was undertaken for the expected establishment of new water entities across the country and the asset management data and planning work will be added to the asset management system to ensure it can be utilised for evidence-based decision making wherever possible.

Our Engineering Standards are being reviewed and when adopted will apply to any, new, renewal or improvements works.

3.2 Funding

Consistent with the Local Government Act 2002 (LGA), the Council budgeting process is iterative. Initial budgets are collated by staff and then workshopped with Council elected members. Once Council agrees the draft budget and feels is in line with community expectations, it is issued for public consultation. Based on submissions received from members of the community, feedback and adjustments are ratified by Council before being formally adopted late July 2024.

Infrastructure is the Council's biggest investment and provides the facilities Kaipara's communities need to be vibrant and prosperous in a healthy environment. The funds needed to provide and keep this infrastructure working mainly come from:

- Your rates – general and targeted
- NZTA subsidies for road maintenance and upgrades
- Development and financial contributions

Funding from external sources is utilised where there is a project or activity that meets the criteria of the available fund and an application to the fund is successful. Several recovery projects are now being funded or part-funded this way and we will continue to monitor possible external sources of funds as they become available.

PART 4 Activity Groups

4.0 Introduction

This strategy comprises seven activity groups

	Roading and Footpaths	Dependable roads that are resilient to adverse weather, and bridges, footpaths and cycleways that connect communities
Three Waters	Water Supply	Sourcing, treating and distribution of quality potable drinking water in a sustainable and environmentally aware manner, including catering for growth
	Wastewater	Collection, treatment and disposal of sewage in a sustainable and environmentally aware manner, including catering for growth
	Stormwater	Management of discharges and collecting of contaminants in a manner that protects the environment and public health, including catering for growth
	Flood Protection and Land Drainage	Land drainage and flood control mechanisms
	Solid Waste	Reduce waste, increase recycling and resource recovery for the protection of the environment and human health
	Open Spaces and Facilities	Provide and maintain a portfolio of reserves, open spaces and facilities for the enjoyment of our communities

4.1 Roothing and Footpaths

The transport activity includes all Council-formed roads, bridges and associated assets, as well as parking, footpaths and cycleways. It excludes private roads and unformed roads. In Kaipara, transport plays a major role in connecting to the key destinations in Northland, and to the rest of New Zealand through Auckland. Our transport assets are critical for people to move around quickly and safely, but also for the movement of goods to drive our primary industries and wider economy. The transport activity seeks to improve customers’ journey experiences by delivering dependable roads for safe, direct and timely journeys with minimal disruptions.

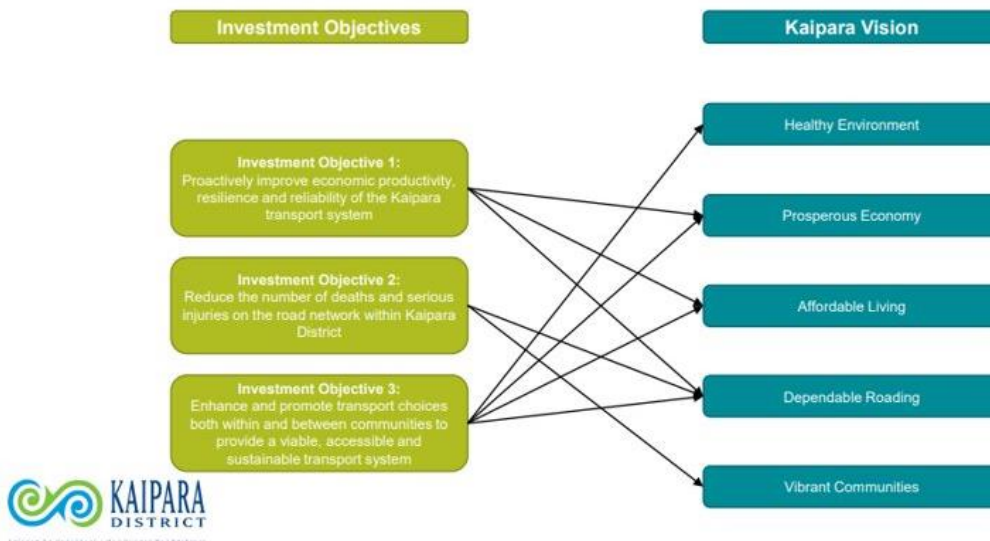
Following the adverse weather events of 2023, the roading network has a vast recovery programme ahead. Immediate repairs were affected to open roads and create transport connections for the communities. Some of these repairs were interim in nature and need to be revisited for a long-term solution. Other damage is still to be repaired as no temporary solution was identified.

