New Plymouth District Council

RESOURCE RECOVERY Asset Management Plan 2024 – 2034

Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

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Preamble/Foreword

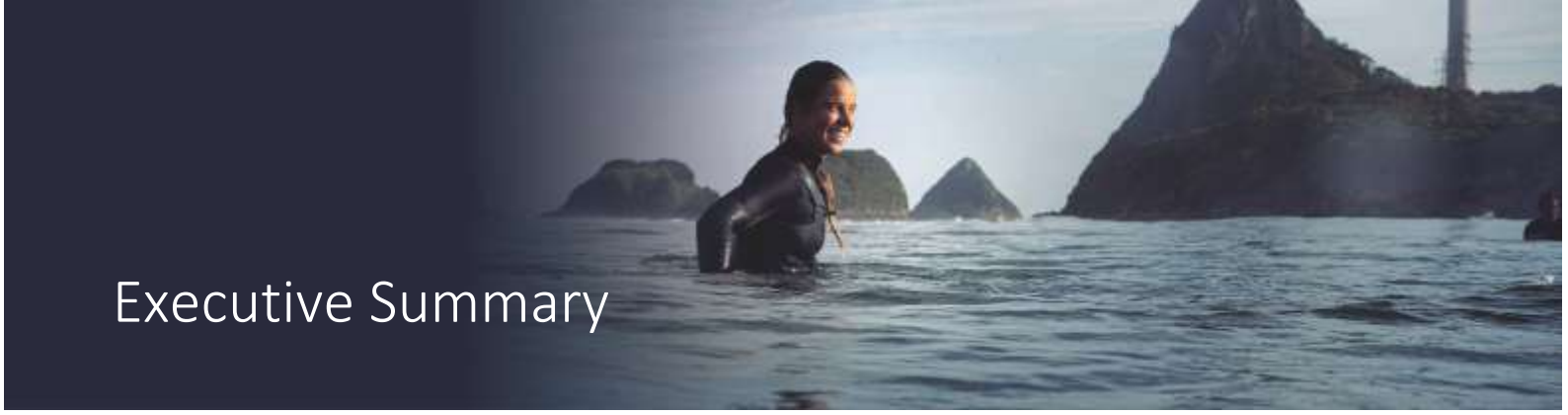
This 2024 Asset Management Plan has been prepared as part of the 2024-2034 Long-Term Plan (LTP) supporting information.

Asset management is considered by New Plymouth District Council to be an essential element of governance for local authorities and allows us as an organisation to take a planned approach towards our service delivery arrangements, levels of service, associated risks and financial forecasts. This Asset Management Plan (AMP) provides clarity to the organisation regarding the level of work required to implement comprehensive and quality lifecycle asset management strategies. This will ensure the delivery of targeted and essential infrastructure to the district and its residents.

The overall intent for this AMP is to provide a high-level document that supports the legislatively required 2024-2034 LTP and focuses on providing a desired level of service through the management of assets in the most cost-effective manner for present and future customers.

This AMP is the result of a substantial body of work over an 18-month timeframe, produced from the efforts of a cross-functional team of representatives including service managers, engineers, financial planners, senior managers, data technicians as well as asset management champions throughout the organisation.

This AMP has been produced concurrently with the 2024-2034 LTP, and all financial information is aligned with the approved budgets under the 2024-2034 LTP.



Executive Summary

This Asset Management Plan is a key supporting document for the Long-Term Plan, to assist in driving the achievement of Council's strategic vision, to describe the assets required to deliver this service, to outline the required Levels of Service we will need to deliver, the necessary actions to ensure we meet the expectations of our community, and the consequences of the decisions made by the elected Council.

1.1 Our Assets

Resource Recovery assets are distributed across the district with significant assets located in New Plymouth, Inglewood, Ōkato, Waitara and Tongapōrutu. A summary of the significant assets included in the AMP is below;

- Resource Recovery Facility (The Junction – Zero Waste Hub)
- Materials Recovery Facility (MRF) and Public Good area
- Reuse Shop
- New Plymouth Refuse Transfer Station
- The Sorting Depot
- Rural Refuse Transfer Stations (RTS)
- Landfills

1.2 Our Drivers

The standard of service provided by Council is defined by the agreed level of service. The agreed level of service for Resource Recovery is to;

- Deliver waste services and education programmes to actively encourage our communities to continually minimise waste levels throughout the district
- Enhance the environment through low waste and low emissions solutions
- Deliver waste management and minimisation services that customers are satisfied with
- Enhance the environment through low waste and low emissions solutions

Demand drivers are those factors which impact the extent to which an asset or service is required and used, or the type of service required. Demand drivers include factors such as;

- Population size, growth, and demographics
- Urban development including residential dwelling growth, location, makeup, and quantity
- Consumer requirements, preferences, expectations, and patterns of use
- Technology type, use, rate of change, level of interaction and customer expectations
- Legislative environment including central government reform
- District economy including changes in the dominant industry and increases in specific high impact industries such as agriculture
- Tourism industry, visitor numbers and financial changes
- Environmental factors such as those occurring through climate change

Some of the key drivers specifically related to Resource Recovery Include:

1. Responding to National changes - the waste sector is going through significant change and in conjunction with addressing climate change, we need to ensure our region is well set up for success. Wholescale changes to how we view waste will be required and a significant reduction in waste to landfill will need to be achieved. Success relies on key policy to drive this change and Te Rautaki Para - Waste Strategy provides a roadmap to a 2050 circular economy.
2. The impact of climate change - achieving a circular economy is also a key driver for emissions reduction and this cannot be done by Council alone. Progress will rely on everyone taking responsibility, including looking at how we can enable our community and collaborate locally and nationally. Key waste infrastructure will be increasingly at risk of climate change related events. Historic landfills (particularly those on the coast and close to riverbanks) are being assessed for risk and to have mitigation strategies developed.

1.3 Our Plan

There is adequate funding for all parts of the asset lifecycle for Resource Recovery. This means that Council has sufficient resources to sustain the existing infrastructure and services, ensuring that operations run smoothly, assets are well-maintained, and necessary replacement or renewals are carried out as needed including the maintenance and operations of future assets that are acquired. This financial allocation enables the continued functionality and longevity of resource recovery assets.

While current data indicates there is adequate funding, one of the actions in the improvement plan is to complete further data collection to ensure a complete and accurate asset register which may impact future funding needs.

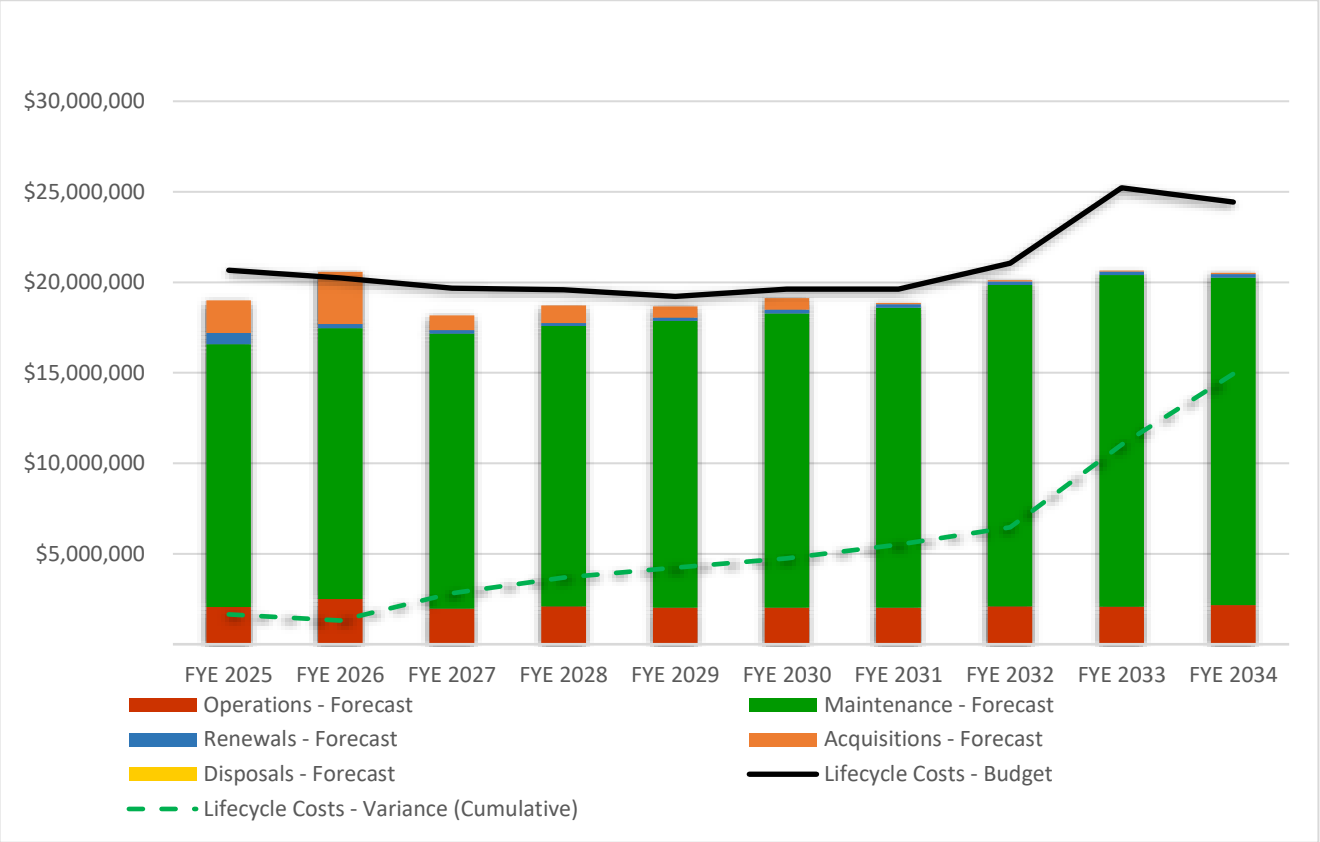
1.4 The Cost

The below lifecycle summary shows there is adequate budget for the lifecycle of resource recovery assets.

The first two years have greater acquisition costs which are associated with one-off projects including the Colson Road Landfill Closure works, Historic Landfill Erosion Protection, and the Organic Wate Processing Facility.

In Years 9 & 10, there is a significant uptick in renewal costs in the region of $6M; this is primarily associated with the Armco culvert renewal project at the New Plymouth Resource Recovery facility.

Figure 1.4.1 Lifecycle Costs Summary



All values in graph are adjusted for inflation

1.5 The Risks

The greatest risks to Resource Recovery include;

- Inadequate transfer stations - potential to no longer meet Waste Plan objectives, and likely to require upgrades to meet future demand from population growth as well as diversion of waste to new markets
- Contamination management – contamination influences health and safety, quality, and efficiency, as well as increased costs for operating the MRF, and potential damage to property, plant, and equipment
- Limited information on asset data – unable to assess the condition of our assets, and plan for future renewals and maintenance
- Buildings not fit for purpose – the temporary Junction building structure may no longer be fit for purpose
- Contractors assets – contractors failing to maintain assets dedicated to Council services resulting in impacts to service delivery
- Inability to comply with resource consents – if upgrades to the Colson Road landfill leachate management system are not made there is an increased risk of unauthorised discharges of leachate into the Pūremu Stream.

1.6 Future Change

The areas for improvement that will help drive greater asset management principles include:

- Improved data collection and condition assessments
- Monitoring of historic landfills for progression of coastal or fluvial erosion
- Develop a process for lifecycle management costings
- Develop a process for asset criticality ratings
- Development an asset hierarchy

Introduction

Background

2.1.1 Organisation Context

New Plymouth District Council (NPDC or Council) serves the New Plymouth District (the district) situated in North Taranaki, in the North Island of New Zealand. Dominated by the majestic Taranaki Maunga, the Taranaki region has historically been built upon the dual economic pillars of dairy and petrochemical industry but has recently pivoted away from this dual reliance towards a wider economic foundation encompassing other industries to build regional economic resilience. While New Plymouth is the only city in the district, it encompasses several small towns including the communities of Waitara, Inglewood, Urenui and Ōakura. The district is currently home to a population of approximately 89,000 people, a figure which is forecasted to reach around 93,500 by 2029.

Figure 2.1.1 Taranaki local authority boundaries (image courtesy of TRC)

Providing adequate delivery of services and meeting the expectations and demands of a growing population will bring several challenges and opportunities which the organisation will need to plan for, fund, operate and maintain to provide the appropriate levels of service over the planning period.

The current operating environment of NPDC is being significantly impacted by the ongoing effects of the global COVID pandemic, the international instability caused by the war in Ukraine and the political reforms initiated by both the previous and the current central government. These challenges have created increased financial pressure to all Council departments and to the majority of Council's across New Zealand. More detail about these issues is covered in Section 4 – Demand.

2.1.2 Service Context

The Resource Recovery Team within Council are responsible for developing and implementing the district's Waste Plan, which is required to be reviewed every six years and consulted on with the wider community.

The Waste Plan sets the Councils vision, goals and objectives which includes behaviour change programmes and initiatives, drives the development of regulatory frameworks and new services, and sets out the blueprint for infrastructure development to encourage the goal of Zero Waste 2040.

The Resource Recovery Team own several assets around the district to provide essential waste management services, but also encourage the diversion of waste from landfill and promote reuse of items. Services provided include;

- kerbside collection
- rural transfer station (RTS) operations
- commercial and Industrial waste recovery (The Sorting Depot)
- waste diversion and reuse (The Junction Reuse Shop)
- recycling processing (Materials Recovery Facility)
- education and behaviour change programmes
- support for businesses, schools, and community groups to reduce waste

One activity previously provided but now in the process of being closed is the Colson Road regional landfill, with capping works expected to be complete in the 2024/2025 financial year.

The Resource Recovery team have detailed information about Waste Management and Minimisation services and facilities, and about services operated on their behalf. As such, asset ownership and responsibilities fall into the following categories:

- Council owned assets which are maintained by the Council (i.e. Rural Refuse Transfer Stations, Landfills, and Reuse Shop at The Junction)
- Council owned assets which are leased to contractors, and maintained by the contractor (i.e. The New Plymouth Transfer Station and Materials Recovery Facility at The Junction – Zero Waste Hub)
- Contractor owned assets which are maintained by the contractor (i.e. The Sorting Depot, and plant and processing equipment)

A variety of waste buildings (i.e. Waitara Transfer Station, The Junction, and the Colson Road landfill kiosk and workshop) are managed by NPDC's Property team on behalf of the Resource Recovery team. Details for these building assets are included in the Property AMP.

2.1.3 Asset Summary

Information for Resource Recovery assets is provided below. It has been identified that there is not a high level of detail about fixed assets in Resource Recovery, and there is an improvement action for improved data capture outlined in the Improvement Plan.

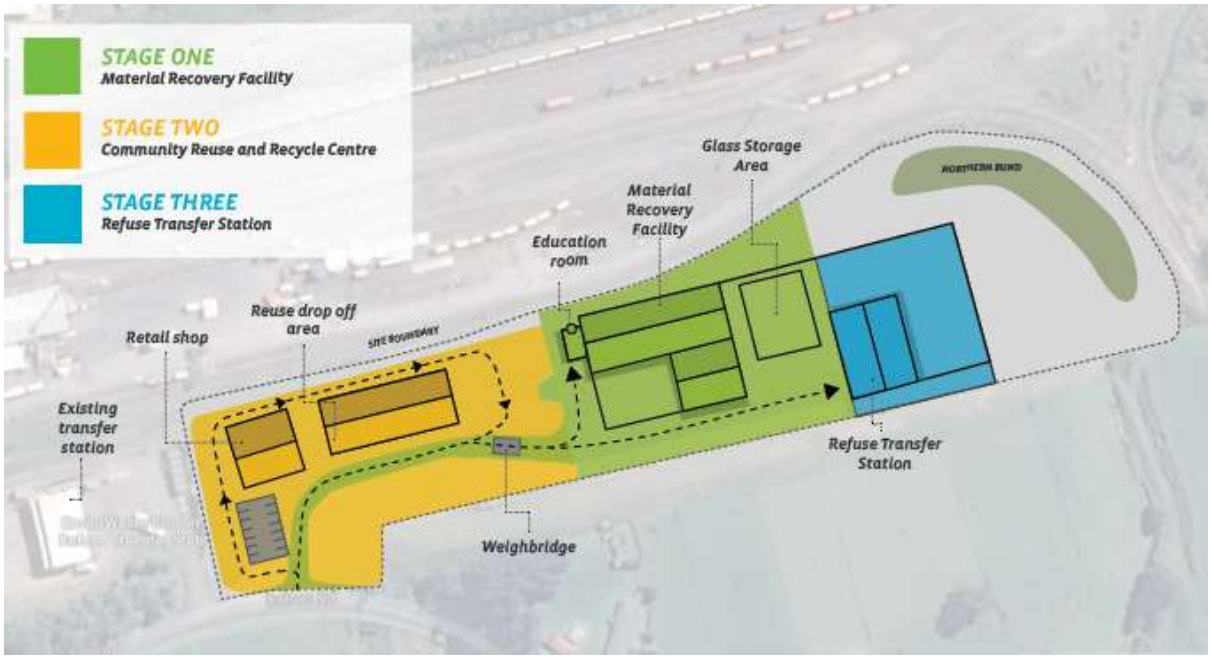
Resource Recovery Facility (The Junction – Zero Waste Hub)

The Junction is the Council's Zero Waste Hub and is located on Colson Road in New Plymouth. It is set up to operate as part of a Resource Recovery Facility (RRF) under NPDC's design, build and operate

contract (Resource Recovery Facility Contract) with EnviroWaste Services Ltd (EnviroWaste) (see Section 5: Lifecycle). The Junction is comprised of a Materials Recovery Facility (MRF), and Re-use Shop/education space. Also, on the RRF site is the New Plymouth Refuse Transfer Station (RTS).

The RRF has been developed over the years with the creation of the MRF and education space (2015), the construction of a temporary Re-use Shop (The Junction) and the construction of the New RTS in 2023. The Sorting Depot (a commercial and industrial waste sorting facility) has been constructed on the site of the old transfer station and was opened on 01 July 2023. The relocation of the temporary Re-use Shop was completed in August 2023 and construction of the permanent Re-use Shop is planned for completion in 2024/2025.

Figure 2.1.3: Resource Recovery Facility (The Junction - Zero Waste Hub) layout



Future potential stages include an organics processing facility. Further information for each of the facilities within the RRF is outlined below:

Materials Recovery Facility and Public Good area

The Materials Recovery Facility (MRF) processes recycling collected by the region's kerbside, RTS services and from commercial waste operators and businesses. Recyclables are sorted and baled here – specifically card, paper, aluminium and steel cans, and plastic containers (grades one, two and five). Glass is also consolidated onsite in concrete bunkers behind the MRF.

