



KAWERAU DISTRICT COUNCIL

Te Kaunihera ā rohe o Kawerau

TAONGA O TE WHENUA - TREASURE OF THE LAND

**The Meeting of the
Audit and Risk Committee will be
held on Monday 7 April 2025
commencing at 1.00pm**

A G E N D A

AUDIT AND RISK COMMITTEE

Her Worship the Mayor – F K N Tunui

Councillor C J Ion

Councillor A Rangihika

Councillor B J Julian

Philip Jones – Consultant - P J Associates (Chair)

KAWERAU DISTRICT COUNCIL

**The Meeting of the Audit and Risk Committee
will be held on Monday 7 April 2025
commencing at 1.00pm**

AGENDA

1 Karakia Timatanga | Opening Prayer

2 Apologies

3 Declarations of Conflict of Interest

Any member having a “conflict of interest” with an item on the Agenda should declare it, and when that item is being considered, abstain from any discussion or voting. The member may wish to remove themselves from the meeting while the item is being considered.

4 CONFIRMATION OF AUDIT AND RISK COMMITTEE MINUTES

4.1 Audit and Risk Committee – 10 February 2025

Pgs. 1 - 4

Recommendation

That the minutes of the Audit and Risk Committee Meeting held on 10 February 2025 be confirmed as a true and accurate record.

5 Health, Safety and Wellbeing Report for period – 1 February 2025 to 31 March 2025 (Group Manager, Regulatory and Planning) (509500)

Pgs. 5 - 12

Attached is the report from the Group Manager, Regulatory and Planning covering Health, Safety and Wellbeing Report for period – 1 February 2025 to 31 March 2025.

Recommendation

That the report “Health, Safety and Wellbeing Report for period – 1 February 2025 to 31 March 2025” be received.

6 Treasury Report to 31 January 2025 and 28 February 2025 (Group Manager, Finance and Corporate Services) (110551)

Pgs. 13 - 17

Attached is the report from the Group Manager, Finance and Corporate Services covering Treasury Report to 31 January 2025 and 28 February 2025.

Recommendation

That the report “Treasury Report to 31 January 2025 and 28 February 2025” be received.

7 Long Term Plan 2025 – 2034 Update (Group Manager, Finance and Corporate Services) (110555)

Pgs. 18 - 21

Attached is the report from the Group Manager, Finance and Corporate Services covering Long Term Plan 2025 – 2034 Update.

Recommendation

That the report “Long Term Plan 2025 – 2034 Update” be received.

8 Audit and Risk Review Timetable from April 2025 to February 2026 (Group Manager, Finance and Corporate Services) (101300)

Pgs. 22 - 24

Attached is the report from the Group Manager, Finance and Corporate Services covering Audit and Risk Review Timetable from April 2025 to February 2026.

Recommendation

That the report “Audit and Risk Review Timetable from April 2025 to February 2026” be received.

9 Update on Audit Management for the year ended 30 June 2024 (Group Manager, Finance and Corporate Services) (201000)

Pgs. 25 - 28

Attached is the report from the Group Manager, Finance and Corporate Services covering Update on Audit Management for the year ended 30 June 2024.

Recommendation

That the report “Update on Audit Management for the year ended 30 June 2024” be received.

10 Local Water Done Well – risk profile for 2025 (Chief Executive Officer) (404000)

Pgs. 29 - 33

Attached is the report from the Chief Executive Officer covering Local Water Done Well – risk profile for 2025

Recommendation

That the report “Local Water Done Well – risk profile for 2025” be received.

11 Review of Council’s Asset Management Plans (Group Manager, Operations and Services) (110551)

Pgs. 34 - 214

Attached is the report from the Group Manager, Operations and Services covering Review of Council’s Asset Management Plans.

Recommendation

1. *That the report “Review of Council’s Asset Management Plans” be received.*
2. *That the Audit & Risk Committee review and recommend any changes to the Asset Management Plans.*

12 Key Underlying Documents for Long Term Plan 2025 – 2034 (Group Manager, Finance and Corporate Services) (110553)

Pgs. 215 - 272

Attached is the report from the Group Manager, Finance and Corporate Services covering Key Underlying Documents for Long Term Plan 2025 – 2034.

Recommendation

That the report “Key Underlying Documents for Long Term Plan 2025 – 2034” be received.

13 Karakia Whakamutunga | Closing Prayer

M Godfery

Chief Executive Officer

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**Kawerau District Council Minutes of an
Audit and Risk Committee held on 10 February 2025
commencing at 1.00pm**

Present: Philip Jones – P J Associates (Chair)
Her Worship the Mayor – F K N Tunui
Deputy Mayor – A Rangihika
Councillor C Ion
Councillor B J Julian

In Attendance: Chief Executive Officer (M Godfery)
Group Manager, Finance and Corporate Services (L Butler)
Group Manager, Regulatory and Planning (M Glaspey)
Group Manager, Operations and Services (R Nel)
Administration Officer (L Kerei)

This meeting was an audio recording only due to technical issues.

Karakia Timatanga | Opening Prayer

Chief Executive Officer Godfery opened the meeting with a prayer.

Apologies

No Apologies were received.

Declarations of Conflict of Interest

No Conflicts of Interest were received.

1 CONFIRMATION OF AUDIT AND RISK COMMITTEE MINUTES

1.1 Audit and Risk Committee – 9 December 2024

Resolved

That the minutes of the Audit and Risk Committee Meeting held on 9 December 2024 be confirmed as a true and accurate record.

**Councillor Ion / Deputy Mayor Rangihika
CARRIED**

2 Kawerau District Council Risk Profile 2025 (Chief Executive Officer) (105000)

Committee discussed the report from the Chief Executive Officer covering Kawerau District Council Risk Profile 2025.

Resolved

That the report “Kawerau District Council Risk Profile 2025” be received.

**Councillor Julian / Chair Jones
CARRIED**

3 Health, Safety and Wellbeing Report for period – 1 November 2024 to 31 January 2025 (Group Manager, Regulatory and Planning) (509500)

Committee discussed the report from the Group Manager, Regulatory and Planning covering Health, Safety and Wellbeing Report for period – 1 November 2024 to 31 January 2025.

Action item:

To have a reminder about pool safety at the Maurie Kjar Aquatics Centre put into the Community Newsletter.

Resolved

That the report “Health, Safety and Wellbeing Report for period – 1 November 2024 to 31 January 2025” be received.

**Her Worship the Mayor / Councillor Ion
CARRIED**

4 Treasury Report to 30 November 2024 to 31 December 2024 (Group Manager, Finance and Corporate Services) (110551)

Committee discussed the report from the Group Manager, Finance and Corporate Services covering Treasury Report to 30 November 2024 to 31 December 2024.

Resolved

That the report “Treasury Report to 30 November 2024 to 31 December 2024” be received.

**Councillor Julian / Deputy Mayor Rangihika
CARRIED**

5 Long Term Plan 2025 – 2034 Update (Group Manager, Finance and Corporate Services) (110555)

Committee discussed the report from the Group Manager, Finance and Corporate Services covering Long Term Plan 2025 – 2034 Update.