The first focus of the three years of this LTP is to continue the recovery programme established after the weather events. This impacts both the maintenance and improvement programmes previously planned in order to ensure both capacity and capability are available to achieve the recovery activities.

The Kaipara District Integrated Transport Response is still a cornerstone of the approach as it meets both New Zealand Transport Agency (NZTA) and central government investment requirements. This response is a plan for the future, taking the community on a journey to establish an improvements programme that addresses requirements of both levels of service and growth.

Further, to this will be the work with NZTA to determine future detour routes in the event of State Highway closures along with the necessary upgrade works identified to ensure local roads are capable of carrying the detour traffic.

Maintenance works also follow this approach for routine and cyclic operational works, as well as any capital renewals works under this umbrella. The investment objectives of both programmes map to the community outcomes of Kaipara’s vision. Resilience, Safety and Transport Choices are considered as drivers for each area in the district and each activity type within this portfolio.



4.1 Water Supply

Council owns, operates and maintains five community water supply schemes for Dargaville (including Bayliss Beach), Glinks Gully, Ruāwai, Maungatūroto and Mangawhai providing them with a sustainable safe drinking water supply.

Outside of these reticulated areas communities rely on self-serviced water supplies, mainly through private water tanks.

Kaipara's water supply networks are quite old, however stood up well to the continued weather events across 2022 and 2023. Storm damage repairs are largely complete and ensuring optimal operation of each system, from raw water source through to treatment, storage and distribution after these repairs is a key focus of this LTP period.

Storm damage was assessed in the immediate and obvious vicinities throughout the network and often with the help of the community calling in issues they were seeing. Now we need to reassess the whole of our systems.

Leak detection programmes will be ramped up to ensure any lingering network damage that had not been immediately obvious is found and repaired. The raw water lines are often in hard-to-reach locations away from the treatment plant and walking these lines will assess condition, identify any illegal connections and identify any natural hazards that need clearing to ensure ongoing supply is not hindered in any way. These activities will aid in planning for the future priorities of the next LTP period.

Significant effort had been put into working with the proposed Entity A (under the now repealed Water Services Reform) to establish an Asset Management Plan (AMP) that would guide the Kaipara through the next 30 years allowing for the increased level of service, growth, environmental impacts and compliance required and expected by our communities and regulatory bodies.

Some of the work around asset data will be brought into our asset management practices and activities from the AMP that support our recovery programme are included in this LTP period. The increased monitoring, sampling and reporting now required for compliance is now operational.

Finalising the decision for Dargaville's water resilience through a preferred storage solution is also required in this LTP period.

4.2 Wastewater

Across the District, Council owns, operates and maintains six community wastewater schemes in Dargaville, Glinks Gully, Kaiwaka, Maungatūroto, Te Kōpuru and Mangawhai providing reliable wastewater services that minimises adverse effects on the public and environment.

There are also a number of smaller wastewater treatment facilities, generally servicing campgrounds and other community facilities such as public toilets. Operations and maintenance funding for these systems come from community facilities budgets and for the purposes of this LTP are discussed in the Open Spaces and Facilities activity area.

While many of the schemes are relatively young and generally in above average condition, the continued weather events and particularly ex-cyclone Gabriel caused significant havoc across the networks. Storm damage repairs are largely complete and ensuring optimal operation of each system, from collection through to treatment, storage and disposal after these repairs is a key focus of this LTP period.

Stormwater infiltration into the piped network and the pond-based treatment plants during these significant weather events places a much-increased burden on the capacity of these parts of the schemes. Assessment of these infiltration points will continue with any breaches on public assets being addressed or planned for future works while issues on private assets will be advised to the property owner for correction.