The MRF building houses the processing area, office, staff facilities and an education room with a viewing window to the processing area of the facility. Sustainable Taranaki is contracted by the Council to provide education services, including MRF tours and workshops, based in the education room.

In April 2022 Enviro NZ installed a new plastics optical sorter and subsequently in April 2023 a fibre optical sorter was installed. The sorters are an automated system that identifies material and sorts it

into categories, increasing processing rates and decreasing process losses. In February 2023 solar panels were installed onto the roof of the MRF.

The Public Good area is located between the Reuse Shop and the MRF and provides a free drop off of recyclable materials for the community, this area is managed as part of the MRF operations contract with Waste Management NZ.

Reuse Shop

The Reuse Shop accepts second-hand items from the community and businesses for resale and/or upcycling. Reusable items are unloaded in the drop-off area for processing and either transferred directly to the shop to be sold or are upcycled and sold. Standard recyclable products are also accepted at no charge in the drop-off area; glass (bottles and jars), paper, cardboard, plastic containers (grades one, two and five) and aluminium and steel cans.

The Reuse Shop is currently located within a temporary building. The temporary building has been relocated adjacent to the car park area while the permanent building is being constructed. There is also a car park, paths, and staff facilities in a rented portacom building beside the temporary building, and a zero-waste sculpture.

Work is currently underway to construct the new permanent building with a completion date in 2025.

New Plymouth Refuse Transfer Station

The New Plymouth RTS caters for the population of New Plymouth, Bell Block and Oākura. Kerbside and rural RTS landfill waste, alongside public and commercial landfill waste from the RTS is consolidated here and transported to Bonny Glen landfill near Marton now that the Colson Road landfill has closed and no longer accepts waste.

Located on Council-owned land to the east of the MRF, the new RTS opened in February 2023. Council leases this land to Waste Management NZ to enable their operations.

Further information is provided below;

- Residual waste is accepted at advertised gate charges (set by the Operator)
- Compostable greenwaste is accepted at a reduced charge (set by the Operator)
- Residential household hazardous waste is accepted at no charge for the first 10kg/10L. Commercial quantities of hazardous waste or quantities of residential hazardous waste above 10kg/10L incur charges (set by the Operator).

The fixed assets include the transfer station building, a food waste consolidation point (including load-out ramp), two weighbridges and a kiosk.

The Sorting Depot

The Sorting Depot was constructed on the site of the former New Plymouth Transfer Station and opened to account customers only in July 2023. The facility initially accepted commercial and industrial loads of waste from waste service providers and then expanded to accept waste from

construction companies and other commercial organisations. These loads are emptied on to a flat pad for sorting to reduce waste from the construction and demolition sector from going to landfill.

Opening hours and gate rates for The Sorting Depot are set by NPDC and the site is operated through a contract with Metallic Sweepings (2002) Ltd.

Current waste streams identified for diversion are; metals (both ferrous and non-ferrous), polystyrene, useable lengths and sizes of timber and plasterboard, PVC piping, cardboard, glass, plastics 1, 2 and 5, concrete, future opportunities for diversion are timber (unusable lengths of treated and untreated), flat glass, soft plastics, fibreglass, insulation and plasterboard (unusable off cuts) and any other opportunities for diversion that are developed/created in the future.

Fixed assets at The Sorting Depot include the kiosk, weighbridge, hazardous goods shed, storage shed, canopy and sorting floor, as well as trade waste collection, sealed infrastructure and sewage pump station and a stormwater management and filtration system. There are also concrete interlocking blocks that form concrete storage bays. Bin infrastructure includes two 30m^3 hook bins and six 15m^3 hook bins, which were purchased brand-new in May 2023.

Rural Refuse Transfer Stations (RTS)

There are four rural RTSs in the district, currently operated by Waste Management NZ under the Waste Services for Taranaki District Councils Contract, as follows;

- Inglewood (King Road)
- Ōkato (Hampton Road)
- Waitara (Norman Street)
- Tongapōrutu (Hutiwai Road)

The Ōkato, Inglewood and Waitara RTSs accept landfill waste, co-mingled recyclables (plastics 1, 2 and 5, paper, tin, and aluminium), cardboard, glass (bottles and jars), greenwaste, whiteware, scrap Steel and tyres.

The Tongapōrutu RTS accepts the above streams except for scrap steel, whiteware and tyres. Glass is accepted down in the gravel area on the corner of Clifton Road and State Highway 3. There is also a Jack Trash (pay-as-you-go) coin-operated landfill disposal bin in this area that accepts bags of residential waste.

Landfill, greenwaste, tyres and whiteware are subject to advertised gate rates (charges set by the Council). Recyclable products are free of charge to drop off. Hazardous wastes, commercial wastes, large waste quantities (over 1 cubic metre) and wastes requiring special treatment are prohibited from being disposed of at the rural RTSs.

All waste other than scrap steel and whiteware is then transported to the New Plymouth Transfer Station, where it is consolidated and transported to relevant disposal points. Landfill is transported to the Bonny Glen landfill in Marton, greenwaste to Plateau Compost in Kawerau, recyclables to various end markets in the North Island. The contractor collects and on-sells whiteware and steel.

Small amounts of greenwaste accepted at the Tongapōrutu rural RTS is spread onsite to compost naturally.

Opening days and times for the rural RTSs are advertised on the Council's website. Further information on the rural RTSs is below.

Inglewood Rural Refuse Transfer Station

The Inglewood rural RTS caters to the residents of Inglewood and other surrounding rural communities such as Norfolk, Tarata, Tariki and Egmont Village. The site receives on average 320 tonnes of waste each year.

The Inglewood rural RTS is situated on a closed landfill site on King Road, which is consented to accept municipal waste as a contingency site for local waste disposal. There is limited infrastructure at this site, with a small shed, retaining wall and a concrete pad.

The site has bins for landfill and greenwaste as well as a cage for cardboard and a pod for co-mingled recyclables and glass.

A master plan for the Inglewood rural RTS is being developed.

Ōkato Rural Refuse Transfer Station

The Ōkato rural RTS caters to the residents in and surrounding the Ōkato township, which can also include residents from the South Taranaki district due to the proximity of the district boundary. The site receives approximately 450 tonnes of waste (other than tyres) each year.

The Ōkato RTS is situated on a closed landfill on Hampton Road, with a consent to take municipal Waste as a contingency site for local waste disposal.

In 2021-2022 a master plan for the Ōkato RTS was completed, with the view to create a more user-friendly facility with opportunity to increase Waste diversion.

Waitara Rural Refuse Transfer Station

This is a purpose-built facility to service the population of Waitara, Lepperton, Tikorangi, Urenui and Onaero. Customers empty their landfill waste into a pit with an overhead canopy which is periodically cleaned up by a loader into a large skipbin which the contactor transports to the New Plymouth RTS. The kerbside collection contractor collects and transports standard recyclable products to the MRF.

The Waitara rural RTS also offers a separate Ag-chemical container collection as part of a nationwide collection service.

The Waitara rural RTS contains a kiosk for the site operator and a large, open metal roof structure to shelter the waste materials disposed of at the site.

Tongapōrutu Rural Refuse Transfer Station

The Tongapōrutu rural RTS is located across the road from a closed landfill on the edge of the Tongapōrutu River. The Tongapōrutu rural RTS services the area of the district north of Mount Messenger and customers can offload landfill waste into a skip bin for three hours a week every

Sunday. Due to the geographic location and the cost of transport, recycling is limited to glass and mixed recyclables are being accepted on a trial basis. Greenwaste is accepted and due to the small volumes is left to decompose naturally on site.

As there is no weekly kerbside collection service in the Tongapōrutu village, a coin operated 'Jack Trash' unit is available. The unit is sited on reserve land at the southern end of State Highway 3/Tongapōrutu River bridge. A glass recycling pod is available next to this unit.

This site contains a canopy above the landfill disposal area and small kiosk. Given the small surrounding population, Tongapōrutu rural RTS receives relatively low volumes of waste and low numbers of visitors.

Due to low patronage and significant issues with illegal dumping, Council is currently working to close the Tongaporutu Transfer Station in favour of a 24/7 pay as you go refuse drop-off at the Clifton Road/SH3 intersection.

Contingency Landfills

The Council owns three operational landfills in the district, each with consent for waste disposal:

- Colson Road landfill – Stage 3 (New Plymouth)
- Inglewood landfill (King Road)
- Ōkato landfill (Hampton Road)

The Colson Road landfill has an existing consent to dispose of municipal waste; however, the landfill has not received waste since the end of October 2020 and consent renewals for the site are underway to formally close the landfill. The Inglewood landfill and Ōkato landfill are closed but are consented as cleanfill sites with a provision for contingency disposal in the event of an emergency.

Colson Road Landfill

Over time the Colson Road landfill has been expanded in stages (Stages 1, 2 and 3). The old Stage 1 and Stage 2 landfills are on the western side of the landfill. In addition to some forestry, these have been capped and grassed. Further information for the Stage 1 and Stage 2 landfills is provided in Section 2.1.4 below.

The most recently filled area (Stage 3) was opened in May 2002, on a greenfield area of the property and defined as a 'Class A' landfill. With a land use designation change in 2004, the landfill became a regional facility accepting waste from the entire region. In August 2019 the landfill closed to the acceptance of general waste but remained open for special waste disposal until October 2020.

The Colson Road site has eight resource consents from Taranaki Regional Council (TRC), which include a total of 82 conditions. It also has a NPDC land-use designation with 34 conditions governing planning aspects such as landscaping, access, hours of operation, allowable waste types, open area, and landfill administration. Leachate from the site is pumped to the New Plymouth Wastewater Treatment Plant (NPWWTP) where it is treated as trade waste alongside the district's wastewater.

In May 2020, TRC issued NPDC with an abatement notice regarding groundwater contaminant levels greater than the natural variation. Since this point, NPDC have submitted an early consent renewal application to address this issue, as well as apply to formally close the landfilling operations, and apply for a consent to operate a Class 5 cleanfill to fill-in the borrow area, where material has been taken from to complete the capping works on Stages 2 and Stage 3.

The Stage 3 area of the Colson Road site is screened on the northern and eastern side by forestry and litter fencing. The southern side is the borrow area. Stage 3 had available airspace of 115,000m^3 or a design capacity for 800,000 tonnes of refuse. In October 2020 when the landfill closed for disposal of waste approximately 56,000m^3 of airspace remained.

Final capping of Stage 3 is underway. During 2018 a new landfill gas collection and flare system was constructed to improve odour management. An aftercare plan has been prepared outlining the ongoing maintenance and work required to be undertaken to ensure that the landfill will continue to function in a safe and environmentally sound way following closure. There will be a minimum 30-year aftercare period as leachate and landfill gas will continue to be generated and treated following closure.

Assets at the site include leachate collection pipes and manholes, High Density Polyethylene (HDPE) liners to separate waste from the surrounding land and a landfill gas collection and flare facility. They also include significant earthworks to contour the site and form the landfill voids, silt retention ponds and a leachate pump station and rising main connected to the wastewater reticulation system. There are also utility buildings, roads, weighbridge and a deodoriser reticulation and pump.

As a response to ongoing effects from climate change, as well as reduce Council's impact on climate change, work has been identified to improve landfill gas capture from Stage 3, as well as improvements to the leachate overflow pond capacity.

Ōkato Landfill

The Ōkato landfill is a municipal landfill on Hampton Road, which closed in 2013 when the resource consent expired. The site is permitted to be used as a contingency landfill should access to Bonny Glen landfill and/or Hampton Downs landfill be restricted (under three resource consents which expire in 2031). Infrastructure on site is associated with the RTS and detailed previously. Assets include a metaled access track and a bridge to gain access to the RTS operational area.

Inglewood Landfill

Resource consent for the Inglewood landfill on lower King Road changed in 2007, allowing the facility to dispose of cleanfill and to act as a contingency municipal landfill should access to Bonny Glen or Hampton Downs landfill be restricted. It was used in this capacity for three months in mid-2005 when the Colson Road landfill was unavailable following a major incident. The resource consents expire in 2020 (an application to renew the consent has been submitted and is being assessed by TRC). Now utilised as a RTS, infrastructure associated with this site is covered in that section.

Closed Landfills

Closed landfills are recorded as part of the Waste Management and Minimisation Service's assets because they require ongoing and regular monitoring and maintenance. The Council maintains the following closed landfills;

- Okoki Road landfill
- Waitara landfills (Manukorihi Road and Battiscombe Terrace)
- Oākura landfill (McKeller Street)
- Marfell Park landfill (Cook Street)
- Old Taranaki County Council (TCC) landfill (Bewley Road)
- Tongapōrutu landfill (Hutiwai Road)
- Stage 1 and Stage 2 of the Colson Road landfill

Where applicable Council holds TRC resource consents for these closed landfills, which include a variety of conditions. Six resource consents recognise continued leachate discharge and two allow for discharge emissions to air.

Further information is for the closed landfills is provided below:

Okoki Road Landfill

Historically, the Okoki Road landfill was a trench filled with residual waste and periodically burnt, with the subsequent ash bulldozed over a bank. It was closed in 1994, and rehabilitation and landscaping work occurred. The leachate levels have now reduced to the point where the resource consent from TRC is no longer required. The site has been considered for return to its original owners, however multiple ownership and the ongoing liability as a contaminated site makes the potential transfer complicated and unlikely to be resolved in the near future.

Oākura Landfill

Closed in 1985, the Oākura landfill was capped and levelled and is now a recreational reserve. The north-west end of the site drops into the Whākao Stream, and it is used by the local pony club. The quality of the leachate discharge from this site now meets the permitted activity requirements in TRC's Regional Freshwater Plan and the site no longer needs TRC consent or monitoring.

Waitara Landfills

The Waitara landfill was situated on a 1.7ha parcel of land at the bottom of Manukorihi Road on the eastern side of the Waitara River. It was closed in 1993 and was planted out with over 2,000 mixed variety plants. Due to the low level of leachate contaminants, TRC no longer monitor the site.

A second historical landfill site in Waitara, off Battiscombe Terrace, is currently being eroded and an investigation is underway into what remedial works may be required.

Marfell Park Landfill

Closed in 1985, the Marfell Park landfill site was originally the New Plymouth rubbish tip. The area was capped and is now a recreation reserve (Marfell Park) with a playground on a lower level at the

northern end. Leachate from the old landfill is captured by a sewer system, but minor amounts of leachate may be discharged via stormwater piped to the Mangaotuku Stream near Grenville Street.

Further capping on the middle platform was undertaken in 2011 to enable an extension of the BMX facility but this facility has now been removed entirely from the recreation reserve.

A management plan for the site has been developed to ensure the closed landfill continues to be managed so that the cap remains in good condition.

Old Taranaki County Council Landfill

The Taranaki County Council (TCC) landfill (on historical Bewley Road, off Devon Road) has been quarried, land-filled and developed as the Waiwhakaiho Valley shopping and car parking area. TRC monitors the site annually for leachate discharges into the Waiwhakaiho River via three ground monitoring bores. NPDC are responsible for providing and maintaining these bores. To date, TRC monitoring has found no significant leachate effects or groundwater contamination.

In 2014, TRC reported elevated levels of ammonia discharging to the Waiwhakaiho River. A subsequent investigation found the source of the contamination to be outside the footprint of the old landfill.

Tongapōrutu Landfill

The Tongapōrutu landfill is on Hutiwai Road, across the road from the existing RTS. The landfill was situated on the edge of the Tongapōrutu River. The site was closed because of its proximity to the Tongapōrutu River.

Colson Road Landfill

In 2004, the Environmental Commissioner deemed Stages 1 and 2 of the Colson Road landfill closed when the resource consent to operate the Colson Road Stage 3 area was granted. Stage 1 and Stage 2 landfill areas are on the same property as Stage 3; however, they are separated by a sealed road constructed on virgin soil. Discharges from the closed sites are added to leachate from the Stage 3 area and pumped to the NPWWTP for treatment.

Regional Central Landfill

The Regional Central landfill (RCL) was a proposed landfill in the South Taranaki district for the disposal of municipal waste. It is managed under a Joint Committee Agreement between NPDC, Stratford District Council (SDC) and South Taranaki District Council (STDC). The landfill was planned to become the regional landfill once Colson Road landfill closed, however in 2018 the three councils put the development of this landfill on hold and entered into a contract to dispose of waste at an out of region landfill for 35 years.

NPDC is the Administering Authority for the construction and operation of the landfill, and some enabling construction works were completed on the site south of Eltham (Rotokare Road) before the project was placed on hold. The site has a completed access road and some earthworks in relation to stormwater control and the Stage 1 landfill area which have been remediated and returned to farming while the landfill is on hold. There are no other assets on the site.

In 2022, the decision was made to no longer proceed with the construction and operation of the RCL. South Taranaki District Council are to remain the asset owners for this site and NPDC remain the Administering Authority, however a decision on the future of the Joint Committee is yet to be decided.

Kerbside Collection Receptacles

The provision of kerbside collections is carried out under the Waste Services for Taranaki District Councils Contract by Waste Management NZ alongside rural transfer stations operations. The kerbside service includes the collections of;

- mixed recyclables (plastics 1, 2 and 5, cardboard, paper, aluminium, and tin cans)
- glass (bottles and jars)
- food scraps
- landfill waste

NPDC own approximately 30,750 of each of the following types of receptacles:

- 240L MGB wheelie bin for mixed recyclables (dark green body/yellow lid)
- 140L MGB wheelie bin for landfill waste (dark green body/red lid)
- 60L crate for glass recycling (blue)
- 23L mini-bin for food scraps (dark green body/lime green lid)

The four bins are provided to each residential property located within the collection area. Glass crates and recycling bins are also provided to schools and early childhood education centres at no charge, and provision of these are based on enrolment numbers.

Asset valuations are undertaken every three years. As of 30 June 2022, the certified fair value of Resource Recovery assets was approximately $4.6M.

Asset Management Planning

2.2.1 Goals and Objectives

AMPs are developed by NPDC to provide guidance on how to manage infrastructure and property assets to meet defined levels of service. They are used as supporting documents for the Infrastructure Strategy and Long-term Plan (LTP), which are required under the Local Government Act 2002 (LGA), clauses 101B and 93 respectively.