Update from Group Manager, Finance and Corporate Services:

Page 32 – Audit of LTP Statement of Proposal – Completion dates – Change from 06/03/2025 to 24/02/2025.

Action item:

The Committee suggested to include in the Prospective Statement of Accounting Policies borrowing notes as a financial asset.

Resolved

That the report “Long Term Plan 2025 – 2034 Update” be received.

**Her Worship the Mayor / Councillor Ion
CARRIED**

6 Audit and Risk Review Timetable from February 2025 to December 2025 (Group Manager, Finance and Corporate Services) (101300)

Committee discussed the report from the Group Manager, Finance and Corporate Services covering Audit and Risk Review Timetable from February 2025 to December 2025.

Action item:

- The Chair with the support of the Committee agreed to remove the “Performance report to 31 December 2024” from the Audit and Risk Committee Meetings and Review Schedule, on page 44.
- It was requested that a progress report on the Audit Management report with recommendation points to be added to the Schedule.

Resolved

That the report “Audit and Risk Review Timetable from February 2025 to December 2025” be received as amended.

**Her Worship the Mayor / Deputy Mayor Rangihika
CARRIED**

7 Review of Council’s Fraud and Corruption Risk Assessment (Group Manager, Finance and Corporate Services) (201300)

Committee discussed the report from the Group Manager, Finance and Corporate Services covering Review of Council’s Fraud and Corruption Risk Assessment.

Resolved

That the report “Review of Council’s Fraud and Corruption Risk Assessment” be received.

**Chair Jones / Her Worship the Mayor
CARRIED**

8 Council Bylaw and Policy Review Update (Group Manager, Regulatory and Planning) (320000 & 110800)

Committee discussed the report from the Group Manager, Regulatory and Planning covering Council Bylaw and Policy Review Update.

Resolved

That the report “Council Bylaw and Policy Review Update” be received.

9 **Insurance Policies Update (Group Manager, Finance and Corporate Services)
(201000)**

Committee discussed the report from the Group Manager, Finance and Corporate Services covering Insurance Policies Update.

Resolved

That the report "Insurance Policies Update" be received.

**Councillors Ion / Julian
CARRIED**

Karakia Whakamutunga | Closing Prayer

Chief Executive Officer Godfery closed the meeting with a karakia | prayer at 2.34pm

P Jones

Chairperson

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Meeting: Audit and Risk Committee

Meeting Date: 7 April 2025

Subject: **Health, Safety and Wellbeing Report for period – 1 February 2025 to 31 March 2025**

File No: 509500

1 Purpose

This report provides a summary of the activities Kawerau District Council undertakes to meet the requirements of the Health and Safety at Work Act 2015 and our efforts to ensure everyone goes home healthy and safe.

2 Executive Summary

The core systems and controls in place to manage Council's health, safety and wellbeing risks include:

- Ensuring Elected Members and all Council Staff are aware of their specific and general duties under current Health and safety legislation, through inductions and training.
- Development of a health and safety culture that encourages the identification, reporting and mitigation of new and existing health, safety and wellbeing risks, with ongoing risk monitoring and reviews.
- Dedicated Health and Safety Officer engaged to monitor compliance with health and safety legislation, driving continuous improvement and continual learning.
- Maintaining an effective Health and Safety Committee by engaging with staff, which enables participation and provides leadership, guidance and support across the organisation to better inform health and safety decisions and policies for Council staff, contractors and visitors.
- Implementation of health, safety, and wellbeing software (BWARE) to enable reporting, investigation and ongoing monitoring of identified risks.
- Provision of an employee assistance programme, a wellbeing service, policies and training for staff.
- Health and safety monitoring of contractors engaged by Council, through random site audits.

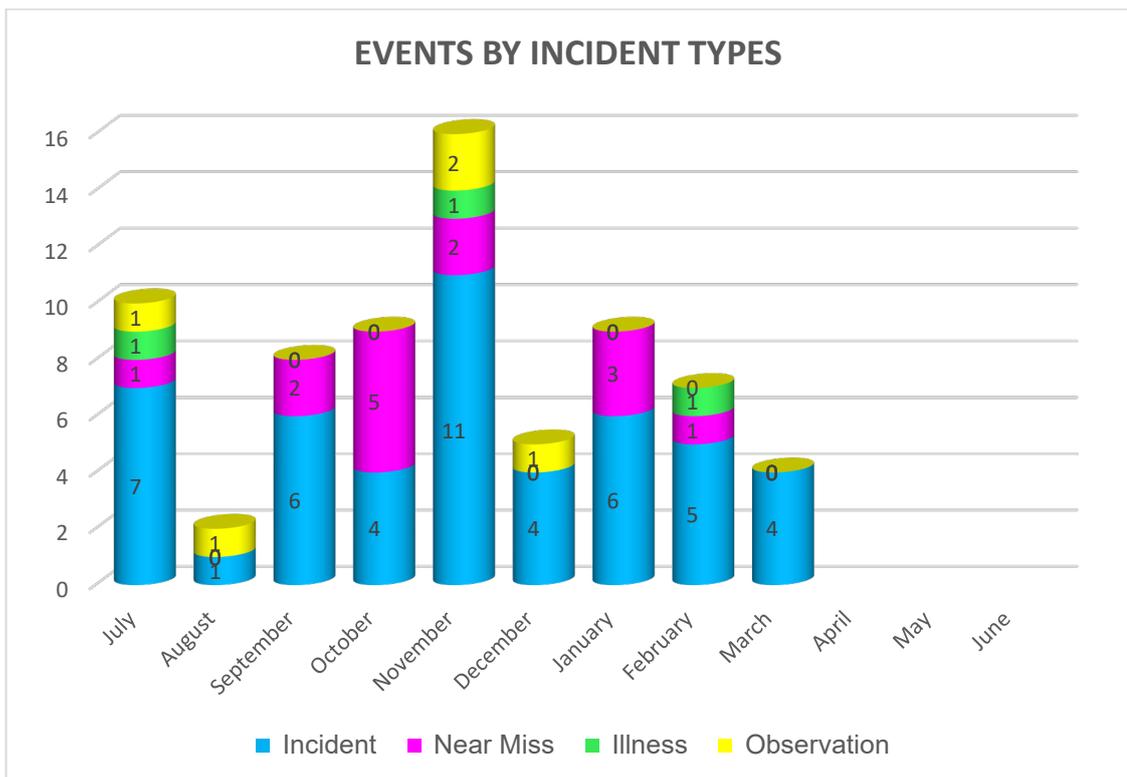
The key items which elected members should note from this report are:

- No notifiable events occurred during this period.
- A total of 11 health and safety reports were received for the period 1 February 2025 to 31 March 2025.
- Two contractor audits were completed for the period covered in this report. Both audits were on roofing contractors, however they related to separate jobs. Site safety inductions were completed for both sites. Overall, both contractors operated safe worksites with minor recommendations relating to first aid kit and wearing of high viz.

3 Incident and Injury Reporting

**Incidents for period – 1 February 2025 to 31 March 2025
(Brackets – Year to Date)**

Incidents 10 (49)	Near Miss 1 (14)	Illness 0 (2)	Observations 0 (5)
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Note: Illness is defined as a health condition or disease directly caused or significantly aggravated by factors in the workplace. These include breathing issues, heat exhaustion, dehydration, but do not include covid-19 cases.