Significant effort had been put into working with the proposed Entity A (under the now repealed Water Services Reform) to establish an Asset Management Plan (AMP) that would guide the Kaipara through the next 30 years allowing for the increased level of service, growth, environmental impacts and compliance required and expected by our communities and regulatory bodies.

Some of the work around asset data will be brought into our asset management practices and activities from the AMP that support our recovery programme are included in this LTP period. The increased compliance requirements are now operational or in progress.

Activities to ensure both quality, capacity and treated effluent disposal a will continue.

4.3 Stormwater

Five community stormwater drainage schemes for Dargaville, Baylys Beach, Te Kōpuru, Kaiwaka and Mangawhai are owned, operated and maintained by Council. Stormwater assets provided in Glinks Gully, Kelly's Bay, Pahi, Whakapirau, Maungatūroto, Tinopai, Paparoa and Matakohe are predominantly incorporated into the road network.

These act to remove and discharge stormwater in regular and extreme rainfall events, whilst collecting contaminants to protect the environment.

The stormwater networks are a mixture of open drains, pipes, manholes and sumps and it is these assets that were most overwhelmed during the continued weather events of 2022 and 2023. That said the events of February 2023 were of an intensity that would have overwhelmed any system.

Recovery activities for stormwater assets are ongoing with many locations requiring engineering input to ensure solutions meet expectations as well as fitting into the existing network without causing further issue. We have been successful with external funding applications for these activities and will continue to seek other funding opportunities as they become available to ensure our stormwater defences are fit for purpose across the district.

Where stormwater interlinks closely with flood protection, we will work with NRC to ensure responsibilities for stormwater management and river/coastal management are clear. Collaboration with the drainage districts, NRC and fellow Northland councils will be needed for maximum impact and effect.

The Catchment Management Plans are an essential tool in planning and managing stormwater within a catchment area. Along with the NIWA model and the NRC's hydrology river model, they form essential inputs into future planning and in particular, will define targets or overall infrastructure needs.

Significant effort had been put into working with the proposed Entity A (under the now repealed Water Services Reform) to establish an Asset Management Plan (AMP) that would guide the Kaipara through the next 30 years allowing for the increased level of service, growth, environmental impacts and compliance required and expected by our communities and regulatory bodies.

Some of the work around asset data will be brought into our asset management practices and activities from the AMP that support our recovery programme are included in this LTP period. Consideration will also be given to assets found in the work for Entity A that did not appear to belong to either a stormwater network, a roading network or parks and open spaces. These assets will be assigned to one of these three categories or flood protection to ensure management and maintenance programmes exist for all stormwater assets.

4.4 Flood Protection and Land Drainage

Council co-ordinates land drainage works in 31 land drainage schemes of various sizes. The largest is the Raupo Drainage District, where the Council provides administrative and technical support. To fund the costs of local infrastructure, a targeted rate applies for each drainage district.

Previous approaches to managing this infrastructure has largely been facilitative and reactive, and due to the fragmentation of the drainage districts, this can result in inconsistencies in assets, levels of service and governance.

While the Raupo area contains better asset data, due to condition assessments made and overall, more organised management, other districts have a mix of public and private assets that needs to be better understood.

It is the interplay of both public and private assets that will allow the levels of service to be achieved. Drains being able to remove floodwater within three tidal cycles is still a key level of service, however the height of stopbanks needs to be revisited following adverse weather events in 2023 and could vary in different locations.

The focus of the first three years of this strategy will be to re-assess the responsibilities of ownership, management and control that have been unchanged since amalgamation of Councils in 1989. Where NRC has responsibility for catchment management this has often been blurred with the drainage districts, the river systems and the harbours. Neither NRC or KDC can do this alone, and it is proposed to bring together a wider group of impacted parties, particularly from central government, mana whenua and our neighbouring councils who impact the flows and sedimentation of our waterways.

We will consider the drainage district boundaries – are they still appropriate or should we consider new boundaries that better meet current and future needs? Within those boundaries identifying and assessing the condition of the private and public assets is needed in order to understand the risks each drainage district faces.