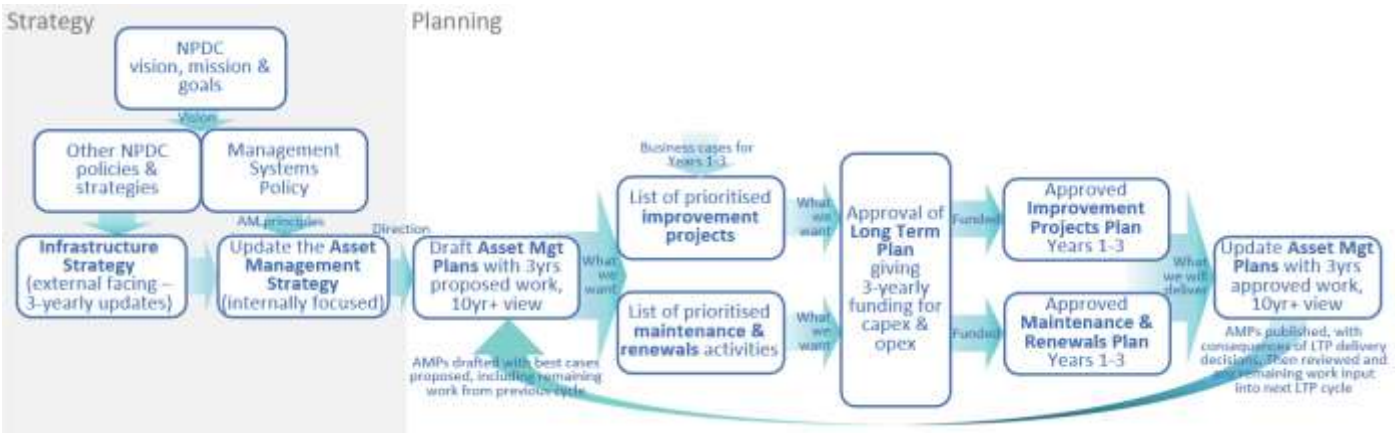
This AMP identifies and addresses the following key elements;

- defining the levels of service and monitoring overall performance
- identifying and managing the impacts of changing demand
- assessing the complete lifecycle requirements for the asset portfolio and developing cost-effective strategies for management of those assets
- identifying, assessing, and treating risks and improving asset resilience
- outlining the trade-off between service and risk
- connecting the forecast costs to the financial LTP, and
- identifying and acting on opportunities for improvement

2.2.2 Process

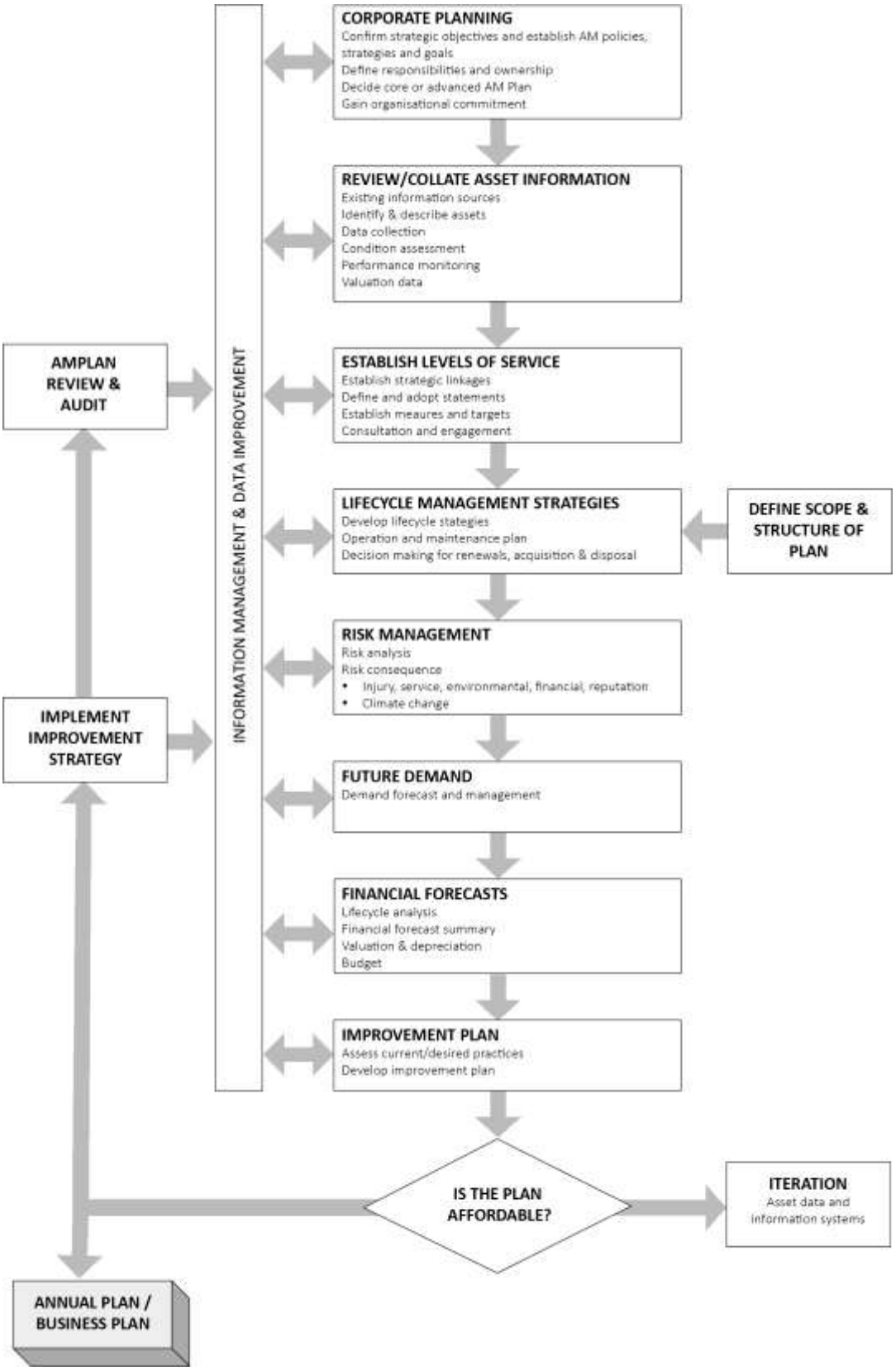
The development of AMPs is part of an overall governance process that is outlined in the Asset Management Strategy. A summary of this process is given in Figure 2.2.2.1

Figure 2.2.2.1: Asset management governance process



NPDC's AMPs are prepared following the International Infrastructure Management Manual (IIMM) Road Map as shown in figure 2.2.2.2.

Figure 2.2.2.2: IIMM Asset management planning road map



2.2.3 Key Stakeholders

The key stakeholders involved in the preparation and implementation of this AMP are outlined in table 2.2.3.

Table 2.2.3: Key stakeholders

Stakeholder	Role in Asset Management Plan
New Plymouth Council Elected Members & Mayor	• Represent the needs of community • Define the long-term vision, mission, and goals for the district • Ensure that services remain financially sound and sustainable • Hold Council staff to account for delivery of services at the desired service level
NPDC Chief Executive	• Endorsement of AMPs, and actions contained within • Drive engagement at organisation's top-level for alignment of AM planning with LTP and other organisational-wide strategic plans, strategies, and policies • Sets standards, timeframes and expectations for AM plans and strategic direction of organisation
General Manager Operational Excellence	• Delivery of Council's Infrastructure Strategy and key supporting documents • Sponsor the development of the asset management plans including authorising appropriate resources • Set high level priorities and timeframes for plan preparation • Endorse, support, and provide resources for the implementation of actions resulting from the plan • Support improvement of asset management practices, including supporting implementation of relevant new policies, processes, and procedures
Resource Recovery Lead	• Provide ownership and accountability for provision of Resource Recovery service to the district • Set high-level service priorities and timeframes for achievement • Prioritise and resource implementation of improvement programme • Advocate for the service/asset to Elected Members • Ensure budget is sufficient for maintenance and repairs through advocacy in Long-Term Plan planning
Operational team	• Record and create an asset maintenance plan for all assets • Ensure asset maintenance is carried out

	• Carry out inspections of the facilities • Capture new assets in Council systems
Project managers	• Deliver capital project works to meet operational needs and fulfill the change requirements defined in the relevant business case • Lead significant acquisition, renewal and disposal works including planning, procurement, and commissioning of new assets
External parties – regulators	• Set requirements in the form of regulations and legislation
External parties - community	• Provide feedback to Council through the various channels: service requests, surveys, workshops, consultations, etc
NPDC Contractors	• Undertake maintenance of assets as required in the contract, which includes: The Junction, MRF, NP Transfer Station, Colson Road landfill, Sorting Depot, Regional Waste Services • Raise issues relating to assets with Resource Recovery Operational team
NPDC staff	• Carry out Service Level Agreements with regards to asset management (e.g., Property, Waters)

Levels of Service

Under the LGA (2002), councils are required to "meet the current and future needs of communities for good quality local infrastructure, local public services and performance of regulatory functions in a way that is most cost effective". This requirement translates into a level of service (LoS) – a statement by Council that clearly identifies what it intends to deliver in terms of providing local infrastructure, public services, and regulatory functions.

This AMP section outlines the major contributors for defining levels of service statements, the LoS targets that Council aims to meet, how those service targets are measured, and the consequences to our communities where levels of service are not achieved. By defining LoS statements and linked performance measures Council can measure performance towards achieving strategic goals and outcomes, as well as identify where performance results achieved differ from performance targets – these are LoS gaps. Where available budget plays a key role in LoS underperformance, the consequences to the organisation and the communities needs to be stated.

3.1 Customer Research

Understanding the requirements of our partners and stakeholders is critical to delivering the service that best meets their needs. Every six years Council is required to review and develop a Waste Plan, as required under the Waste Management and Minimisation Act (2008). Upon developing the Waste Plan, Council is required to undertake a Special Consultative Procedure (SCP), outlined in the LGA 2002, and is the highest form of consultation a Council is required to undertake. The SCP was undertaken in August and September 2023 with hearings held in October 2023. A total of 88 submissions on the WMMP were received from individuals and organisations. The summary of consultation is found in the Waste Management and Minimisation Plan 2023 submission summary report (ECM# 9088795).

Based on the feedback received, there is strong support for the guiding principles, vision, and goals outlined in the Plan. The proposed actions in the Plan were generally supported with most of the ten areas in the consultation survey supported by more than 70% of submitters. Most feedback and suggestions from submitters were already included in the action plan. The actions that were identified through the special consultative process as most important to be prioritised are (in no order);

- expanding recovery options through transfer stations and resource recovery network,
- establishment of a regional organic processing facility to allow for local processing of materials,
- potential to introduce a green waste collection as part of the kerbside service,
- establishing a community composting network,
- working with the rural community to provide more support and accessible services,
- expanding behaviour change programmes across all focus areas, and

- investigating ways to tackle illegal dumping.

3.1.1 Community Survey

An independently-managed community survey is undertaken annually by Research First to understand customer satisfaction across all of Council's activities. Feedback from the 2023 New Plymouth Community Survey has been summarised in Table 3.1.1 below.

Table 3.1.1 Community survey feedback

Performance Measure	Satisfaction Level			
	Not Very Satisfied	Fairly Satisfied	Very Satisfied	Don't Know
Overall satisfaction with Kerbside Rubbish and Recycling collection provided by Council.	10%	34%	50%	5%
Satisfaction with kerbside and recycling collection provided to households	9%	35%	55%	1%

Suggestions from respondents on areas to improve the Resource Recovery service were focused on kerbside collections, including bigger/more bins, emptying bins on time, emptying bins more regularly, and expansion of the kerbside collection area.

3.1.2 Other feedback

Other feedback received through early 2024-2034 LTP consultation found that residents are concerned about wild weather events and want the council to provide infrastructure and services that can withstand severe weather events, which aligns with the WMMP to focus on managing waste in a disaster. Residents also expressed concern regarding keeping rates low and affordable and for Council to focus on basic infrastructure and services, such as kerbside collections and transfer stations.

3.1.3 Critical customers engagement

Some customers require a higher level of service than the average person. The needs of these critical customers are known and monitored, with regular reviews to ensure information is current. These critical customers are summarised in Table 3.1.3.

Table 3.1.3: Critical customer summary

Critical customer type	Customer needs	How we engage	Customer feedback
Residents who are physically unable to take their bins to the kerbside for collection	Unable to manage their waste disposal	We promote our assisted collection service to organisations that engage or provide services to residents who may benefit from the service	There are currently 24 residents receiving this service.

3.2 Strategic and Corporate Goals

3.2.1 NPDC's Vision, Mission, and Goals

This AMP is prepared under the direction of the New Plymouth District Council's Vision, Mission, and Goals, as shown in Figure 3.2.1. This strategic framework is available on NPDC's website at the following weblink: https://www.npdc.govt.nz/planning-our-future/our-vision/.

Figure 3.2.1: NPDCs Vision, Mission and Goals

How these goals are aligned to the Asset Management Strategy focus areas and how they will be addressed by this AMP is summarised in Table 3.2.1.

Table 3.2.1: Organisational goals, asset management strategy focus-areas and how these are addressed in this Plan.

Goal	Focus Area/ Objective	How Goal and Objectives are addressed
Trusted **Building credibility**	*Improve our asset data* – We will improve the quality of our asset data by identifying and addressing gaps and improving data collection.	The delivery of the plan aims to grow the community's trust, particularly through embedding the te ao Māori aligned guiding principles across the waste services, being a leader in the sector and being transparent in what we do for the community.
Thriving Communities and Culture **Equitable & inclusive**	*Improve our processes* – We will identify and implement process improvements to improve overall efficiency.	To contribute to a thriving community, we work in partnership with community organisations to deliver contracts at The Junction Zero Waste Hub and empower the community to take responsibility for their waste through Zero Waste Grants, and delivering programmes that help the community reduce waste and transition to a circular economy approach.
Environmental Excellence **Efficient & resilient**	*Reduce our emissions* – We will address how we can reduce emissions to meet the Emissions Reduction Plan target of zero emissions by 2050.	Encouraging waste minimisation and more circular waste practices supports environmental excellence, protecting the environment for current and future generations. Our kerbside collection services enable people to divert waste easily and conveniently from landfill. We also deliver services to recover valuable resources from waste disposed to landfill, for reuse or recycling without significant impact on the environment and public health, all of which contributes to the social and environmental well-being of our community. This includes the 2020 closure of the Colson Road landfill, which is currently being capped to an environmentally acceptable standard and managed alongside other closed landfills in the district.
Prosperity **High performing & equitable economy**	*Improve our planning* – We will empower our leaders to focus their effort on medium- and long-term planning and reduce their need to focus on firefighting.	We offer opportunities for businesses through educational programmes and encouraging the establishment of local waste services where waste diversion is prioritised. For example, The Sorting Depot has been set up to support additional recovery and incentivise local recycling business, contributing to the prosperity of the district

In addition to the above, there are other strategies with drivers and goals that are relevant to the management of our infrastructure. These strategies and their relevant drivers/ goals are captured in Table 3.2.2.

Table 3.2.2: Other strategic objectives and how these are addressed in this Plan.

Strategy	Objective/ driver	Description
Infrastructure Strategy	Taking care of what we have	We understand that asset data and evidence-based decision-making are critical to optimising costs and maximising the value our services bring to our customers. We protect and enhance public health by providing quality services. We own and operate infrastructure that is safe for our staff, suppliers, and customers.
	Resilience and responding to climate change	Our infrastructure protects and enhances our built environment and creates amenity value. We provide reliable services and infrastructure that is resilient to natural hazards and adapts to climate change. We provide system redundancy and emergency back-up systems to our critical infrastructure.
	Planning for growth	We work in partnership with Tangata Whenua when we plan for our infrastructure. Our infrastructure is an enabler for economic activity and future growth. We educate our community so they can make informed choices about how they use our services and manage demand on our infrastructure and services.
	Meeting the needs of the community and reducing our impact on the environment	We manage the consumption of energy and associated greenhouse gas emissions to mitigate our impact on climate change. We protect and restore the health of our natural environment. We manage the use of resources in a sustainable way, minimising waste and seek out opportunities to use wastes as a resource to be reused or recycled.
Waste Management and Minimisation Plan 2023	Provide local solutions that make the most out of materials	We will develop and implement localised solutions that maximise the efficient utilisation of materials in line with the waste hierarchy, thereby contributing to sustainable waste reduction and resource optimisation within our communities.
	Provide methods to help people use materials wisely	We will collaborate with the community to offer practical methods and strategies that empower individuals, businesses, and the community to conscientiously and efficiently utilise materials, fostering a culture of responsible resource consumption and waste minimisation.
	Enhance the environment through low waste and low emissions solutions	We will enrich the environment by implementing sustainable, low-waste, and climate-positive solutions that promote ecological regeneration and reduce the ecological footprint of our activities.

3.3 Legislative Requirements

There are many statutory and legislative requirements relating to the management of assets. Requirements that have a significant impact on the delivery of Resource Recovery are outlined in Table 3.3. Other statutory and regulatory requirements are captured in Appendix 1.

Figure 3.3: Significant Statutory and Legislative Requirements

Table 3.3: Significant Statutory and Legislative Requirements

Legislation/Regulation	Relevance to Service/Assets
Waste Minimisation Act 2008 and Amendments	This Act is aimed at reducing the amount of waste generated and disposed of in New Zealand (NZ). Its purpose is to protect the environment from harm and to provide economic, social, and cultural benefits for NZ. The Act: • Regulates product stewardship schemes for certain 'priority products' to encourage, and where necessary, enforce producers, brand owners, importers, retailers, consumers, and other parties take responsibility for the environmental effects from their products at end-of-life (from 'cradle-to-grave') • Controls the disposal of material to landfill. • Provides a mechanism to report disposal tonnages back to the Ministry for the Environment to improve information on waste minimisation. • Establishes a Waste Advisory Board to advise the Minister for the Environment on best practice in waste management. Imposes a levy on all waste disposed of in municipal landfills to generate funding to help local governments, communities and businesses minimise waste. The Act encourages reduction, re-use, recycling, and recovery. It also aims to benefit the economy by encouraging better use of materials throughout the product lifecycle, which promotes domestic reprocessing of recovered materials and provides more employment.

	Under the Act, NPDC are required to develop and adopt a Waste Plan that takes into consideration the goals of the NZ Waste Strategy 2010.
LGA 2002 and Amendments	This Act sets the statutory requirements for local governments and includes the mandatory preparation and adoption of a 30-year Infrastructure Strategy that underpins each LTP. The Act empowers councils to promote the wellbeing of communities. Waste collection and disposal is identified as a core service to be considered by a local authority.
Hazardous Substances and New Organisms Act 1996 and Amendments	This Act protects the environment, and the health and safety of people and communities, by preventing or managing the adverse effects of hazardous substances and new organisms.
Natural and Built Environment Act 2023	This is the primary legislation dealing with the management of natural and physical resources. It provides a national framework to manage land, air, water and soil resources, the coast, subdivision and the control of pollution, contaminants, and hazardous substances. This Act addresses Waste Management and Minimisation activities through controls on the environmental effects of waste activities.
Litter Act 1979 and Amendments	This Act was established to make better provision for the abatement and control of litter. The Act is a basic mechanism for local government to prevent littering. The functions of the Act include: • Establishing enforcement officers and litter wardens who may issue fines and abatement notices for litter offences. • Allowing territorial authorities to force the removal of litter. Allowing public authorities to make by-laws pursuant to the provisions of the Act
Climate Change Response Act 2002 and Amendments	This Act put in place a legal framework to allow NZ to ratify the Kyoto Protocol and to meet its obligations under the United Nations Framework Convention on Climate Change. This Act also enables the New Zealand Emissions Trading Scheme (NZ ETS). Operators of disposal facilities have specific obligations under the NZ ETS.
Health Act 1956 and Amendments	This Act sets out the powers and duties of local authorities. Subject to the provisions of this Act, it is the duty of local authorities to improve, promote, and protect public health within its district. Under Section 25 of this Act and if required by the Minister of Health, councils have a duty to provide sanitary works, which includes works for collecting and disposing of refuse.
Health and Safety at Work Act 2015 and Amendments	The objective of this Act is to promote the prevention of harm to all people at work, and others in, or in the vicinity of, places of work. Health and Safety is recognised as a key priority for the waste industry. A health and safety industry sector group has developed guidelines for the waste industry to ensure best practice in health and safety.