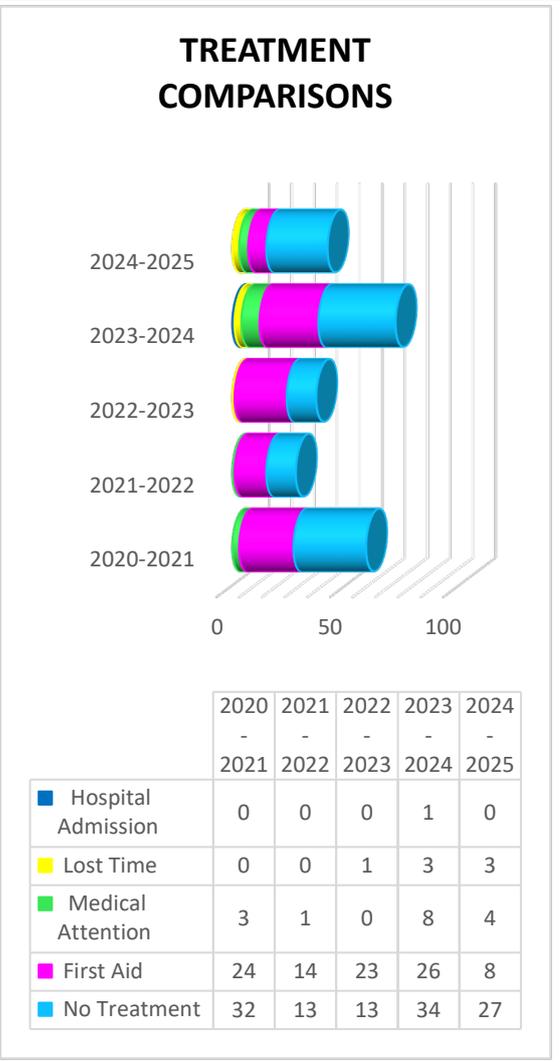
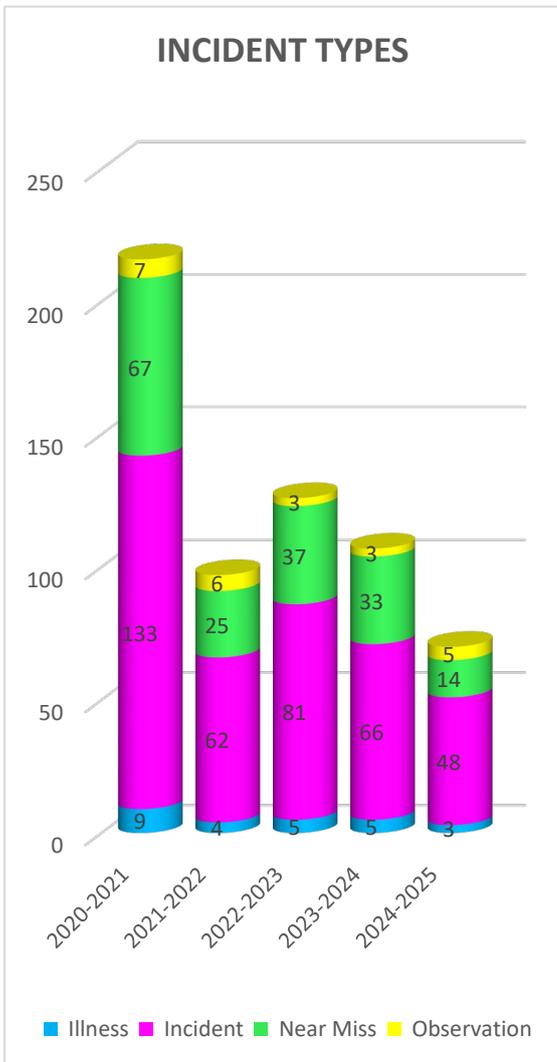
**Incidents Risk Type and Treatment for Period
1 February 2025 to 31 March 2025**