And we will formalise action plans for each agreed district for maintenance and future improvements. Having forward plans for these districts will allow us to consider funding options from all avenues as they arise in a considered and collective way. This will achieve a greater outcome than individual, fragmented applications for funds for a generally known but unspecified activity.

The recovery works in progress will be completed – those with external funding must be complete by June 2025 and we will continue to seek external funding opportunities to build the defences needed across the district for flood protection.

4.3 Solid Waste

Kaipara District Council (Council) has a statutory responsibility to promote effective and efficient waste management and minimisation within the Kaipara District (Section 42, Waste Minimisation Act 2008 (WMA)). In order to do this, Council is required to adopt a Waste management and minimisation plan (WMMP) under Section 43 of the Act. The WMMP was adopted by Council in November 2023.

The WMMP is a guiding document which identifies Council's vision, goals, objectives, targets and methods for achieving effective and efficient waste management and minimisation. It also provides information on how Council intends to fund the activities of the WMMP over the next six years.

In addition to the legislative framework in which this WMMP has been developed, it has also been developed in the context of the New Zealand Waste Strategy 2023 (NZWS). The NZWS sets out the long-term policy priorities for waste management and minimisation and has a vision for 2050:

- By 2050, New Zealand is a low-emissions, low-waste circular economy.
- We cherish our inseparable connection with the natural environment and look after the planet's finite resources with care and responsibility.

Implementation parts of the WMMP is the focus over the period of this infrastructure strategy so that Kaipara is contributing to achieving the NZWS 2030 goals. The NZWS states that "By 2030, our enabling systems are working well, and behaviour is changing".

Due to the recovery focus of this LTP, the collection services, education programmes and transfer station operations will continue unchanged for these three years with the enhancements to be gained by the implementation of the WMMP programme to begin in the next LTP period.

Assessment and treatment of closed landfills will be planned for and completed, ensuring discharges are managed and the impacts of climate change minimised, as well as using the land resource to provide community facilities wherever that may be possible.

In the first three years of this LTP, consideration will also be given to both district and region-wide interest in and feasibility of a Waste to Energy solution.

4.4 Open Spaces and Facilities

The Kaipara district extends from coast to coast and captures a diversity of landscapes, environments and, consequently, a diversity of reserves and open spaces. These range from playing fields to local playgrounds, cemeteries, seaside picnic spaces, wilderness coastal areas, riparian strips, iconic rock formations and some larger bush reserves. Facilities for maritime use, camping, sports and recreation as well as walkways round out this vast category of assets and services the Council administers.

There are key issues to be addressed in natural hazards, climate resilience, the ebb and flow of community demographics and populations, along with community expectations for participation and economic development in order to deliver the required outcomes.

Connection and inclusion will be important factors in the planning of any facilities to be established or upgraded so that the immediate community as well as the broader district surrounds are able to utilise them. This includes facilities to be established by developers, community groups or sports clubs which must meet the standards that Council would apply to the project if it were implementing the project itself.

A key focus for this LTP period is to clear the backlog of vegetation management and maintenance after the disruption to maintenance schedules both from the damage done by the weather and the weather itself preventing crews from doing little more than the urgent repair works.

Vegetation management and maintenance schedules need to have enough flexibility to allow changes in direction or location for service levels to be maintained. Pest plants and dangerous vegetation will be pro-actively managed. Maintenance schedules and the requisite budgets will be updated for all new facilities – the required activities and budgets will be understood from the outset of the project to allow sufficient forward planning through the Annual Plan or Long-term Plan process for the funding of this.

Planning future open spaces will be informed by various information reports including Northland Aquatic Facilities Plan by Sport Northland and the Mangawhai Future Open Spaces and Facilities Needs Assessment from Xyst.

Council works in partnership with mana whenua throughout the district which can include co-governance of some premier reserves, and projects. Cultural Impact Assessments, Environmental Impact Assessment and Archaeological Assessment are important steps for Council and mana whenua in any project undertaking.

4.5 Key Assumptions

- This LTP is only for three years
- Roading and Footpaths key focus is on recovery
- Focus on making what we have good rather than only shiny new things
- Services for all water activities are included for the full three years of this LTP.