3.4 Customer Values

As a Local Government organisation, Council's primary customers are ratepayers who do not have a choice of supplier. In addition, Council is providing services to community groups, businesses, emergency services and visitors to the region. It is therefore essential that Council not only meet statutory requirements in delivering services, but that there is a strong understanding of customer needs and expectations including;

- what is important to the customer,
- whether the customer sees value in what is provided and,
- how customer satisfaction is expected to change based on the current budget.

Table 3.4 describes the key deliverables from the perspective of the customer, and how these values are expected to be impacted over the ten-year term of this AMP. These are measured in terms of customer satisfaction which is typically determined through direct feedback via survey, service requests or complaints.

Table 3.4: Customer Values

Service Objective	**Zero Waste 2040** Empowering Taranaki to Achieve a Circular Economy							
Customer Values	**Reporting Level**	**Satisfaction Measure**	**Latest Result (2022/23)**	**Target**				**Expected Trend**
				2024/25	**2025/26**	**2026/27**	**2034/35**	
We provide a quality kerbside rubbish and recycling collection service	LTP	Satisfaction Survey	New Measure	>80%	>80%	>80%	>80%	N/A

3.5 Levels of Service

The standard of service provided by Council is defined by the agreed level of service. The agreed levels of service for Resource Recovery are;

- deliver waste services and education programmes to actively encourage our communities to continually minimise waste levels throughout the district.
- enhance the environment through low waste and low emissions solutions.
- deliver waste management and minimisation services that customers are satisfied with.

Council's performance against these LoS is measured using replicable, factual measures that are SMART:

- Specific – it is clearly defined what the measure relates to,
- Measurable – success or failure can be measured without interpretation bias,
- Achievable – something that is possible to achieve,
- Relevant – something Council can reasonably be expected to have an impact on,
- Time-bound – a timeframe for completion or measurement is defined.

They are further grouped into two key categories;

- Customer Performance Measures (C): measure how the customer receives or experiences the service, in the context of what matters most to the customer, and
- Technical Performance Measures (T): measure the service the organisation provides in terms that are relevant to delivery, this includes technical indicators that may not be easily understandable to the layperson

The same LoS may be measured by considering either or both perspectives. This ensures that customers can interpret performance in a manner that is understandable to them, while regulators can also see that Council performance is meeting the required targets.

Table 3.5.1 outlines the measures used to determine the overall performance of these assets.

Table 3.5.1: Level of Service Measures

Relevant Services	Resource Recovery							
Level of Service Statement	Deliver waste services and education programmes to actively encourage our communities to continually minimise waste levels throughout the district.							
Measure	**C /T**	**Reporting Level**	**Latest Result (2022/23)**	**Target**				**Expected trend**
				2024/25	**2025/26**	**2026/27**	**2034/35**	
The reduction in total waste to landfill per capita in the district (measured as a year-on-year percentage)	T	LTP	3% (311kg per person) ✗	5%	5%	5%	15%	Maintain
The reduction in waste to landfill per household (measured as a year-on-year percentage)	T	LTP	1% (258kg per household) ✗	5%	5%	5%	15%	Maintain

Relevant Services	Resource Recovery							
Level of Service Statement	Enhance the environment through low waste and low emissions solutions.							
Measure	**C /T**	**Reporting Level**	**Latest Result (2022/23)**	**Target**				**Expected trend**
				2024/25	**2025/26**	**2026/27**	**2034/35**	
The number of abatement notices received	T	LTP	Nil	0	0	0	0	Maintain
The number of infringement notices received	T	LTP	Nil	0	0	0	0	Maintain
The number of enforcement orders received	T	LTP	Nil	0	0	0	0	Maintain
The number of convictions received	T	LTP	Nil	0	0	0	0	Maintain
Reduce the number of biogenic methane emissions from waste	T	AMP	New measure	2%	7%	5%	15%	Future trend to be determined once current performance is better understood.
Level of Service Statement	Deliver waste management and minimisation services that customers are satisfied with.							
Measure	**C /T**	**Reporting Level**	**Latest Result (2022/23)**	**Target**				**Expected trend**
				2024/25	**2025/26**	**2026/27**	**2034/35**	
The number of complaints about the Council's waste management and minimisation service received (per 1,000 customers).	C	LTP	2.72	2 or less	2 or less	2 or less	2 or less	Performance is expected to improve as the new Solid Waste services contract is implemented and stronger KPIs are in place.
The percentage of the community satisfied with the kerbside rubbish and recycling collection service.	C	LTP	New measure	> 80%	> 80%	> 80%	> 80%	Future trend to be determined once current performance is better understood.

Current performance can be seen at a glance using the icons within the table. These icons are described in table 3.5.2 below.

Table 3.5.2: Key

Icon			
Status of current performance	Performance target met	Substantially achieved, target not met by a slim margin (~2%)	Target not met.

Future Demand

4.1 Demand Drivers

Demand drivers are those factors which impact the extent to which an asset or service is required and used, or the type of service required. Demand drivers include factors such as;

- population size, growth, and demographics,
- urban development including residential dwelling growth, location, makeup, and quantity,
- consumer requirements, preferences, expectations, and patterns of use,
- technology type, use, rate of change, level of interaction and customer expectations,
- legislative environment including central government reform,
- district economy including changes in the dominant industry and increases in specific high impact industries such as agriculture,
- tourism industry, visitor numbers and financial changes, and
- environmental factors such as those occurring through climate change.

The specific factors relevant to each service and the impact of those drivers are expanded upon below.

4.2 Demand Forecasts

NPDC prepares and adopts a range of non-financial forecasting assumptions to support the preparation of significant plans including AMPs and the LTP. These assumptions present a likely future scenario of projected changes in key demand drivers. By adopting one set of forecasting assumptions Council can have confidence that each plan will be aligned and focused towards fulfilling the same organisational objectives and long-term outcomes for the community.

4.3 Demand Impact and Management Plan

The impact of relevant demand drivers on the Waste Management and Minimisation service and how those impacts are managed is shown in Table 4.3 below.

Council utilises a variety of demand management strategies to control the extent to which demand has an impact on customer satisfaction and levels of service. These demand management strategies include;

- changing the management of existing assets (through methods such as balancing peak and off-peak demand, optimising utilisation and reducing wastage),
- upgrading existing assets,
- providing new assets, and
- reducing levels of service to meet customer appetite/willingness to pay.

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population	Estimated district population in 2024: 89,000	2034 projected population: 98,800 (11% increase)	Increase in number of properties receiving the kerbside collection service. Increase in volumes of waste going through Transfer Stations and/or Recovery Centres	Master planning for RTSs to ensure they are fit for purpose and are focused on the diversion of waste from landfill. Ensuring the Solid Waste Services contract is future proofed to ensure the service can meet demand increase.
Age	2024: 0-14yrs – 19% 15-39yrs – 29% 40-64yrs – 31% 65+yrs – 20%	Population is aging, decreasing proportion of youth and increase in over 65s. 2034: 0-14yrs – 16% 15-39yrs – 31% 40-64yrs – 29% 65+yrs – 23%	Increase in demand for assisted collection service. Increase in demand for more accessible resource recovery facilities.	Including assisted collection services in the Solid Waste Services contract Master planning of our Rural Refuse transfer Stations with accessibility taken into consideration
Accessibility	Proportion of district residents with accessibility issues: 7.5%	Expected to increase to 8.5% by 2034	Increased expectation of facilities being designed with accessibility in mind and that all spaces can be accessed.	Increase accessibility as part of planned renewals or when relevant upgrades are occurring.
Economic activity	NP District GDP 2022: $7.02B	Expected to increase at a steady rate of 1.5%/year	Fluctuation in revenue or costs associated with recyclable commodities	Securing end markets through commercial agreements Provide services and infrastructure that optimises value of commodities
Government Reforms	Affordable Waters Reform, Resource Management Act Reform and LGA review all underway but expected to be repealed or changed within 6-months.	Formal reforms to be repealed in favour of a Local Government led approach.	Minimal impact, waste services are already procured through a regional approach and regional collaboration is high.	The Resource Recovery team will continue to work collaboratively with the other district councils in Taranaki.
Increasing technology	Increasing use of online & downloadable technology such as	Increased use of mobile & interactive technologies such	Improved ability to collect real time data and provide more targeted services.	Working with contractors on technology improvements to improve data capture and service delivery.

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
	e-books, audiobooks & programmes via internet	as smartphones, computers, tablets, and VR systems.		
International instability	War in Ukraine and the Covid pandemic is driving up the cost of fossil fuels and causing supply chain shortages & delays	Significant cost increases in fossil fuel (e.g. gas for boilers, diesel for generators). Significant delays sourcing equipment parts from overseas	Delays in parts to repair equipment and vehicles Commodities end markets may become volatile. Increase in fuel prices as well as potential for reduction in fuel availability	Invest in renewable energy sources like solar, wind or biomass to supplement or replace fossil fuel consumption. Maintain strategic inventories of critical equipment parts to buffer against supply chain disruptions.
Improved iwi engagement	Te Tiriti O Waitangi is becoming a significant driver for NZ activities	Relationship with local iwi and hapū developed into full partnership	Improved holistic, culturally sensitive, and sustainable approach to handling waste in the community. Promotes a sense of shared responsibility and contributes	Colson Road landfill 2050 working group and inclusion of hapū on The Junction Steering Group
Legislative changes	Reform of the Waste Management and Minimisation Act and Litter Act	Increased demand on Councils to report and comply with set diversion targets (50% diversion from kerbside by 2030) Increase in Council resourcing to meet regulatory oversight and enforcement	Increase in workload both operationally and through behaviour change to achieve these targets.	Included into the New Plymouth Waste Plan.
Future Planning	Responding to resource consent requirements and strategic plans for sites	Closure of the Colson Road Regional landfill and developing the future use plan. Monitoring of historic landfills for environmental impacts	Increase in workload operationally to monitor landfills.	Implement monitoring regime.

4.4 Asset Programmes to meet Demand

The new assets required to meet demand may be acquired, constructed, or donated. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit Council to ongoing operations, maintenance, and renewal costs for the entire length of time that the asset provides a service to the community. Forecasting these changes in costs is currently completed inconsistently or not at all. This has a flow-on effect whereby forecast costs for operations and maintenance can be underestimated, or at worst, not considered for long term budget planning. Development and implementation of a process for lifecycle costing is recorded as an improvement action in Section 8.

4.5 Sustainability & Resilience

Council has a vision of becoming a Sustainable Lifestyle Capital. Council's sustainability efforts are driven by a focus on;

- conservation of energy and resources (such as water)
- nurturing, and reducing our impacts on the environment
- increasing biodiversity in our district
- increasing recycling and working towards zero-waste
- sustainable procurement practices
- planning and building communities and infrastructure that interact with the environment, and
- working toward net-zero emissions

These things are achieved through a combination of changing the work practices within our organisation and educating the community to be more sustainable in their own homes and workplaces. Table 4.5.1 summarises the changes to assets that could be made to increase overall sustainability.

Table 4.5.1 Building asset sustainability

Proposed new/ changed asset	Long-term impact/sustainability concern	Outcome of planned change
Bins for kerbside collections	Heavy use of bins, coupled with exposure to adverse weather, results in a high amount of bin repairs and/or replacement	Repair bins wherever possible rather than replace. Where bins cannot be repaired, recycle the damaged bin in the production of new bins. Procure bins that are comprised of predominantly recycled content so demand on virgin plastic is minimised. Educate residents on best methods for storing and placing bins to increase longevity.

Introduction of Electric Resource Recovery Vehicles*	Reduced greenhouse gas emissions, lower operational costs	Lower environmental impact, decreased reliance on fossil fuels
Integration of Smart Resource Recovery Systems*	Improved route optimisation, real-time monitoring	Enhanced operational efficiency, reduced fuel consumption
Adoption of Waste-to-Energy Technologies	Energy recovery from waste, reduced landfill reliance	Renewable energy generation, decreased landfill usage

*Assets owned by contractors cannot be directly changed by the council, however the council can influence future asset sustainability by building sustainability into future contracts.

NPDC, like many organisations, is working to improve sustainability and resilience in recognition of the requirements of the Paris Agreement to minimise the increase in global average temperature and address climate change. The New Zealand Government signed this agreement and NPDC as a territorial authority of New Zealand are bound to meet these requirements.

4.6 Climate Change Adaptation

Climate change has the potential to have significant, long-term impacts on the assets managed by Council, and the services they provide to communities. Within the context of the asset management planning process, climate change can be considered as both a future demand and a risk.

Climate change is anticipated to result in several impacts, such as greater extremes of temperature and weather, more frequent severe weather events, and elevated sea-levels. These impacts are likely to have direct consequences on Council assets, the services they provide, and the communities that depend on those services.

Council has made a commitment to reducing the district's overall contribution to greenhouse gas emissions and has prepared a District-wide Emissions Reduction Plan that outlines the current state, identifies how reducing emissions could impact climate change, what NPDC's role in emissions reduction is, and specific actions that will be taken as we work towards meeting the national targets as indicated in New Zealand's first emissions reduction plan. These plans are part of a network of related documents that guide Council's decision-making in this space, as shown in Figure 4.6.1.

Figure 4.6.1: Decision-making documents relevant to sustainability

* Policies internal to NPDC

In addition to reducing the production of emissions, Council has identified the potential impact of climate change on its Resource Recovery assets and the actions that will be taken to manage these issues is indicated in Table 4.6.1 below.

Table 4.6.1 Managing the Impacts of Climate Change on our Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Severe weather events	Increase in rainfall quantity and duration, increase in strong wind events	Potential for increase in number of unauthorised discharges of leachate from the Colson Road Regional landfill Increase in number of damaged kerbside collection bins during strong wind events. Potential for coastal and/or fluvial erosion at historic landfill sites.	Increase capacity in the Leachate overflow pond to cater for impacts of climate change. Increase public education around not putting bins out if residents don't have to when it is windy.
Increased temperature	Increased temperatures may lead to increased pest species, pathogens/ bacteria, odour, and seagull presence at waste facilities. Food scraps collection will quickly deteriorate (weekly). Other waste is fortnightly. Not a major issue for general waste and less of an issue for transfer stations.	Potential for an increase in odour and pest issues along with health and safety concerns for staff members and public.	Increase in collection frequency may be required.

Community environmental expectations	Communities are likely to have higher expectations for sustainable waste management practices that reduce environmental impact and mitigate climate change effects.	There will be a greater demand for recycling, composting, and waste – to – energy initiatives to minimise landfill use and reduce greenhouse gas emissions.	A combination of programs, facility upgrades, and policy changes will need to be put in place to manage the impact.
Elevated sea-level	Elevated sea-levels could lead to infrastructure vulnerability and disruption of transportation routes.	Coastal landfills and waste management facilities are at increased risk of flooding and erosion due to rising sea levels. This can lead to the release of pollutants and contaminants into the surrounding environment. Coastal roads and transportation routes used for collection may be more susceptible to flooding and damage, leading to delays and interruptions in collection services.	Implement adaptive measures such as elevating waste facilities, enhancing protective infrastructure and considering alternative waste management strategies.

Lifecycle Management Plan

The lifecycle management plan section details how Council plans to manage and operate its assets to meet the agreed levels of service (refer to Section 3) while managing lifecycle costs.

5.1 Background data

5.1.1Asset data and information

Asset data is collected and managed by Council within several key systems including;

- TechOne Enterprise Asset Management system (TechOne/ EAM) – manages financial information, customer information and requests, asset registers and history, work order management and maintenance scheduling. It is linked with the TechOne Enterprise Content Management (ECM) system which manages records
- ArcGIS – manages spatial records (GIS)
- RedEye – manages all drawings including concept, working and as-built drawings
- SharePoint – supports the sharing of working and in-draft documentation, the collection of data into lists and the sharing of information and processes to internal parties via 'wiki' pages

The quality of Council's asset data is essential for supporting effective decision-making in relation to our maintenance, renewal and upgrade work programmes. Information such as asset condition, remaining useful life (RUL) and asset valuations are central to the discussions in this AMP.

Asset data is captured through a variety of processes including;

- when new assets are acquired (e.g. capital projects, community developments, operational renewals)
- when maintenance works are undertaken
- when new valuations or condition assessments are completed, and
- when assets are disposed of

Consistent and timely capture of data has been identified as an area for improvement – both externally with contractors and subcontractors at asset installation, completion and commission stages, as well as internally between teams – and will ensure that maintenance is undertaken appropriately and assets capitalised promptly within the system.

5.1.2Asset hierarchy

An asset data hierarchy is a systematic and structured framework of business units, processes, systems and equipment into generic groups based upon organisational relationships and functions. The hierarchy allows Council to identify its assets and related components, as well as creating a clear and logical framework for asset management. A well-defined asset hierarchy is critical to Council's overall AMIS. The asset hierarchy includes the asset class and components used for asset planning and financial reporting, and service level hierarchy used for service planning and delivery. Data is continually updated with details from asset condition assessments and as asset repairs, improvements and completion of other operational works.

Current data confidence levels are indicated in Table 7.5.2.

The organisation's asset hierarchy is currently a work in progress, as Council is undergoing a system migration to an updated online version of TechOne. The migration towards an updated version of TechOne is a multi-stage rollout, and will deliver improvements to our asset data such as;

- recording of land assets within the asset management system for whole-of-life asset management and reporting
- implementing the review and alignment our asset data schemas delivered by the AIR project. This will align ADAPTs asset register to relevant asset management standards as well as identifying the business processes that they support.
- providing the organisation an opportunity to undertake a data cleanse of our asset data prior to the data migration, to improve overall asset data accuracy and asset data system integrity.

The organisation's current asset hierarchy is a work in progress, continually being updated and improved. The current hierarchy is shown in Table 5.1.2.