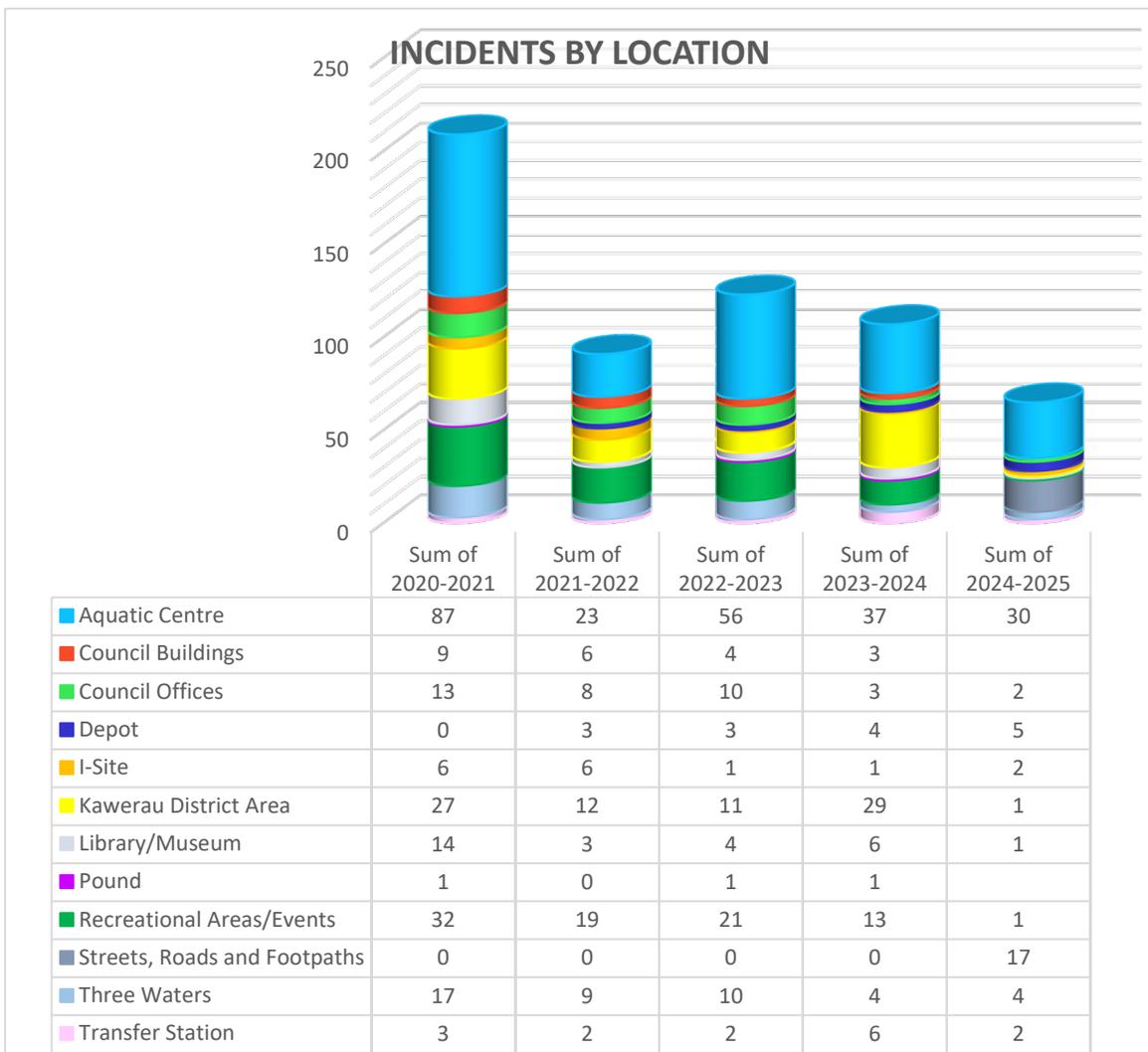
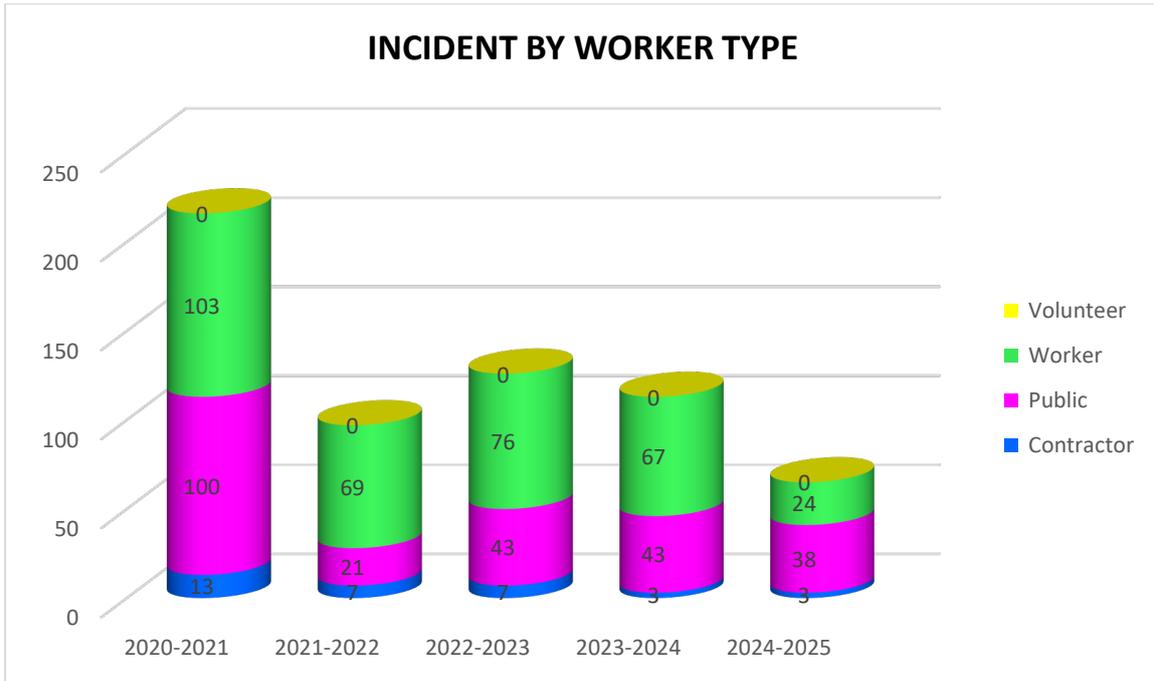
Events by Critical Risk	
Public/People/ Customers	3
Stress	0
Slips, Trips and Falls	3
Lone Working	0
Manual Handling	1
Other *	4

Outcome of Incidents	
No Treatment	6
First Aid	4
Medical Treatment	0
Lost Time	0
Hospital	0
Does not include Near Misses or Observations	
Investigations Required	
Formal Investigation	0
Work Safe Investigation	0

* Other – Phoenix palm leaves dropping on ground missing pedestrians, Cracked windscreen while driving, Woman had seizure, Minor chemical leak

Incidents and Treatment Comparisons





Note: Prior to 2024-2025, Streets, Roads and Footpaths were reported under Kawerau District Area.

Potentially Critical Events/Critical Events
1 February 2025 to 31 March 2025

Event	Critical Risk	Potential Consequence	Actual Consequence	Controls and Status
Customer fight outside Maurie Kjar Aquatic Centre – including vehicles involved in ramming incidents	Violence, Aggression and/or Assault by public, people, customers	High	Low	<ul style="list-style-type: none"> • Customer Conflict Training • Dealing with Abusive Customers Process Staff handled situation well – Council facilities locked down to keep staff and customers safe. Police called to deal with incident occurring. Lock down lifted when incident cleared. No known injuries. Damage caused to public vehicle involved in incident.

KEY:

High	Potential or actual consequence which is serious in nature and could cause medium to long term loss of time (over a week), hospitalisation or significant damage to property
Medium	Potential or actual consequence which is moderate in nature and could cause short-term loss of time (under a week), medical treatment, or damage to property.
Low	Potential or actual consequence which is minor in nature resulting in no loss of time, no medical treatment (first aid only) and minimal damage to property.

4 Health, Safety and Wellbeing Risk Related Activities

Health, Safety and Wellbeing Related Activities		
Risk	Key Activity	Planned Activity
General Health and Safety Risk Programme	<ul style="list-style-type: none"> • Maurie Kjar Aquatic Centre Site Safety Induction (2) • Water Treatment Plant, Pump House Site Safety Induction (1) • District Office Site Safety Induction (4) • Transfer Station Site Safety Induction (2) • BWARE APP & Antenno APP Induction (2) • Monthly meeting ongoing – fully represented by all work groups. 	<ul style="list-style-type: none"> • Health and Safety Awards set for 1 May 2025. • Finalise internal audit based on the SafePlus audit (a performance improvement initiative) to be undertaken after the health and safety awards. This audit will help identify areas of weakness and provide ideas for ongoing improvement. • Finalise the top critical risks. Critical risks identified and grouped. Health and Safety committee have been unable to reduce the top 13 to 10 critical risks. Leadership provided with report and final considerations are being undertaken.
Contractor Management	<ul style="list-style-type: none"> • One contractor audit completed in February <u>Roofing Contractor</u> – Sub contractor only on site at the time of audit. One worker was not wearing high vis – improvements with PPE could be made. Scaffolding professionally erected and displayed inspection tag. Recommended better fencing to contain the work site, but no real concern. • One contractor audit completed in March <u>Roofing Contractor</u> – Public and worker safety and security managed appropriately with wire fence panels. Warning signage clearly displayed and updated. Working at height managed well. Recommended a review of the size of first aid kit given number of workers. 	<ul style="list-style-type: none"> • Contractor audits to be completed monthly (except December and January). • Contractor audits ongoing throughout the year.

Risk	Key Activity	Planned Activity
Training	<ul style="list-style-type: none"> • First Aid Training (2) • Effective Lifeguard Supervision (8) • Breathing Apparatus Training (2) • Lock Out Tag Out – Isolations (1) • Handle Hazardous Substances Safely (2) • Advanced Height Training (1) 	<ul style="list-style-type: none"> • Organise Dangerous Dog Training for Outdoor Staff. • Training programme being reviewed for this year.
Policy Reviews	<p>Health and Safety Team completed reviews on:</p> <ul style="list-style-type: none"> • Safe Driving Policy • Visual Display Unit (VDU) Policy <p>No policies signed off by the Senior Leadership Team</p>	<ul style="list-style-type: none"> • Sun Protection Policy – Draft has been developed, for consideration by the Leadership Team before consultation with staff.
Risk Reviews	Asbestos Risk Review	

5 Health and Wellbeing

Health and Wellbeing

Emergency Readiness

Automatic External Defibrillators (AED's)
available at Aquatic Centre and District
Office
Civil Defence exercise completed on 21
March 2025

General Health

Pre-employment medicals continue to be
done
Influenza Vaccination expected from 1
April 2025

Wellbeing initiatives

Employment assistance programme
provided by Vitae.
My Everyday Wellbeing web platform
available to staff and their families.

Health Monitoring

Ongoing random drug testing and pre-
employment drug testing

6 RECOMMENDATION

That the report "Health, Safety and Wellbeing Report for period - 1 February 2025
– 31 March 2025" be received.

Michaela Glaspey

Group Manager Regulatory and Planning

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Meeting: Audit and Risk Committee

Meeting Date: 7 April 2025

Subject: Treasury Report to 31 January 2025 and 28 February 2025

File No: 110551

1 **Purpose**

The purpose of this report is to inform members of the funds held by Council as at 31 January 2025 and 28 February 2025 and provide explanations for any significant variances from the previous year.

2 **Background**

The Treasury reports as at 31 January 2025 and 28 February 2025 were presented to the Regulatory and Services Committee on 12 February and 12 March 2025, respectively. The report shows the funds held and the banks where those funds are invested. All investments were made in accordance with Council's Investment Policy.

Council's Investment Policy allows up to 50% of total funds to be invested with any one bank but up to a limit of \$1.5 million. The exception is Council's principal bank where funds can exceed 50% and/or \$1.5 million.

Council has now raised three loans to fund the water reticulation renewals project, the first loan of \$2.0 million was raised in December 2022, and the second in October 2023, with both loans having the maturity date of 15 April 2025. During October 2024, the third \$2.0 million loan was uplifted, which has a fixed interest rate of 4.91% with the maturity date of April 2029.

3 **Funds Held**

The following table shows Council's reserves and general funds balances as at 31 January 2025:

	Jan 2025	Jan 2024
Reserve Funds		
Depreciation Funds*	\$4,988,244	\$4,247,867
Total Special Funds	\$4,988,244	\$4,247,867
General Funds	(\$429,805)	\$(877,437)
Total – comprising cash & internal loans	\$4,558,439	\$3,370,430

* This includes loan funds uplifted.

The following funds were held at 31 January 2025:

Invested in	\$	Interest Rate	% External
ANZ – on call	751	2.1%	0.02%
BNZ – current & on-call	3,050,670	3.2%	99.24%
Rabobank (on-call)	22,797	3.0%	0.74%
Total Funds (Cash)	3,074,218		100.0%
Internal Loans	1,484,221		
Total Investments	4,558,439		

The following table shows Council's reserve and general funds balances as at 28 February 2025:

	February 2025	February 2024
Reserve Balances		
Depreciation Reserve Funds*	\$5,057,076	\$4,435,337
Total Reserve Balances	\$5,057,076	\$4,435,337
General Funds	\$1,205,545	\$864,880
Total (comprising funds & internal loans)	\$6,262,621	\$5,300,217

* This includes loan funds uplifted.

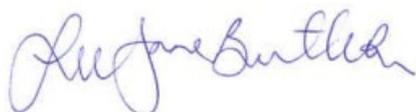
The following funds were held at 28 February 2025:

Invested in	\$	Interest Rate	% External
ANZ – on call	751	2.60%	0.02%
BNZ – current & on-call	4,762,345	3.50%	99.50%
Rabobank (on-call)	22,906	3.50%	0.48%
Total Funds (Cash)	4,786,002		100.0%
Internal Loans	1,476,619		
Total Investments	6,262,621		

The figures show that overall Council has increased funds of \$962,404 at the end of February when compared to this time last year. Council had lower cashflows throughout 2023/24, with the funds gradually increasing during 2024/25. Council now has \$6m in loans funding for the water reticulation renewals.

4 RECOMMENDATION

That the report "Treasury Report to 31 January 2025 and 28 February 2025" be received.