Table 5.1.2: Asset service hierarchy

Service Hierarchy	Service Level Objective
The Junction	Acting as Council's Zero Waste Hub, The Junction encompasses the Material Recovery Facility (MRF), Resource Recovery Facility, and a ReUse shop and education space. This co-operative asset fulfils multiple roles for district residents, enabling waste disposal, recycling collection as well as item recover and reuse, as well as providing education services to enact behaviour change around waste management practices.
The Sorting Depot	The Sorting Depot is a commercial waste sorting facility on Colson Road, New Plymouth. This facility sorts reusable and recyclable materials from mixed skips of dry waste, and in particular skips of waste from building sites, demolition, strip-outs and office clear-out activities.
Transfer Stations	Site-specific facilities that are purpose-built to allow all commercial and household residents to dispose of their waste and recycling, as well as items that can be reused or re-purposed. There are five transfer stations throughout the

	district; New Plymouth, and four rural transfer stations of Inglewood, Ōkato, Waitara & Tongapōrutu.
Waste Management and Minimisation Fleet	Fleet assets that directly collect all waste and recycling matter from residential kerbsides, such as rubbish and recycling trucks. These assets are owned, operated, managed, and maintained by EnviroNZ, the current contract operator.
Residential Waste and Recycling Assets	Assets that are used by district residents for the collection of household non-recyclable waste, recycling, glass, and organic waste via kerbside collection services. Council provides all district residents with specific collection bins for household waste, glass, recycling, greenwaste, and organic (food scraps) waste.
Landfills	Landfills were historical sites for residents to dispose of waste throughout the district. There are no active landfill sites within NPDC's district boundaries.

5.1.3 Scope

The assets covered by this AMP are listed in Table 5.1.3 below.

Table 5.1.3: Waste Management and Minimisation assets

Asset category	Description	Amount + Unit	Asset value ($)
Kerbside Collection bins	140L MGB landfill	30,750	$1,824,980
	240L MGB Recycling	30,750	$2,147,974
	60L Glass Crate	30,750	$456,171
	23L Food Scraps bin	30,750	$685,502
Civil	Pipe	56	$1,117,133
The Sorting Depot	Manhole	9	$41,997
Colson Road landfill	Inlet	13	$41,950
Rural Refuse Transfer Stations Electrical	Outlet	3	$15,786
	Tank	1	$8,301
	Cabinet – Control Panel	1	$263,002
	Cabinet – Variable Speed Drive	1	$10,970
Kerbside Collection bins	Fan - Supply	2	$41,355

Mechanical	Motor	1	$2,697
	Filters and strainers	1	$2,068
	Hydrant	2	$7,189
Civil Instrumentation	Valve	29	$190,894
	Analyser	3	$39,063
	Flow Meter - Process	1	$19,105
	Indicator - Pressure	1	$2,016
	Indicator - Temperature	2	$2,764
Electrical Structure	Switch - Position	4	$9,512
	Fence	1	$3,468
	Gate	1	$3,468
		Total	**$6,937,365**

Note: Valuations of all assets above were conducted in March 2022, these valuations are undertaken every 3 years.

The assets described in this plan are primarily owned and maintained by NPDC. Council also provides support and assists in the management of assets wholly or partly owned by other parties including (but not limited to) those owned by TRC through joint ventures, via Council Controlled Organisations (CCO's), shared community assets, and assets owned by community groups that utilise Council facilities.

These assets are typically excluded from the full lifecycle planning process as while Council has a vested interest, the organisation cannot dictate future actions to be taken in the management of these assets. Table 5.1.3 details the assets that are specifically being excluded from this lifecycle management plan section and the reason(s) why.

Table 5.1.3: Assets excluded from this plan

Asset	Details	Why excluded
Buildings	Buildings that Resource Recovery utilise are managed by the Property team and are included in the Property AMP.	All buildings are maintained by Property for the council. The property team have the knowledge to manage these assets.

Sewer Pump Stations	Sewer Pump Stations that Resource Recovery utilise are managed by the 3 waters team.	All pump stations are maintained by the 3 waters team for the council. The 3 waters team have the knowledge to manage these assets.
Green Space	Green space next to areas resource recovery utilise, such as The Junction, are managed by the Parks team.	All green spaces are maintained by the parks team for the council. The parks team are best resourced to maintain green spaces.

5.1.4 Asset capacity and performance

Council aims to construct and maintain assets to meet design standards and specified performance requirements where these are available. However, there are insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in Table 5.1.4.

Table 5.1.4: Known service performance deficiencies

Asset & Location	Service Deficiency
Rural Transfer Station Upgrades	Current Rural Transfer Stations do not align with objective of Waste Minimisation Plan. Require masterplans for all 3 sites, intent is to upgrade sites.
Colson landfill Gas System Upgrade	The Colson landfill contributes a significant portion of the total emissions for Resource Recovery. Upgrading the Gas System is one of two key projects that will help NPDC meet the Emission Reduction Plan (ERP) targets.
Colson Road landfill Closure Works	The Colson Road landfill no longer meets legislative requirements and needs to be capped.
Historic landfill Erosion Protection	Historic landfills are at risk of erosion and require protection. There is high public interest in this and carries risk to council reputation and environmental damage.
Stormwater improvements at The Sorting Depot	Current stormwater assets do not meet required resource consent and require upgrade.
Resource Recovery Facility Armco Culvert	Culvert is approaching end of life and requires renewal. Increased demand due to climate change and growth on Smart Road will put additional strain on asset. If culvert fails, this will have a significant impact on new and critical Resource Recovery Facility Infrastructure Assets.
Colson Road landfill Leachate Pond Improvement	Once capping of the Colson Road landfill is completed, further work will be required as part of consent renewal to ensure the impact of climate change on leachate generation is minimised.

The above service deficiencies were identified from current projects loaded into P3M.

5.1.5Asset condition

Asset condition is monitored and recorded on the asset register using a rating system, as detailed in Table 5.1.5.

Table 5.1.5: Condition rating system

Condition rating	Description of condition
1	Excellent - free of defects, only planned and/or routine maintenance required
2	Good - minor defects, increasing maintenance required plus planned maintenance
3	Average - defects requiring regular and/or significant maintenance to reinstate service
4	Poor - significant defects, higher order cost intervention likely
5	Very poor - physically unsound and/or beyond rehabilitation, immediate action required
6 (or 0)	Unknown, not currently assessed, or non-existent. *Note: Condition ratings of 0 have been converted to 6 in the graphs provided below to provide consistency.*

Across Council's asset portfolios several issues have been identified with the condition assessment approach undertaken at present. These include;

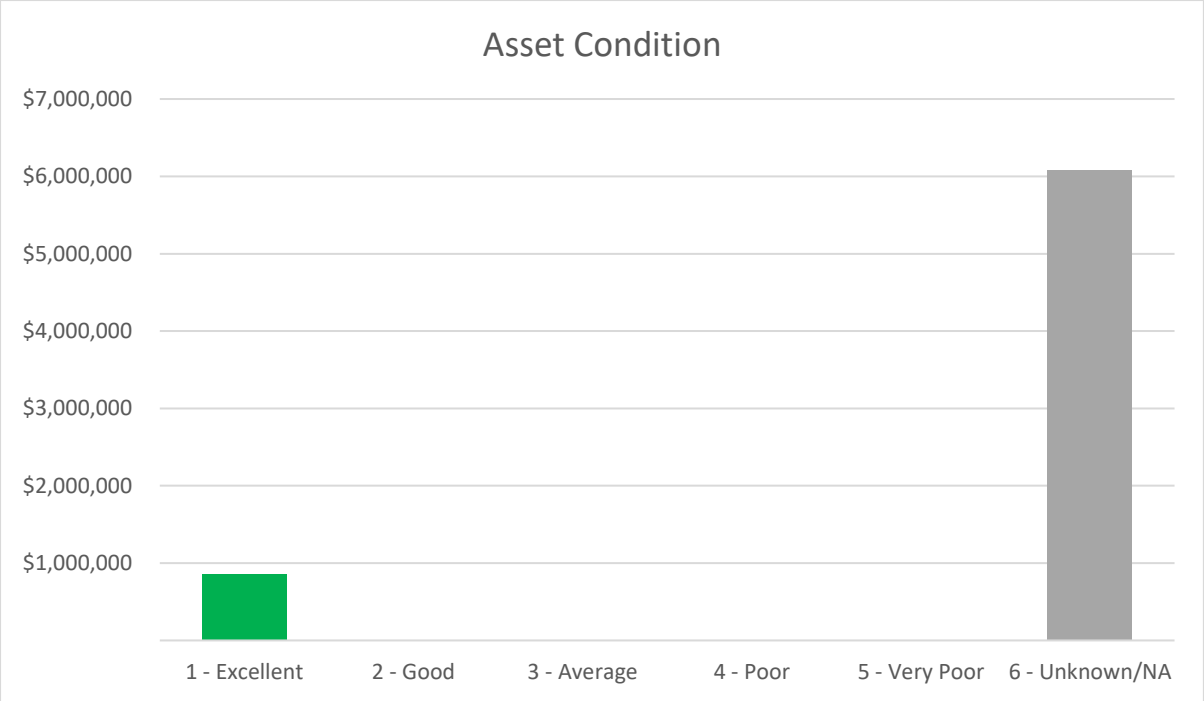
- an inability to easily record the date on which the assessment was undertaken and consequently a lack of awareness of data currency,
- condition assessment data that has not been entered into the asset register but remains in separate hardcopy or other electronic documents, and
- inconsistencies in rating approach (including basing the rating on asset age rather than a physical assessment).

Addressing the above issues and filling gaps in the historical data are actions identified within the Asset management strategy improvement plan for all asset groups.

Improving the management and frequency of condition assessments has been identified as a key improvement. Initial works will focus on completion of condition assessments on all critical assets and implementation of a standard work programme for routine assessment of other assets.

The condition profile of Resource Recovery assets is shown in Figure 5.1.5.1.

Figure 5.1.5.1: Asset condition profile



All figure values are shown in current day dollars.

Resource recovery assets have not yet been assigned a criticality rating within EAM. For this reason, no condition profile of critical assets can be provided at this stage. This has been identified as a future improvement in the improvement plan.

Kerbside collection bins account for nearly 75% of the total resource recovery portfolio. The general assumption is that the bins are in working condition and are therefore in 'Good' condition. When bins are in 'Poor' condition, the community will generally phone the council and request a new bin. Therefore, a formal condition assessment of the bins is not seen as necessary. An improvement would be to bulk update the condition of the kerbside collection bins in Tech1 to 'Good' condition and ensure complete and timely condition assessments are carried out for the remainder of the other assets.

5.2 Operations and Maintenance Plan

Operations activities are those regular activities required to provide the service. Examples of typical operational activities include monitoring inputs and outputs, cleaning, security, insurance, inspection, and utility costs.

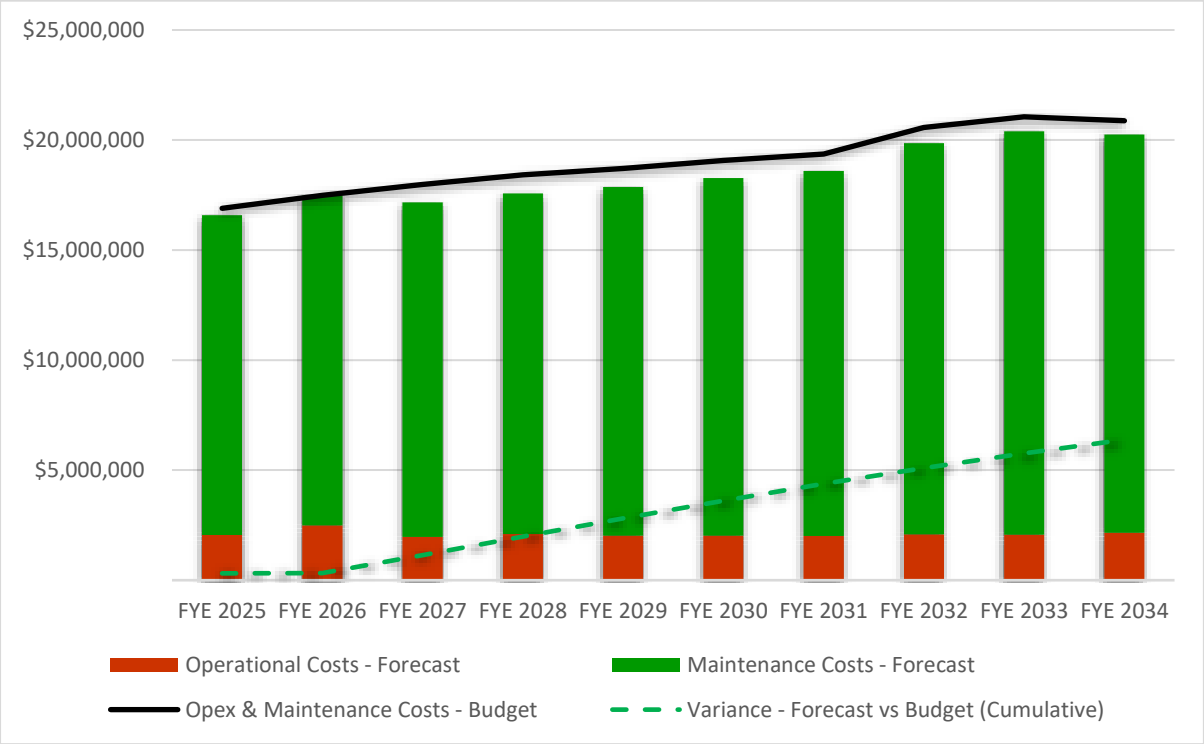
Maintenance activities are those actions necessary to keep the asset as near as practicable to an appropriate service condition including regular, ongoing day-to-day work necessary to keep assets operating. Examples include servicing of equipment, minor repairs, pipe repair etc.

The maintenance budget is adequate to meet planned service levels. This budget includes an allocation for both preventive and reactive maintenance. Assessment and prioritisation of reactive maintenance is undertaken by operations team members using experience and best judgement. For shared assets such as buildings, maintenance is undertaken according to the specifications in the relevant Service Level Agreements (SLA's).

5.2.1 Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset portfolio. As additional assets are acquired, the future operations and maintenance costs are forecasted to increase. Where assets are disposed of the forecast operations and maintenance costs are expected to decrease. Figure 5.2.1 shows the forecasted operations and maintenance costs relative to the proposed operations and maintenance budget.

Figure 5.2.1 Operations and Maintenance Summary



All values in graph are adjusted for inflation.

The above graph shows there is adequate budget compared with forecast operations and maintenance costs. The slow increase in costs over the next ten years is primarily due to the acquisition of new assets and the additional cost required to operate and maintain these new assets.

5.3 Renewal Plan

Renewal works are those activities that restore, rehabilitate, replace, or renew existing assets back to the original or 'as new' standard. This work does not significantly alter the original service provided, any work that goes over and above renewal work is considered to be an acquisition (see Section 5.4).

Assets that require renewal are determined through;

- asset condition assessments that return assessments of 'poor' or 'very poor',
- RUL information and values captured in the asset register,
- staff judgement on the remaining life of the asset, based on asset condition, maintenance expense, or average renewal requirements for network assets (for example buried pipes or road renewals).

Renewals may be initiated for an asset prior to scheduled end-of-life dates if other works are planned to occur in the same area and efficiencies may be gained by undertaking scheduled renewal works at the same time. This approach may also be applied when Council assets are impacted by other organisations. For example, if a road is being trenched to work on power or phone lines, Council may decide to renew the nearby water, wastewater or stormwater pipes before the road surface is re-sealed. This approach will minimise overall disruption and rework and could ultimately provide financial cost efficiencies for Council and ratepayers.

5.3.1 Asset Age and Remaining Useful Life

The total useful lives of the assets in this AMP are shown in table 5.3.1. Asset useful lives were last reviewed in June 2022 as part of Council's scheduled asset valuation process.

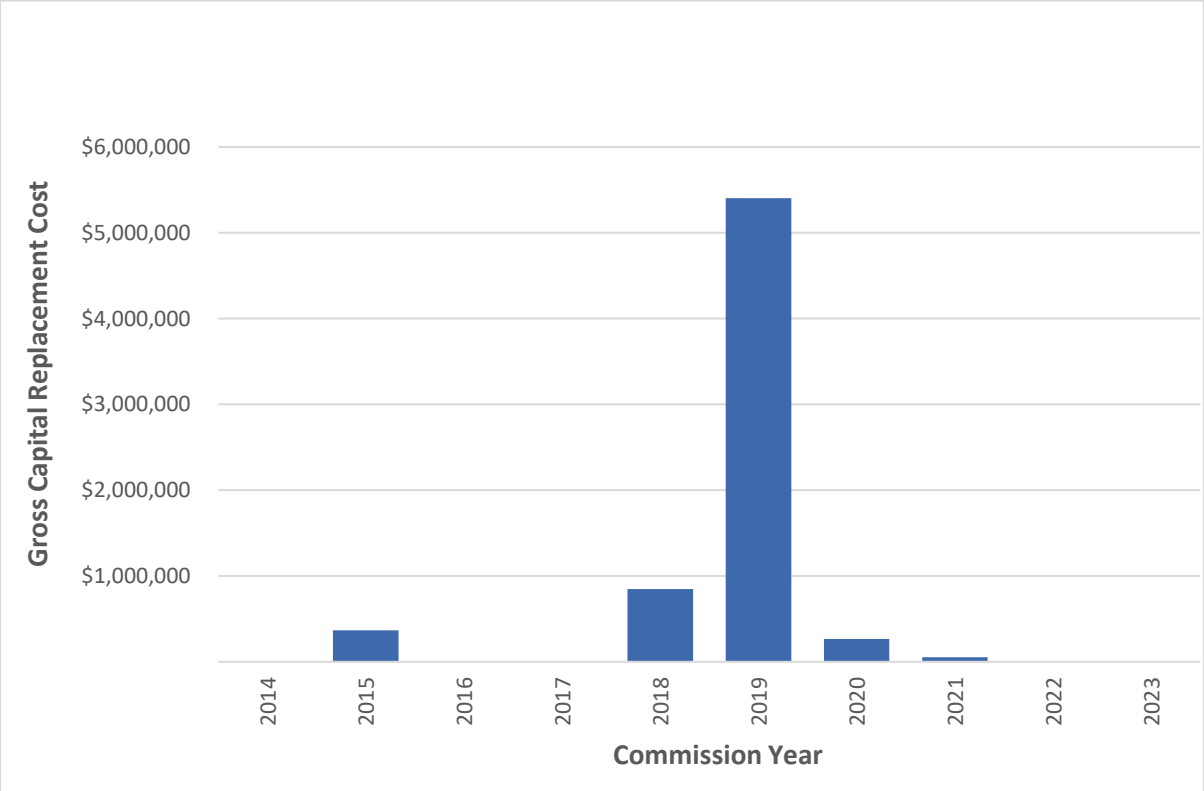
Table 5.3.1: Total useful lives of assets

Asset	Subcategory	Total useful life
Kerbside Collection Bins	140L MGB landfill	10
	240L MGB Recycling	10
	60L Glass Crate	10
	23L Food Scraps Bin	10
Civil	Pipe – Process Pipe – Reticulation/Service	20 80-100
	Manhole	100
	Inlet	50
	Outlet	80
	Tank	20
Electrical	Cabinet – Control Panel	20
	Cabinet – Variable Speed Drive	20
	Fan - Supply	20

	Motor	20
Mechanical	Filters and Strainers	20
	Hydrant	90
	Valve	20
Instrumentation	Analyser	20
	Flow Meter - Process	20
	Indicator - Pressure	20
	Indicator - Temperature	20
	Switch - Position	20
Structure	Fence	20
	Gate	20

The age profile of the assets included in this plan are shown in Figure 5.3.1.1.