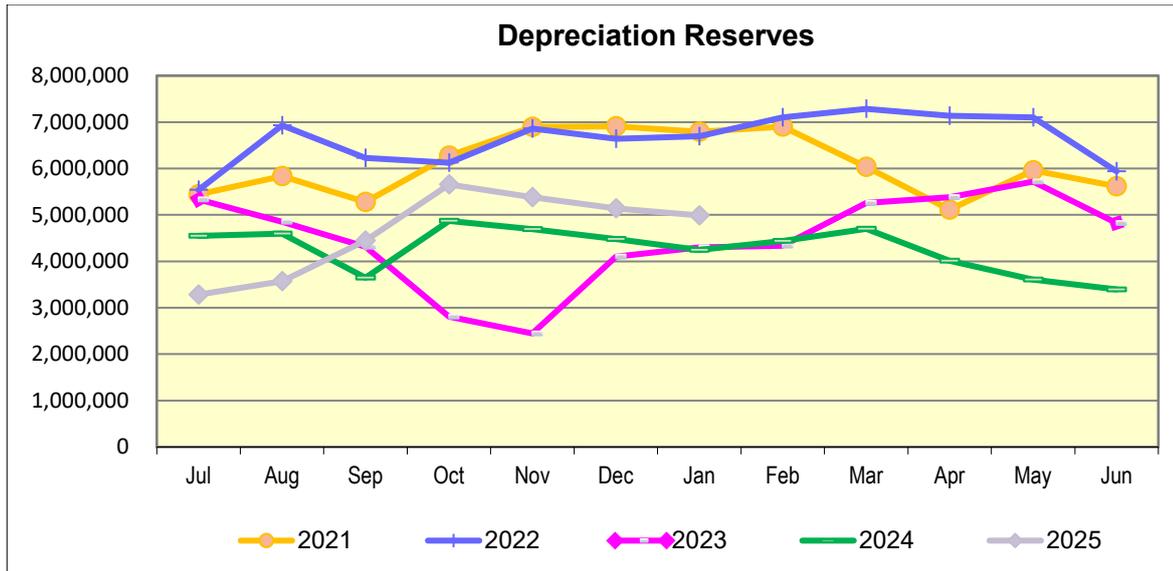


Lee-Anne Butler, CA, BMS

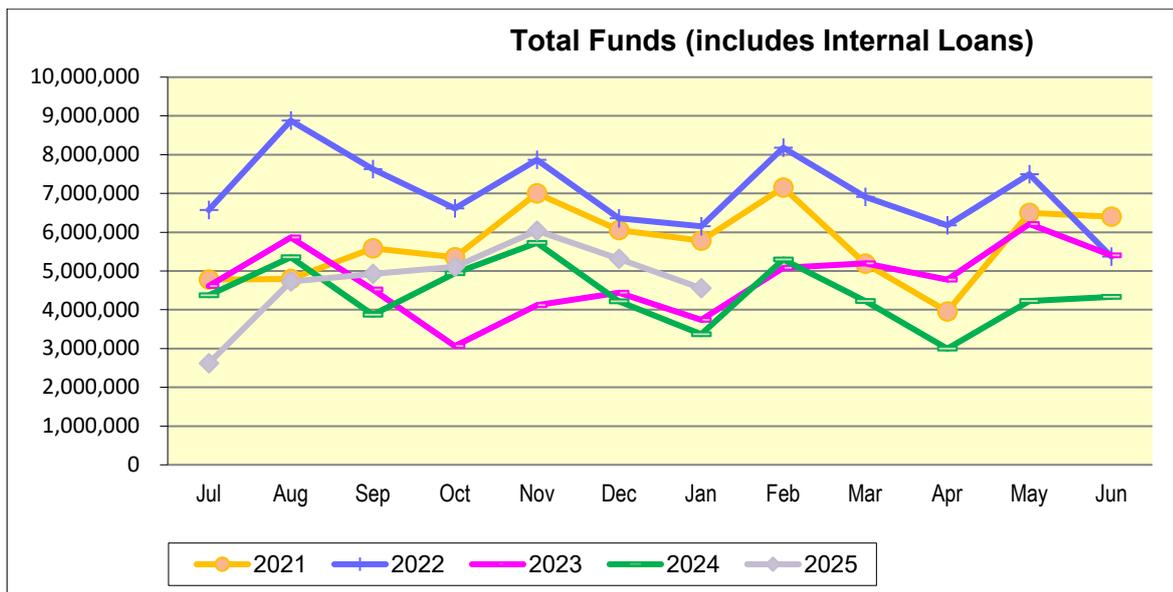
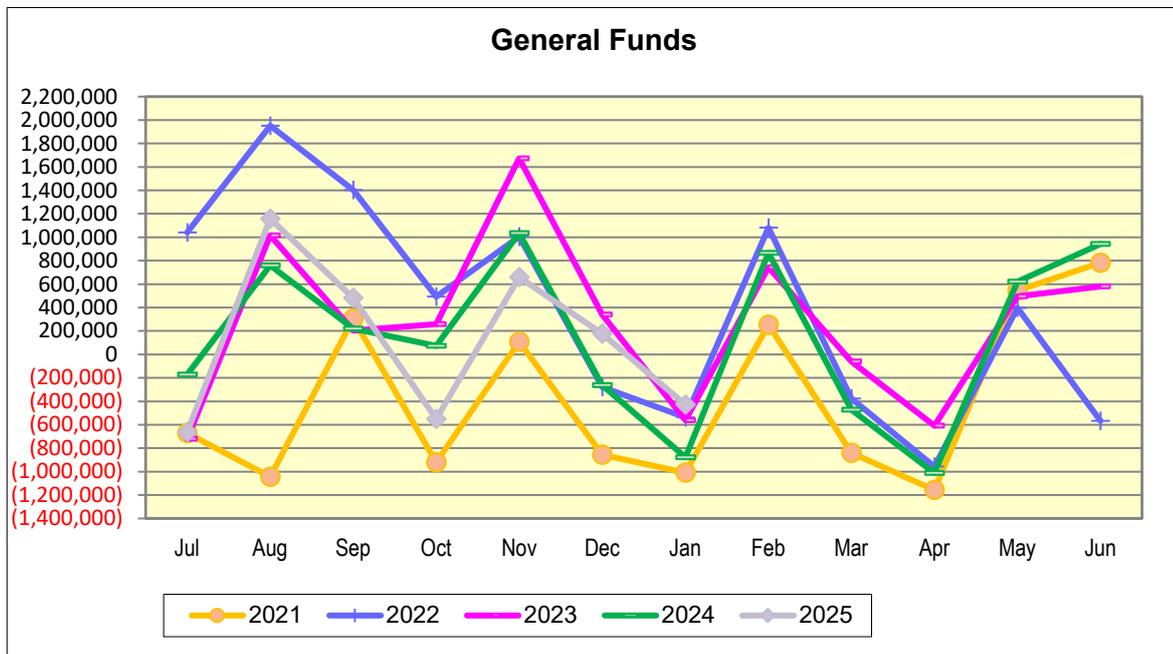
Group Manager, Finance & Corporate Services

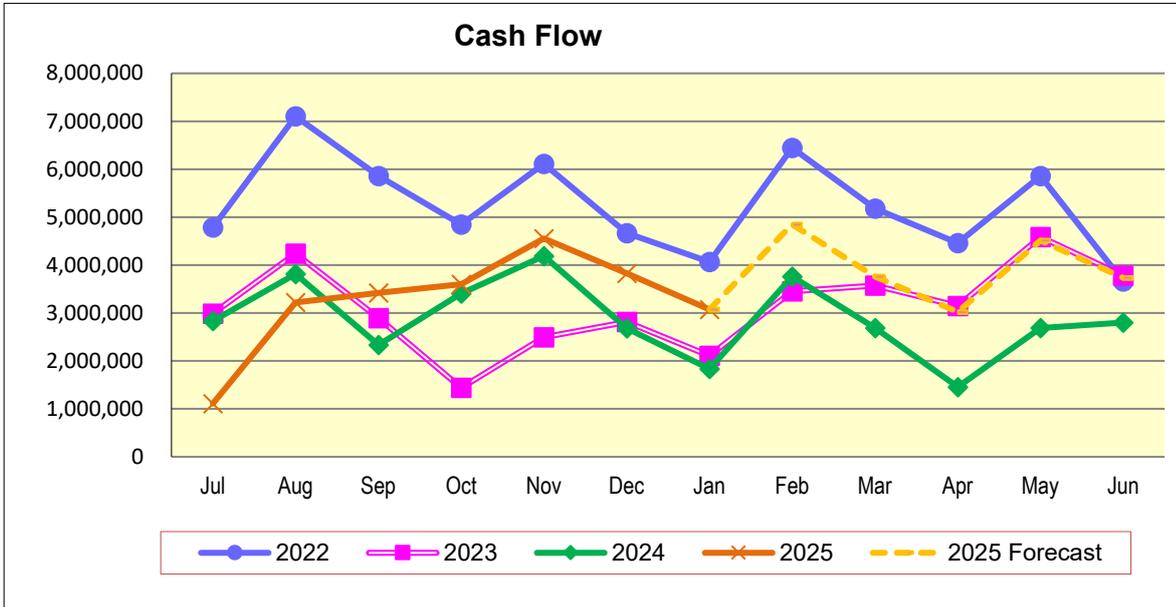
Appendix

Financial Data - January 2025



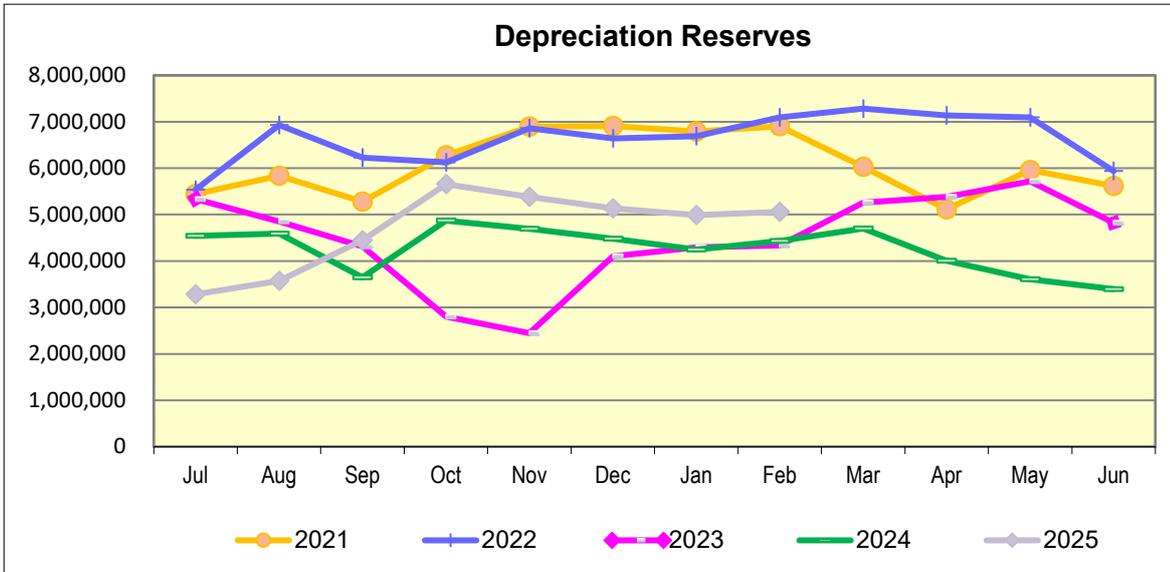
The depreciation reserves funds above includes the loan funding Council has uplifted.



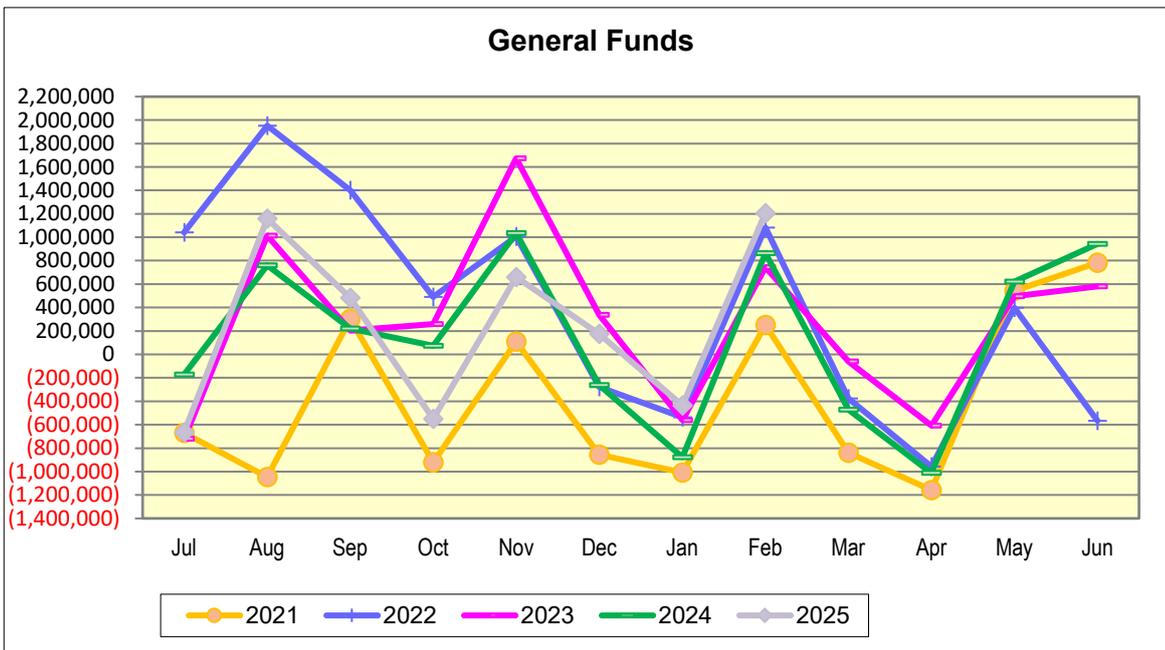


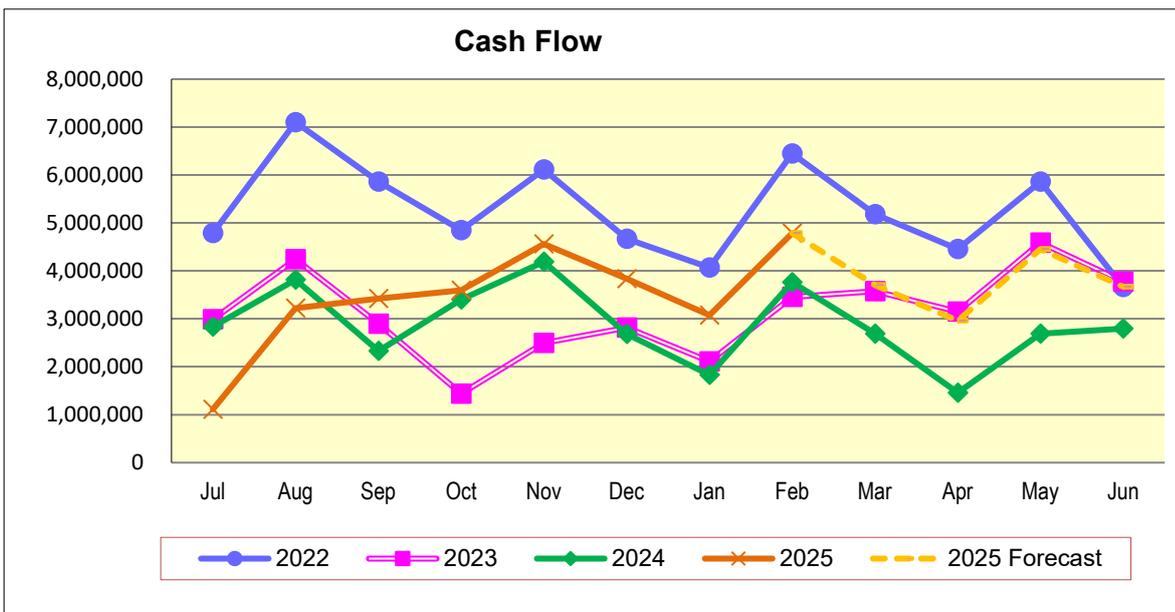
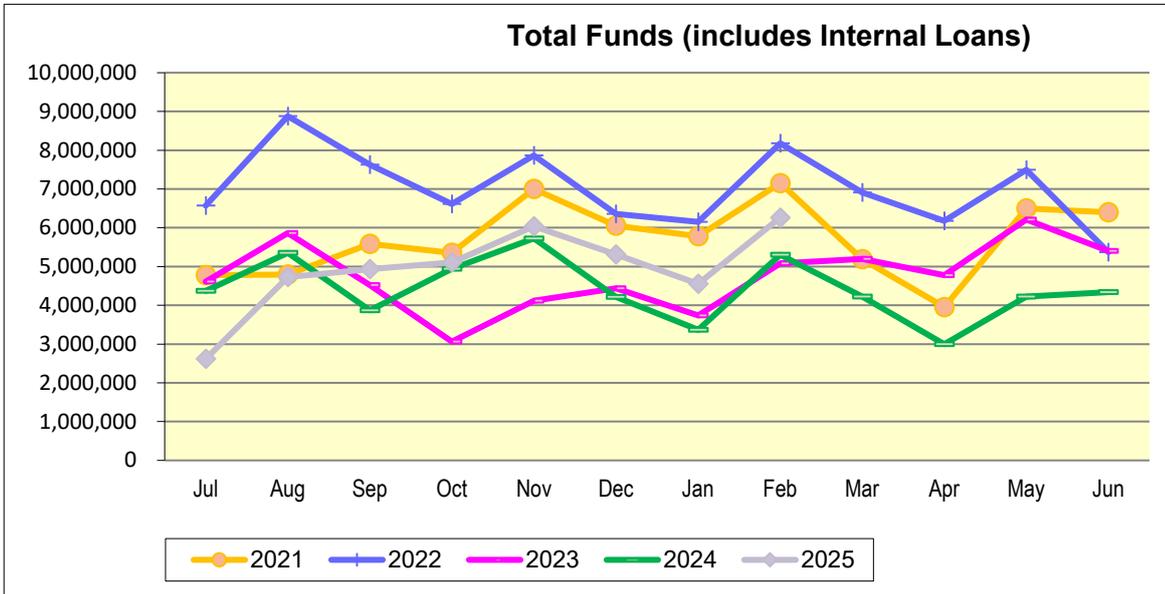
Please note that the 2023 actual cashflow is the same as the forecast cashflow for months year to date.