Figure 5.3.1.1: Asset age profile

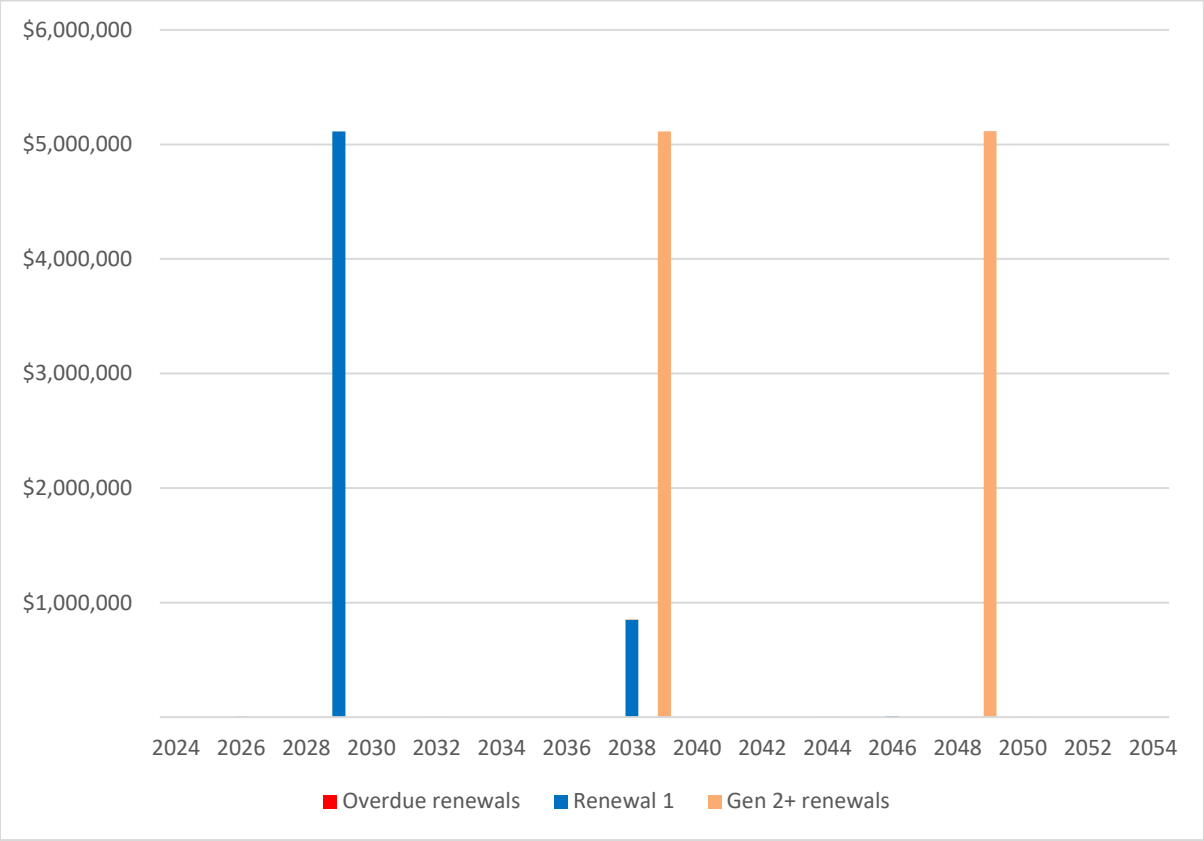


All figure values are shown in current day dollars.

Figure 5.3.1.2 provides a 30-year forecast of the future renewal requirements based on RUL. This information is often used to guide long-term planning (i.e. 10-30 years), but is less frequently used to guide short to medium-term planning (i.e. 1-10yrs), as Council's data does not consistently consider factors such as condition assessment within the recorded RUL figures. For this reason, the renewal

forecast in this AMP is primarily based on condition assessment and staff judgement. Strengthening the overall quality of data within the asset management information systems is a planned future improvement.

Figure 5.3.1.2: Asset renewal forecast by remaining useful life (RUL)



All figure values are shown in current day dollars.

The above graph shows there are three major peaks based on remaining life. This is because the bins were initially purchased at the same time. Typically, the council replaces approximately 4% of its bins per annum, however in a 10-year period (RUL of bins) this would only account for 40% of total assets.

Because the council has a set rate for purchasing bins, there is no benefit for purchasing in bulk. If we were to purchase in bulk, storage would then become an issue.

It is worth tracking the number of bins that are replaced year on year as they approach end of life to help forecast how many bins should be purchased in the future.

5.3.2 Renewal ranking criteria

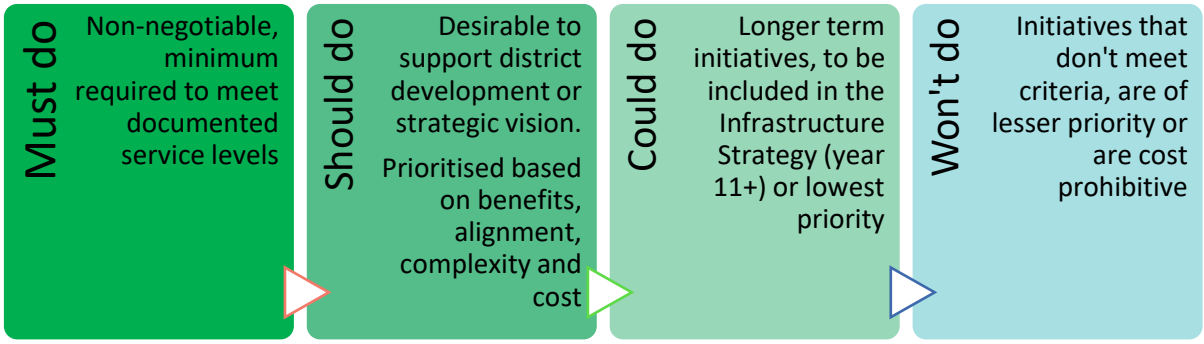
Asset renewal is typically undertaken to either:

- ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g., replacing a bridge that has a 5-tonne load limit), or
- to ensure the infrastructure is of sufficient quality to meet the service requirements (e.g., condition of a playground).

It is possible to prioritise renewals by identifying assets or asset groups that;

- have a high consequence of failure,
- have high use and subsequent impact on users would be significant,
- have higher than expected operational or maintenance costs, or
- have potential to reduce lifecycle costs by replacement with a modern equivalent asset that would provide the equivalent service at a reduced cost.

Council prioritises renewals as part of the project prioritisation process, occurring as part of Council's legislatively required LTP process. The initial assessment stage of the project prioritisation process is most crucial for renewals and divides projects into four categories.



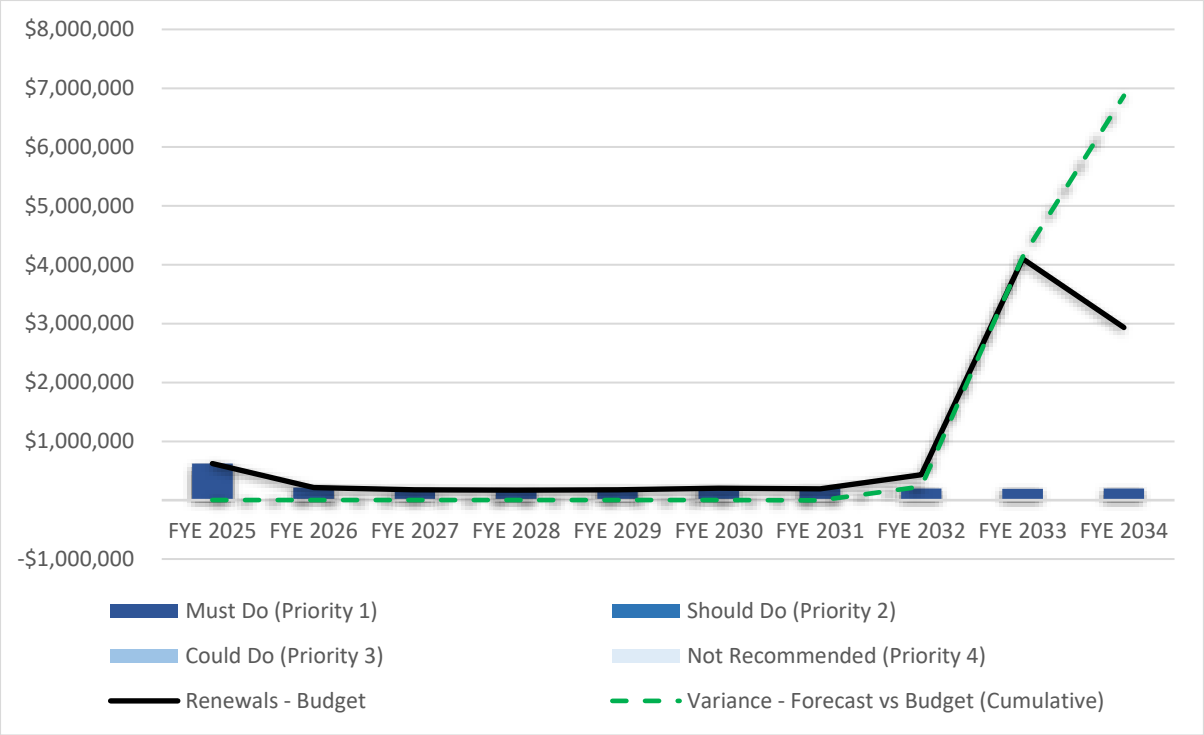
The 'Must do' category includes all critical renewals (including the mitigation of risks ranked medium and above) and the standard renewal budgets for small recurring renewals (these are primarily miscellaneous budgets of <$100K/year).

Non-critical asset renewals are captured in the 'Should do' category and undergo prioritisation as described in section 5.4.1. (Note: Critical assets are detailed in Section 6.1).

5.3.3 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.3.3.

Figure 5.3.3: Forecast renewal summary



All values in graph are adjusted for inflation.

The above graph shows relatively consistent renewals for the first eight years followed by a dramatic spike in the last two years. This spike is due to the renewal of an Armco culvert at the Resource Recovery Facility with construction spread over the final two years. Because this is a major structure with a large one-off cost in the region of $5M-$6M, the renewal cannot be spread across multiple years to smooth out the forecast.

There is adequate budget for these renewals which means we will be able to maintain our current levels of service.

5.4 Acquisition Plan

Asset acquisitions include the following types of projects:

- projects that create assets that did not previously exist,
- works which will upgrade or improve an existing asset beyond its current capacity, and
- assets that may have been donated to Council.

The drivers for undertaking acquisition projects or acquiring new assets can be due to level of service changes, growth, or a combination of each. Renewal works may also be combined with acquisition projects where there is a desire to change service levels or respond to growth.

5.4.1 Selection criteria

Proposed acquisitions of new assets and upgrading of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Council also has a documented project prioritisation framework that provides a transparent and structured approach to reviewing and prioritising projects for inclusion in our LTP. The same process and prioritisation criteria are used for both acquisition and renewal projects.

Proposed upgrade and new work analysis also include the development of a lifecycle costs estimate to ensure that the services are sustainable over the longer term. This is captured within the Detailed Business Case which is prepared for all except the simplest projects.

The priority ranking criteria and weighting is detailed in Table 5.4.1.

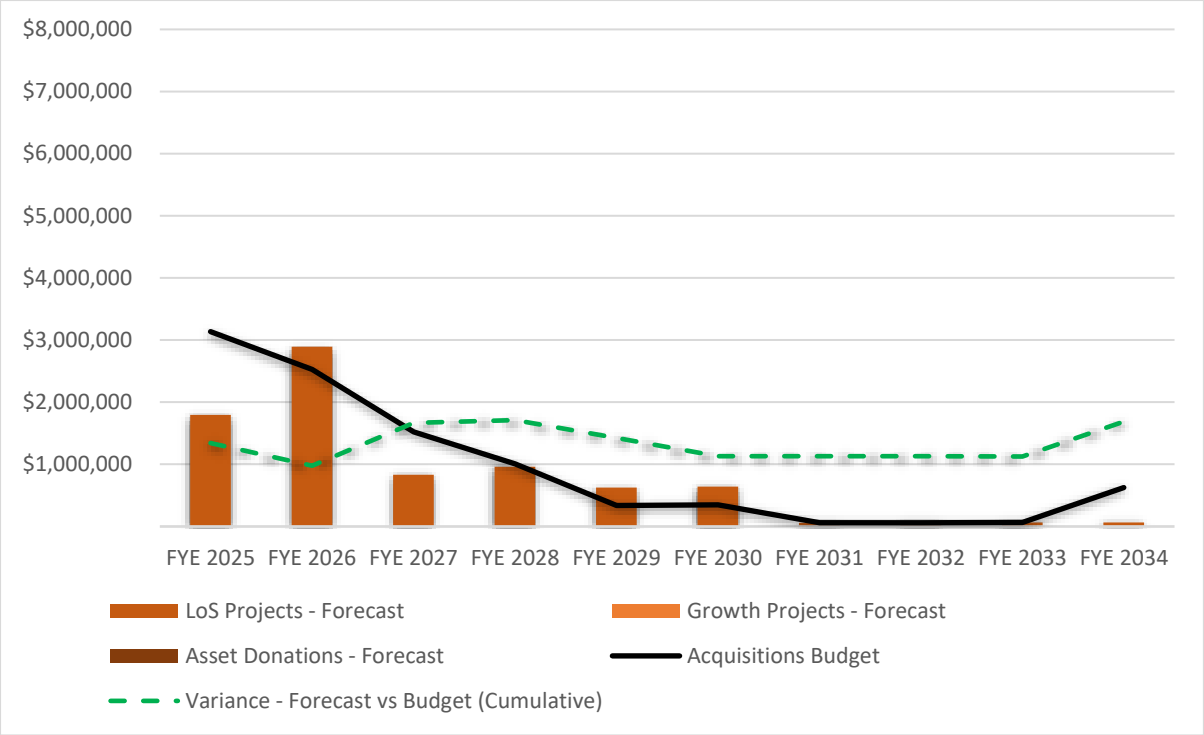
Table 5.4.1: Project prioritisation criteria & weighting

Criteria	Weighting
Strategic alignment	35%
Benefits	20%
Level of Service	15%
Risk Mitigation	15%
Ease of execution	15%
Total	**100%**

5.4.2 Summary of future acquisition costs

Forecast acquisition asset costs are summarised in Figure 5.4.1 and shown relative to the proposed acquisition budget.

Figure 5.4.2.1: Acquisition summary

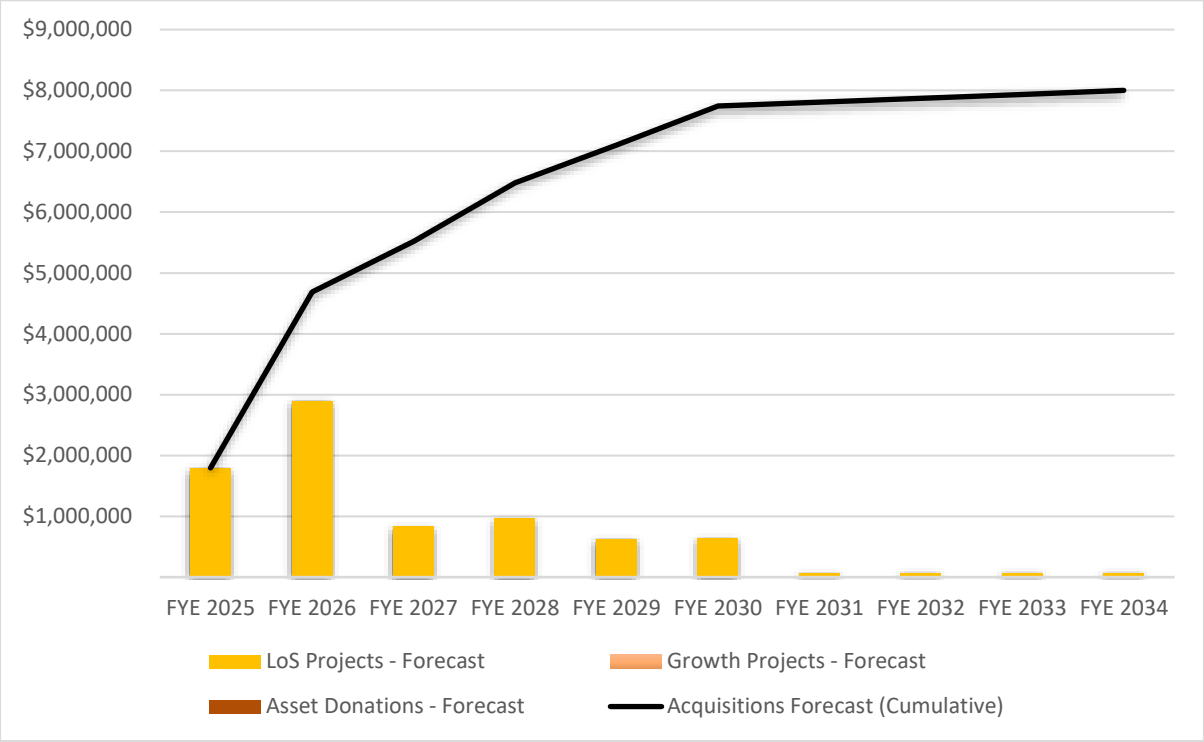


All values in graph are adjusted for inflation.

For all new assets there are corresponding future operations, maintenance and renewal costs that must be accounted for within the LTP. Future depreciation must also be considered when reviewing long-term sustainability. This is one activity within the LTP process that Council needs to improve upon, as clarity on the lifecycle costs of future acquisitions will ensure that these costs are factored appropriately into Council's lifecycle budgeting.

The cumulative value of all acquisition work, including both constructed and contributed assets are shown in Figure 5.4.2.

Figure 5.4.2.2: Cumulative asset acquisition



All values in graph are adjusted for inflation.

Expenditure on new assets and services in the capital works programme will be accommodated in the LTP, but only to the extent that there is available funding.

The above graph shows a large increase in acquisitions in the first two years, followed by some moderate increases in the next four years and then returns to very little acquisitions from the seventh year onward. The largest notable acquisition is the Organic Waste Processing Facility. Acquiring this new facility will mean any new assets will require committed funding for ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required.

5.5 Disposal Plan

Disposals includes any activities associated with the disposal of a decommissioned asset. This includes the sale, demolition, or the relocation of the asset.

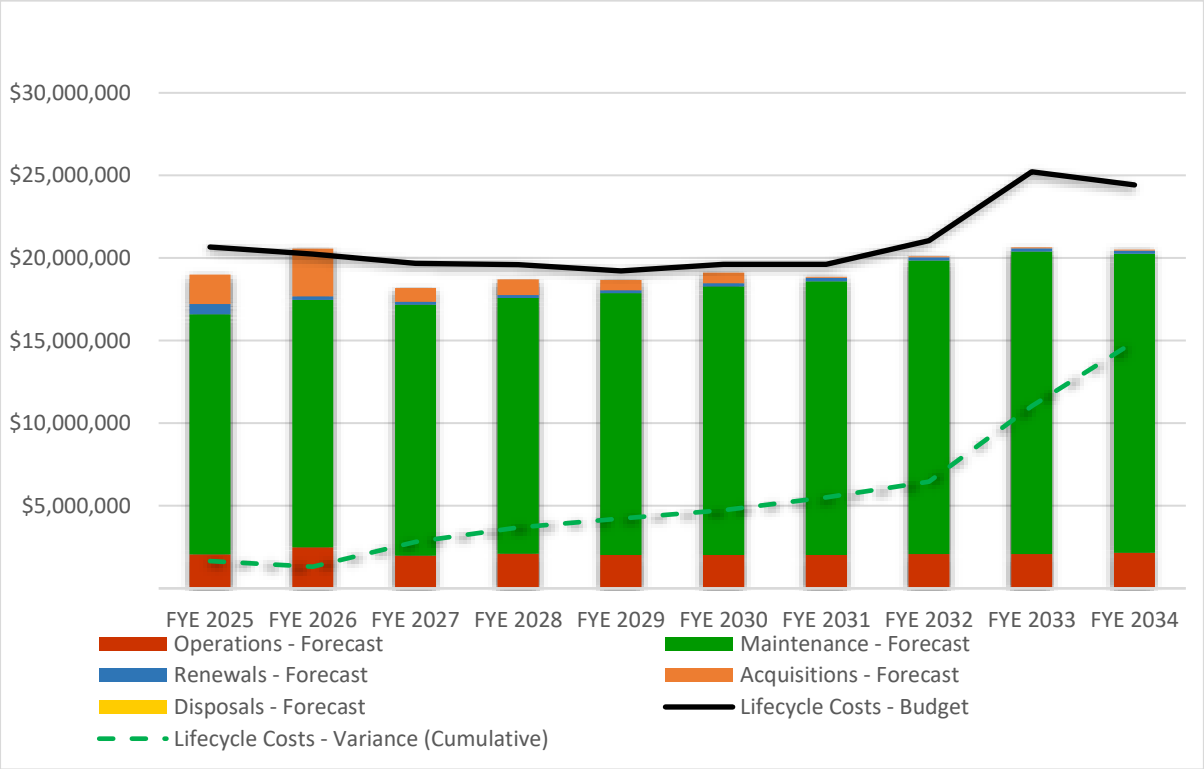
There are no assets identified for disposal within the next ten years.

5.6 Summary of forecast costs

The financial projections from this AMP are shown in Figure 5.6.1. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

The bars in the graph represent the forecast costs needed to optimise the lifecycle management of these assets and ensure alignment with community needs/expectations. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 5.6.1: Lifecycle Summary



All values in graph are adjusted for inflation.

The forecast costs versus budget highlights there is adequate funding for day-to-day operation, maintenance, renewals, acquisition, and disposal activities.

The lifecycle summary graph above shows a large gap between forecast and budget costs in 2033 and 2034, this is attributed to a large Armco Culvert Renewal estimated at nearly $6.9m. This surplus provides sufficient resources to sustain the existing infrastructure and services, ensuring that resource recovery operations run smoothly, assets are well-maintained, and necessary replacements or renewals are carried out as needed. This financial allocation enables the continued functionality and longevity of the resource recovery assets.

Risk Management Planning

The purpose of risk management planning is to identify and address the potential risks and opportunities associated with Council's infrastructure assets. This section defines those assets which are critical to operations and the potential results of failure; the significant (high or extreme) risks being managed including those risks outside of Council's appetite; and considers the resilience of these assets in the context of service delivery.

6.1 Critical Assets

Critical assets are defined as:

"Assets that are significant in providing essential services to our community, and which may also be important in emergency situations. These assets have high consequences of failure, and as such require a higher level of proactive maintenance and management."

NPDC does not currently have a specific methodology for the identification and grading of critical assets. Table 6.1 describes those assets which meet the above definition as determined by the Asset Owner, as well as the mode by which the asset could fail, and the likely impact of that failure. Developing and implementing a specific methodology for determining critical assets is identified as an improvement action in Section 8.

Table 6.1: Critical Assets

Critical Asset(s)	Failure Mode	Impact
Resource Recovery Fleet*	Mechanical breakdown of vehicles	Disruption of regular waste collection, service delays
Rural Refuse Transfer Stations	Equipment malfunction, inadequate capacity	Accumulation of waste, increased operational costs
Landfills	Leachate leakage, gas emissions	Environmental pollution, health hazards
Resource Recovery Facility*	Machinery breakdown, contamination of recyclables	Reduced recycling efficiency, increased landfill use

*Please note the above assets are critical to the activity of Resource Recovery, however the assets are owned by the contractors.

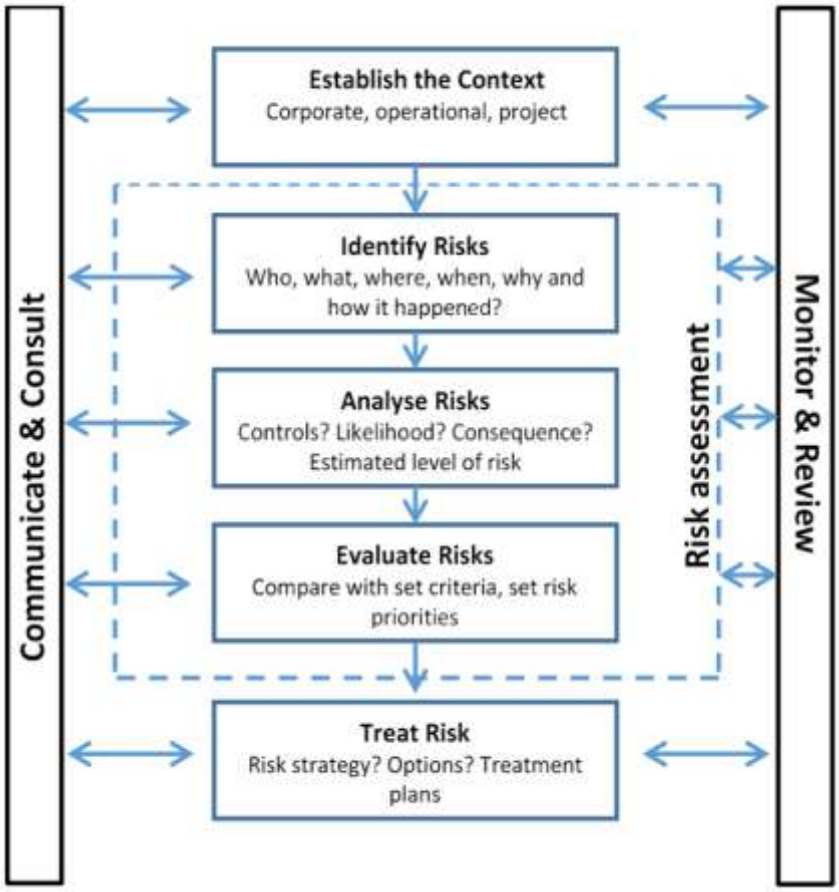
By determining critical assets, operations, maintenance, and renewal strategies can be refined, inspections and investigations can be prioritised, high risk information gaps can be identified, and confidence in programming of works is increased. Critical assets will be prioritised when allocating maintenance and renewal funding, undertaking condition assessments and for improvement works.

6.2 Risk Assessment

Risk is an inherent element of all Council operations, and the management of these risks is a critical element of ensuring the organisation is able to deliver services and meet its obligations. For risk management to be effective, Council has developed and utilises its Corporate Risk Management Framework - Policy and Process (ECM#1479536). This internal document is based on the fundamentals of ISO 31000:2009 (Risk Management) and provides key information and advice for how risk assessments are conducted, recorded, managed, escalated, and monitored.

The five key steps to Council's risk management procedure are establishing the context, risk identification, analysing risk, risk evaluation and risk treatment – as illustrated in Figure 6.2.

Figure 6.2: Risk Management Framework



A summary of the current key risks relevant to the Council's assets is included in the Risks and Improvements Section of the Asset Management Strategy. The list includes risks to the specific assets, risk to service delivery, and risk relating to the overarching asset management system.

6.2.1 High level risks

Identification of high and extreme risks ensures that Council can prepare for situations that may result in negative consequences such as the loss or reduction of a service, injury, financial damage, loss of reputation, damage to the environment and more. Table 6.2.1 lists all high or extreme risks that are relevant to the management of Resource Recovery assets. This may overlap with the generic risks identified in the strategy but will focus on the actions to be taken to address those risks. Prioritisation of the projects relating to these risks occurs in P3M (Council's Projects, Portfolio and Programme management software).

Table 6.2.1: Planned treatments and costs for identified high level risks.

Risk Type	Description	Current risk rating	Proposed Risk treatment actions	Post treatment risk rating	Treatment costs	Relevant projects
Planning and Strategy	Transfer stations no longer meet the objectives of the Waste Plan and require upgrades to meet future demand from population growth and diversion of waste to new markets.	High	Evaluate and implement upgrades to transfer stations. Assess population growth projections and waste diversion strategies.	Moderate	$500,000	Rural Transfer Station Upgrades
Planning and Strategy	Limited information on asset data means we are unable to assess the condition of our assets, and plan for future renewals and maintenance.	High	Implement a comprehensive asset data collection system. Develop a maintenance and renewal plan based on asset condition assessments.	Moderate	$200,000	Asset Management and Planning
Property and assets	The temporary Junction building structure may no longer be fit for purpose.	High	Conduct a structural assessment of the Junction building. Consider renovations or replacement based on the assessment results.	Low	$200,000	Junction Building
Operations and service delivery	Contractors failing to maintain assets dedicated to Council services resulting in impacts to service delivery.	Extreme	Strengthen contractor oversight mechanisms. Audit contingency plans.	Moderate	$50,000	Council Services Infrastructure Maintenance

Note: Current risk is the risk at the point in time this AMP is published, it is not reflective of the full untreated (inherent) risk. The post-treatment risk is the residual risk once the proposed treatments have been implemented.

6.2.2 Risks outside of Council's appetite

It is not always possible to remove all risks. For a treatment to be considered effective the residual risk must be within NPDC's risk appetite. NPDC's risk appetite varies depending on the Risk Category:

- Averse means generally avoiding or eliminating a risk because of its potential impact on Council's service delivery (e.g. disruption to drinking water supply) and/or the health and safety of our staff or the public.
- Balanced means having a flexible approach depending on the nature of the risk, weighing the consequence of not achieving an objective if the risk is avoided or eliminated with the cost of implementing controls.
- Tolerant means being willing to take on significant risks to exploit opportunities associated with activities that support the achievement of Council's strategic goals, despite potentially major consequences if a risk is realised.

There are currently no risks outside councils' appetite.

6.3 Resilience

The New Zealand Infrastructure Strategy/Rautaki Hanganga o Aotearoa describes resilience as "*the ability to anticipate and resist the effects of a disruptive event, minimise adverse impacts, respond effectively post-event, maintain or recover functionality, and adapt in a way that allows for learning and thriving*."

Resilience differs from risk management as it is focused on management of events that are either unpredictable or have a very low likelihood of occurring, but which have high consequences. In addition, these events are typically complex with multiple interdependencies and therefore have added complexity. This includes events such as natural disasters, economic crises, significant infrastructure failure, cyber-attacks, global conflict, terrorism, and climate change.

Improving the resilience of our assets and adapting to climate change are key drivers for Infrastructure management at NPDC. Table 6.3 describes how Council is ensuring resilience and reliable delivery of our Resource Recovery assets.

Table 6.3: Resilience of Resource Recovery assets

Event	Key points of failure	Redundancies	Interdependencies	Actions	Related Projects
Natural disaster	Facility damage or inaccessibility	• Backup facilities • Disaster preparedness plan	Accessibility of roads and transportation	Implement disaster recovery plan, identify backup facilities	Conduct facility vulnerability assessment, establish evacuation protocols.
Equipment Failure	Essential equipment malfunction	• Spare parts inventory • Maintenance schedules	Reliance on specific machinery	Implement regular maintenance, stock critical parts	Establish equipment maintenance programme.
Supply Chain Disruption	Lack of essential resources	• Diversification of suppliers • Safety Stock	Dependence on single suppliers	Identify alternative suppliers, maintain safety stock	Establish supplier diversification strategy
Human Error	Operational mistakes or oversights	• Training • Standard Operating Procedures	Reliance on specific individuals	Implement training programs, establish clear procedures	Develop cross-training initiatives
Cybersecurity Breach	Data loss, system compromise	• Firewalls • Encryptions • Regular Security Audits	Reliance on digital systems	Implement robust cybersecurity measures	Establish a cybersecurity protocol.

6.4 Service and Risk Trade-offs

The decisions made during the preparation of the LTP are initially guided by the first draft of this AMP and are later reflected in the final iteration. The goal is to ensure that the optimum benefits are received from the available resources, then capture where Council will be unable to achieve all the intended outcomes.

Resource Recovery has sufficient budget to meet levels of service and mitigate risk, therefore there are currently no service or risk trade-offs.

Financial Summary

This section seeks to describe the financial requirements resulting from the information presented in the previous sections of this AMP. Financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial strategy

Council's financial strategy and accounting policies are documented in the Financial Information section of the LTP. This financial strategy determines how funding will be provided, whereas the AMP communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.2 Financial Sustainability & Projections

7.2.1 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in this AMP, they include the asset renewal funding ratio (ARFR), and the current asset funding indicator (CAFI)

Asset Renewal Funding Ratio

The Asset Renewal Funding Ratio (ARFR) is an important indicator that provides context for Council's planned renewals.

$$\text{ARFR (\%)} = \frac{\text{Proposed renewal budget for 10-year period}}{\text{Forecast renewal costs for 10-year period}} \times 100$$

The calculation is shown in Table 7.2.1.1.

Table 7.2.1.1: Renewal forecast

Indicator	Value
10-year renewal budget	$9,221,291
10-year renewal forecast	$2,348,395
Asset Renewal Funding Ratio	392.7%

This information illustrates that over the ten-year timeframe of this AMP, Council expects to have 392.7% of the funds required for the optimal renewal of assets. The reason for the large ARFR is due to a $6.9m large diameter culvert renewal in year 9 and 10.

$$\text{CAFI (\%)} = \frac{\text{Proposed operation, maintenance \& renewal budget for 10-yr period}}{\text{Forecast operation, maintenance, and renewal costs for 10-yr period}} \times 100$$

Current Asset Funding Indicator

The Current Asset Funding Indicator (CAFI) identifies the capacity of the organisation to fund the ongoing operations, maintenance, and renewal of the existing asset portfolio in a sustainable manner.

This calculation is shown in Table 7.2.1.2.

Table 7.2.1.2: Existing asset funding sustainability

Indicator	Value
10-year proposed budget for existing assets	$199,647,830
10-year forecast costs for existing assets (operations, maintenance & renewals)	$186,392,276
Average annual funding gap	$1,325,555
Current Asset Funding Indicator	107.1%

The CAFI shows that over the timeframe of the AMP there is a funding surplus in which 107.1% of the forecast costs required to provide the services documented in this AMP are accommodated in the proposed budget. Note: these calculations exclude acquired assets.

7.2.2 Forecast costs for the Long-Term Plan

Table 7.2.2 shows the expenditure forecast summary (outlays) required for consideration in the LTP.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels and the planned budget allocations in the LTP.

A financial gap' between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AMP (including possibly revising the LTP).

We will manage this financial gap by developing this AMP to provide guidance on future service levels, and resources required to provide these services in consultation with the community.

Forecast costs are shown in FY24/25 dollar values.

Table 7.2.2: Expenditure forecast summary

Activity	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	LTP Total
Operations	$2.05M	$2.49M	$1.97M	$2.09M	$2.03M	$2.03M	$2.01M	$2.09M	$2.07M	$2.16M	**$21.00M**
Maintenance	$14.54M	$14.97M	$15.20M	$15.49M	$15.85M	$16.25M	$16.58M	$17.76M	$18.32M	$18.09M	**$163.05M**
Total Opex	**$16.59M**	**$17.47M**	**$17.17M**	**$17.58M**	**$17.87M**	**$18.28M**	**$18.60M**	**$19.85M**	**$20.39M**	**$20.25M**	**$184.04M**
Level of Service	$1.80M	$2.89M	$0.83M	$0.96M	$0.62M	$0.64M	$0.06M	$0.06M	$0.06M	$0.07M	**$8.00M**
Growth											
Renewals	$0.62M	$0.22M	$0.18M	$0.17M	$0.18M	$0.20M	$0.20M	$0.20M	$0.19M	$0.20M	**$2.35M**
Total Capex	**$2.42M**	**$3.11M**	**$1.01M**	**$1.13M**	**$0.80M**	**$0.84M**	**$0.26M**	**$0.26M**	**$0.26M**	**$0.27M**	**$10.35M**

The methods currently used to by NPDC to prepare financial forecasts do not provide a straight-forward breakdown into the Asset Management lifecycle stages of acquisition, operation, maintenance, renewal, or disposal. Table 7.2.2 can be aligned with the lifecycle stages by reading as follows:

- asset acquisitions are indicated by LoS and Growth activities totals (above 'Total Capex'),
- asset renewals are captured under the Renewals activity heading,
- operations and maintenance costs are collectively provided as 'Total Opex' with no individual breakdown currently available.

An improvement action has been identified to improve forecast definition in the AMP including providing separate operations, preventative, and reactive maintenance forecasts.

7.3 Valuation Forecasts

7.3.1Asset valuations

The best available estimate of the value of assets included in this AMP is shown below. Council's asset valuation methodology is described in the Statement of Accounting Policies included in the Financial Information section of the LTP.

Table 7.3.1 Asset valuations as of 30 June 2022

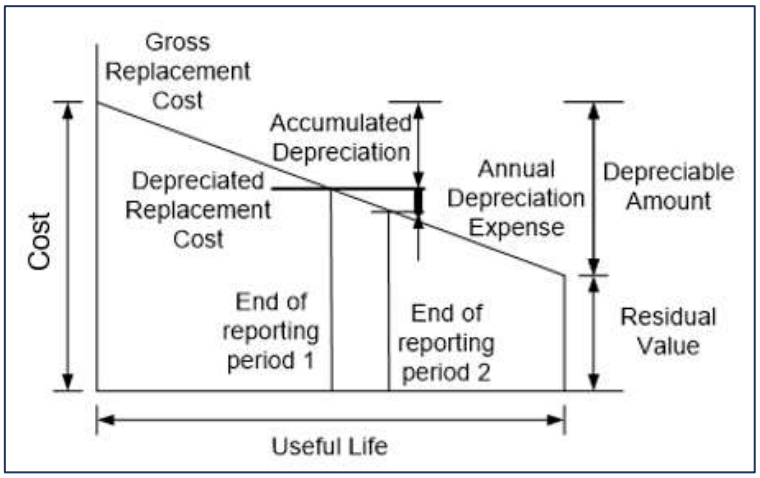
Measure	Value
Gross Current Replacement Cost	$6,318,450
Depreciated Replacement Cost[1]	$4,622,715
Annual Depreciation	$567,515

[1] Also reported as Written Down Value, Carrying or Net Book Value.

Please note there is slight variance between the Replacement Cost specified in section 5.1.3, this is due to variance in timing between formal valuation.

Figure 7.3.1 provides a graphical comparison of the values given above.

Figure 7.3.1: Understanding valuation and depreciation values.



7.3.2Valuation forecast

Total asset portfolio value is forecast to slightly increase over the 10-year term of this AMP as additional assets are added to service. Additional assets will generally result in increased costs due to:

- operations and maintenance needs
- future renewal costs
- future depreciation forecasts

7.4 Key Assumptions

In compiling this AMP, it was necessary to make some assumptions. This section details the key assumptions made and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AMP are:

- Asset valuations primarily based upon sale price of an asset reflect an accurate assessment of the replacement cost.
- Costs relating to lifecycle forecasts are based on engineering judgement that is assumed to be correct/ accurate.
- All costs for future work programmes, project works, and future asset acquisitions are based on best judgement of Council staff, utilising available cost estimation tools.
- Growth Data is based on current regional growth rates.
- Kerbside Collection Bins are fit for purpose and therefore in ‘Good’ condition.

7.5 Forecast Reliability & Confidence

The forecast costs, proposed budgets, and valuation projections in this AMP are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on an A–E level scale in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations, and analysis, documented properly, and agreed as the best method of assessment. Dataset is complete and estimated to be accurate (i.e. accuracy level ±2%)
B. High	Data based on sound records, procedures, investigations, and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate (i.e. accuracy level ±10%)
C. Medium	Data based on sound records, procedures, investigations, and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated (i.e. accuracy level ±25%)
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. (i.e. accuracy level ±40%)
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AMP is shown in Table 7.5.2.

Table 7.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	Medium	Uncertainty in forecasts arises due to the potential for change within national and global economies and politics and the occurrence of natural events and disasters which all impact long-term forecast reliability.
Growth projections	High	There is generally high confidence in expected changes in population and demographics in the area however lower confidence in likely immigration and tourism forecasts are noted due to international instability.
Acquisition forecast	Medium	Acquisition will predominantly come from assets derived from augmentation projects which is documented in P3M along with new bins required in Growth Areas as per the District Plan.
Operation forecast	Medium	Operational costs well understood based on historic financial data.
Maintenance forecast	Low	Further work required to complete asset data base to understand required level of maintenance
Renewal forecast - Asset values	High	Based on valuation data from consultant
- Asset useful lives	High	Based on valuation data from consultant
- Condition modelling	Low	No modelling currently used
Disposal forecast	High	No disposals required

The overall estimated confidence level for reliability of data used in this AMP is C. Medium.

Improvement & Monitoring

This section provides information about improvement and monitoring of the asset management system and processes at Council.

8.1 Asset Management Maturity

NPDC undertook an asset management maturity assessment across the entire Council asset management system in March 2021. An overview of this review is provided in the 2022 Asset Management Strategy (ECM# 7819335). Council is working toward a maturity rating of 3 (Competent) and currently has an average rating of 2 (Developing). Current focus areas for increasing Council's asset management maturity include:

- Increasing process documentation: to provide consistency and minimise knowledge loss during change,
- Implementing management reviews: to enhance overall visibility of activities and more closely track performance,
- Introducing spot checks: to ensure documented processes are aligned to reality.

8.2 Improvement Plan

The following table lists the areas of this AMP that can be improved upon through the development and implementation of improved processes or methodologies, behaviours, and tools. Implementation of these actions will enhance operational efficiency and effectiveness and improve overall asset management maturity.

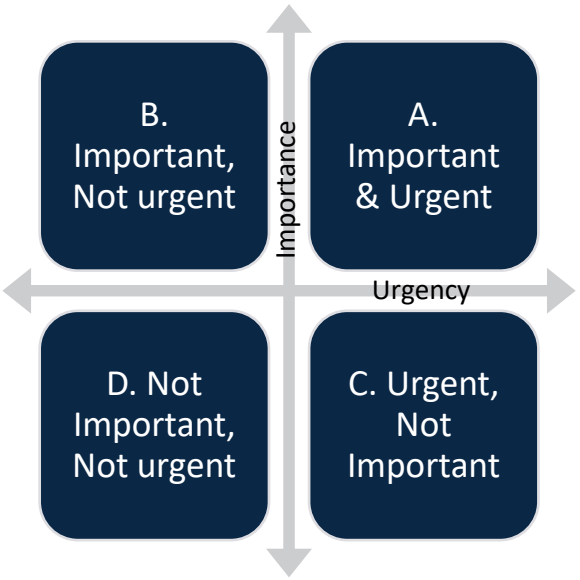
Table 8.2.1: Improvement Plan

Activity	Task	Priority	Accountable	Responsible	Resources Required	Due date
Data collection	Carry out asset data capture of existing Resource Recovery assets in time for the next valuation along with condition assessments	A	Service Owner	Infrastructure Activity Management Lead	BAU collaboration between Asset Data and RR Operations team	Feb 2025
Landfill Monitoring	Develop a monitoring programme of historic landfills to understand	B	Service Owner	Resource Recovery Lead	BAU	Dec 2024

	progression of coastal or fluvial erosion					
Lifecycle Management	Develop and implement a process for lifecycle costing	B	Asset owner	Resource Recovery Lead	Collaboration between Asset Data and RR Operations	Dec 2024
Asset Criticality	Carry out asset criticality assessment	B	Asset Owner	Asset Data Lead	Collaboration between Asset Data and RR Operations	Dec 2025
Asset Hierarchy	The current asset hierarchy in Tech1 is not meaningful and doesn't drive good Asset Management decision making. With the future project to replace Tech1, this is an opportune time to reassess the asset hierarchy	B	Asset Owner	Resource Recovery Lead	Collaboration between Asset Data and RR Operations	Dec 2025
Environmental Sustainability engagement and inclusion	Ensure that Environmental Sustainability Policy settings are incorporated into all actions and commitments indicated within LTP and AMP	B	Asset Owner	Resource Recovery Lead	Collaboration between Policy Team and RR Operations	Ongoing/BAU

Note: Action priority is set using the Eisenhower matrix as a model, with the highest priority works graded as A and lowest priority works graded as D.

Figure 8.2.1: Eisenhower matrix



8.3 Monitoring & Review Procedures

This AMP will be reviewed and updated annually as part of wider Council annual planning process. These annual reviews will ensure the AMP continues to accurately communicate the current service levels, asset values, forecast costs and planned budgets.

Every three years the AMP will be completely revised to reflect the adjustments to the organisational strategic direction that result from the triennial election of Council's elected members. The AMP review is also aligned to the LTP process for which the AMP is essential supporting information and, as such, these AMPs will be made available for the LTP audit in their draft form. The draft AMP will capture the best-case scenario for management of the assets aligned to anticipated budgets. The final version will reflect the decisions made by elected members including where service levels are expected to be impacted by the availability of funds.

8.4 Performance Measures

The effectiveness of Council's AMPs is monitored through regular internal spot-checks conducted multiple times throughout the year by this asset group's senior management team. The internal spot-checks will assess the extent to which the actions defined within the plan have been implemented, act as a feedback mechanism for senior management, and consider the following:

- Accuracy of forecast costs and alignment to the LTP,
- Alignment to the Asset Management Strategy and other key strategic documents,
- Completion rate of forecast works including renewals, acquisitions, essential maintenance, condition assessments and improvement or risk management activities,
- Inclusion of key risk and improvement actions within the relevant Council systems and the completion of corrective actions in a timely manner,
- Completeness of information,
- Other relevant topics identified at the time of the check.

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Glossary

Term/ Phrase/ Acronym	Definition
Acquisition	Those activities involved in the creation/ purchase/ donation or otherwise gain of new or upgraded assets.
AMIS	Asset Management Information System
AMP	Asset Management Plan
AS/NZS	Australian/New Zealand Standards
Asset	An item, thing or entity that has potential or actual value to NPDC (such as plant, machinery, buildings, roads, etc)
Asset lifecycle	Describes the activities/ actions relating to an asset from initial planning and acquisition, through operation and maintenance of the asset, then disposal at 'end-of-life.' Many assets are not disposed of but are renewed and their condition and performance reset to 'as new.'
Asset Owner	The person at Council who is accountable for Managing the specific asset group. This is generally the Functional Manager of the relevant area (e.g., Manager Transport)
Asset register	The record of asset information including asset attribute data such as quantity, type, construction cost and value.
AM Strategy	Internal strategy to provide direction regarding how to manage Infrastructure and Property assets.
Augmentation	The activities that provide a higher level of service or a new service that did not exist previously.
CBD	Central Business District
CCO	Council Controlled Organisation
CDEM	Civil Defence and Emergency Management
Council	Refers to New Plymouth District Council specifically
Customer	Customer in this document is used to describe anyone who uses the products or services provided by Council assets or who has a vested interest in those assets. This includes ratepayers, local community groups and businesses, local iwi and hapū, regulators or statutory bodies and visitors to the region.

Term/ Phrase/ Acronym	Definition
Current day dollars	The dollar amount required to undertake a task/activity if it was to be completed today. Potential future inflation is not included in these figures.
Demand	A driver or pressure that has the potential to change the requirements/ expectations of Council's assets.
Disposal	Any activities associated with the disposal of a decommissioned asset. This includes the sale, demolition, or the relocation of the asset.
EAM	TechOne Enterprise Asset Management – Council's asset register software. Manages financial information, customer information and requests, asset registers and history, work order management and maintenance scheduling.
ECM	Enterprise Content Management - manages documentation and records.
ELT	Executive Leadership Team
GCRC	Gross Capital Replacement Cost
GIS	Geographic Information System
IIMM	International Infrastructure Management Manual
Infrastructure Strategy	A document that must be prepared as part of the LTP (required by the LGA). This document identifies significant infrastructure issues and potential options for their management for a 30year period.
IPWEA	Institute of Public Works Engineering Australasia
ISO 55001	International Standard for Asset Management – Management System requirements.
LGA	Local Government Act 2002
LoS	Level of Service - a statement by Council that clearly identifies what it intends to deliver in terms of providing local infrastructure, public services, and regulatory functions
LTP	Long-Term Plan
Maintenance	Those actions necessary to keep the asset as near as practicable to an appropriate service condition including regular, ongoing day-to-day work necessary to keep assets operating.
MfE	Ministry for the Environment
NPDC	New Plymouth District Council
NZD	New Zealand Dollar

Term/ Phrase/ Acronym	Definition
Operations	Those regular activities required to provide a service. Examples of typical operational activities / costs that would be charged here include monitoring inputs and outputs, cleaning, security, insurance, inspection, and utility costs.
Performance measure	The means by which Council measures achievement of its level of service statements.
Pinnacle	NPDC's health, safety, risk, environment, and quality (HSREQ) management software.
Ratepayer	Residents, property owners and businesses who pay rates to NPDC.
Renewals	Those activities that restore, rehabilitate, replace, or renew existing assets back to the original or 'as new' standard.
Replacement	The complete replacement of an asset that has reached the end of its life, to provide a similar, or agreed alternative level of service.
Research First	The organisation responsible for undertaking the independent community survey
Risk appetite	The amount and type of risk that the Council is prepared to accept in the pursuit of its objectives.
Risk management	The coordinated activities to direct and control an organisation with regard to risk.
Risk treatment	Proposed or agreed method for fixing or reducing a risk that Council is currently exposed to.
RUL	Remaining Useful Life – the amount of time remaining before the asset condition or performance will no longer be capable of meeting required levels of service and must be renewed or disposed of.
TechOne / Tech1 / T1	Council's EAM and ECM system provider.
TRC	Taranaki Regional Council
WMMP	Waste Minimisation and Management Plan

Appendices

Appendix 1 – Legislation & Regulations

The following is a list of all relevant legislation and regulations relating to the Resource Recovery service.

If this Appendix is blank, then refer to Section 3.3

Appendix 2 – Project Prioritisation Matrix

SCORE	**Criteria 1 – Strategic Alignment** *How well does this opportunity contribute to the delivery of our goal, vision & strategies?*	**Criteria 2 –Benefits** *What benefits (efficiency, innovation, social or economic) will the community gain from this opportunity?*	**Criteria 3 – Level of Services** *How does this project Impact our level of service?*	**Criteria 4 – Risk Mitigation** *How does this project mitigate overall risk profile?*	**Criteria 5 – Ease of Execution** *How easy is this project to execute? Any quick wins?*
Weight	***35%***	***20%***	***15%***	***15%***	***15%***
5	• Contributes to all community outcomes or corporate goals OR required to achieve one outcome / goal. • Critical community demand (>80%) via pre-consultation	• Significantly improve delivery efficiency, digital interaction, or innovation (impact more than 75% ratepayers or employees) • Significant measurable benefits to local economy • Significant measurable social benefits • Cost Benefit Ratio (CBR) > 3 • 100% externally funded (including most internal costs), with a CBR>1	Addresses failure to meet existing stated levels of service	NPDC or the community is exposed to very high risks (*) (*) as per NPDC risk framework	Business As Usual activity, already scoped and well defined, easy to implement (Tier 5)
4	• Contributes to three community outcomes or corporate goals OR very strong contribution to one outcome / goal. • Enabler to an approved Council strategy, policy, or framework • Key community Demand (>60%) • Support delivery of cultural narrative and partnership with Tangata Whenua • Included in community board plan	• Significantly improve delivery efficiency, digital interaction, or innovation (impact more than 50% ratepayers or employees) • Some benefits to local economy • Some social benefits • Cost Benefit Ratio (CBR) > 2 • Attract external funding contributing to more than 80% of project costs	Maintains existing levels of service	NPDC or the community is exposed to high risks (*)	Very low complexity project - typically Tier4, Roadmap 0

3	• Contributes to two community outcomes or corporate goals OR strong contribution to one outcome / goal. • Contribution to an approved Council strategy, policy, or framework • Important community Demand (>40%)	• Improve delivery efficiency, digital interaction, or innovation (impact more than 35% ratepayers or employees) • Cost Benefit Ratio (CBR) > 1 • Attract external funding contributing to more than 60% of project costs	• Increases level of service: - across the district - to support bringing community together - to support vulnerable part of the community	NPDC or the community is exposed to medium risks (*)	Low complexity project - typically Tier 3, Roadmap 1
2	Contributes to one community outcomes or one corporate goal.	• Some improvement to delivery efficiency, digital interaction, or innovation • Attract external funding contributing to less than 60 % of project costs	Increases level of service for part of the community	NPDC or the community is exposed to low risks (*)	Medium complexity project – typically Tier 2, Roadmap 2
1	No contribution to community outcomes or corporate goals	• Do not attract external funding. • No social or economic benefits	No impact on level of services	NPDC or the community is exposed to very low risks (*)	High complexity project - typically Tier 1, Roadmap 3

Appendix 3 – Alignment between AMP templates

There were quite significant modifications made between the 2021 Asset Management Plans and these 2024 Asset Management Plans. The below colour coded list shows where the information can be found in the old template. Bold colours represent major sections, lighter tints represent subsections. Section headers 3 tiers and below have been removed.

A large amount of the more detailed content has been moved into the Appendices where it is visible but does not disrupt the flow of the overall plan for the reader. Sections without a colour tag are new or sufficiently different that there is no equivalent in the old template.

2021 AMP Contents		2024 AMP Contents	
1	Executive Summary	1	Executive Summary
2	Introduction	2	Introduction
2.1	Asset Descriptions	2.1	Background
2.2	Asset Information and Data	2.2	Asset management planning
3	Strategic Framework	3	Levels of Service
3.1	Strategic Alignment	3.1	Customer research
3.2	Key Issues	3.2	Strategic and corporate goals
3.3	Statutory and Regulatory requirements	3.3	Legislative requirements
4	Levels of Service	3.4	Customer values
4.1	Customer Levels of Service	3.5	Levels of Service
4.2	Technical Levels of Service	4	Future demand
4.3	Level of Service Projects	4.1	Demand drivers
5	Future Demand	4.2	Demand forecasts
5.1	Growth Projects	4.3	Demand impact and management plan
6	Lifecycle	4.4	Asset programmes to meet demand
6.1	Identify need and plan	4.5	Climate change adaptation
6.2	Design and Build	5	Lifecycle management plan
6.3	Operations and Maintenance	5.1	Background data
6.4	Renewals	5.2	Operations and maintenance plan
6.5	Disposals	5.3	Renewal plan
7	Risk management	5.4	Acquisition plan
7.1	Risk assessment	5.5	Disposal plan
7.2	Infrastructure resilience approach	5.6	Summary of forecast costs
8	Financial summary	6	Risk management planning
8.1	Funding strategy	6.1	Critical assets
8.2	Valuation forecasts	6.2	Risk assessment
8.3	Expenditure forecast summary for opex and capex	6.3	Resilience
8.4	Level of service project capex expenditure forecast summary	6.4	Service and risk trade-offs
8.5	Growth project capex expenditure forecast summary	7	Financial summary
8.6	Opex projects related to capex projects expenditure forecast summary	7.1	Financial sustainability and projections
8.7	Opex project expenditure forecast summary	7.2	Funding strategy

8.8	Renewals capex project expenditure forecast	7.3	Valuation forecasts
9	Improvement plan	7.4	Key assumptions
9.1	Asset management maturity	7.5	Forecast reliability and confidence
9.2	Improvement plan	8	Improvement & Monitoring
10	Glossary	8.1	Asset management maturity
		8.2	Improvement plan
		8.3	Monitoring & review procedures
		8.4	Performance measures
		9	References
		10	Appendices

Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

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Approved by:	General Manager Operational Excellence	**Date approved:**	30 April 2025
Review period:	3 years	**Next review:**	30 June 2026
Document No:	ECM: 9496407	**Version:**	Final
Type:	Asset Management Plan		

REVISIONS

Version	Description	Written by	Revision date	Peer Reviewer(s)	Approver	Approval Date	Issue date
Draft	New document	K. Butterworth	Feb 2023 – Apr 2025	A. Humphrey, M. Coronno	Sarah Downs	30 April 2025	30 April 2025