February 2025 – Financial Data



The depreciation reserves funds above includes the loan funding Council has uplifted.





Please note that the 2024/25 actual cashflow is the same as the forecast cashflow for months year to date.

Meeting: Audit and Risk Committee

Meeting Date: 7 April 2025

Subject: Long Term Plan 2025 – 2034 Update

File No: 110555

1 **Purpose**

The purpose of this report is to provide the committee with an update on the Long Term Plan 2025-2034 and timetable.

2 **Background**

The Local Government Act 2002 requires Council to prepare a Long Term Plan at least every three years and an annual plan in the years in between. Council must also consult on its Long Term Plan using the special consultative process, which includes preparing a consultation document and engaging with the community. There is also a requirement that the Long Term Plan and the consultation document must be audited.

The 2024/25 financial year would have been year one of the new 2024 - 2034 Long Term Plan. However, due to the Government reforms on the Three Waters Legislation, on 10 April 2024, Council resolved that *“under clauses 48 and 49 of Schedule 1AA of the Local Government Act 2002 (inserted by the Water Services Acts Repeal Act 2024),* to prepare an enhanced Annual Plan for 2024/25 and a nine year Long Term Plan 2025 - 2034.

The nine year Long Term Plan 2025-2034 must be adopted by 30 June 2025.

3 **Timetable for Long Term 2025 – 2034**

The appendix to this report contains the timetable for the preparation and adoption of the Long Term Plan 2025 – 2034 and shows progress to date.

The Long Term Plan Consultation Document and the underlying key documents of the Long Term Plan have been prepared and will be adopted by Council on the 9 April 2025 and consultation with the community will commence on the 11 April 2025.

Audit New Zealand started the audit of the Long Term Plan and Consultation Document on the 26 February 2025. Due to the timing of the audit ‘Hot Review’ the timetable for adoption of the Consultation Document, period of consultation and hearing of submissions was extended by one week. This will reduce the turnaround period to complete the final Long Term Plan by one week, however the intention is to still adopt the Long Term Plan 2025 – 2034 on 25 June 2025. The dates in the timetable have been updated to reflect this one week delay.

At the time of preparing this report, the final audit reviews of the Long Term Plan Consultation Document were being completed by Audit New Zealand.

4 RECOMMENDATION

That the report “Long Term Plan 2025 – 2034 Update” be received.



Lee-Anne Butler, CA, BMS

Group Manager Finance and Corporate Services

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Appendix A - Project Plan for 2025 – 2034 Long-Term Plan

Tasks	Responsible	Completion
Policy & Strategy Reviews		
Investment Policy	GMFCS	Completed
Liability Management Policy	GMFCS	Completed
Significant Forecasting Assumptions	GMFCS	Completed
Revenue and Financing Policy	GMFCS	Completed
Rates Remission & Postponement Policies	GMFCS	Completed
Infrastructure Strategy (30 years)	GMOS/GMFCS	Completed
Financial Strategy	GMFCS	Completed
Financial Contributions Policy	GMRP	Completed
Significance and Engagement Policy	CEM	Completed
Rates Review	GMFCS	Completed
Asset Management Plans		
Roading	GMOS/FA	Completed
Water Supply	GMOS/FA	Completed
Wastewater	GMOS/FA	Completed
Stormwater	GMOS/FA	Completed
Financials		
Prepare initial Budgets for 2025-2034 LTP	SLT	Completed
Budget Collation and Managers Review	GMFCS/SLT	Completed
Budget Overview	GMFCS	Completed
Rates Impact	GMFCS	Completed
Agree Budget and Rates impact for Community Consultation	GMFCS	Completed
Long Term Plan Preparation & Consultation		
Prepare Performance targets (non-financial)	All Managers	Completed
Draft LTP Consultation Document – LTP Statement of Proposal prepared and presented to Council for consideration and changes	CEM/GMFCS	Completed
Audit of LTP Statement of Proposal	GMFCS	26/02/2025 to 04/04/2025 (in progress)
Adoption of LTP Statement of Proposal/Draft LTP Document for Consultation	Council	9/04/2025
Special Consultative Consultation Period: Public Meetings/Newsletter/Website/Media	CEM/GMFCS	11/04/2025

Tasks	Responsible	Completion
Submissions Close		12/05/2025
Advise Submitters wanting to speak	CEM/Admin	19/05/2025
Hear, consider and deliberate submissions	Council	28/05/2025
Implement any changes – amend LTP & prepare rates following submission deliberations		29/05/2025
Audit of LTP 2025-2034	Auditors	29/05/2025 to 6/06/2025
Obtain Legal opinion concerning FIS & rates resolution		13/06/2025
Implement any changes – amend LTP & prepare rates	Any audit adjustments	9/06/2025 to 16/06/2025
Adopt Long Term Plan 2025-2034 & rates resolution	Council	25/06/2025
Long Term Plan on website	CEM/GMFCS	30/06/2025

GMFCS = Group Manager Finance and Corporate Services

CM = Communications & Engagement Manager

GMRP = Group Manager Regulatory and Planning

FA = Financial Accountant

SLT = Senior Leadership Team

Meeting: Audit and Risk Committee

Meeting Date: 7 April 2025

Subject: **Audit and Risk Review Timetable from April 2025 to February 2026**

File No: 101300

1 Purpose

The purpose of this report is to inform the committee of the proposed timetable for the review of key risks and financial policies and performance for the Audit and Risk Committee for the next 12 months.

2 Background

Council has appointed an Audit and Risk Committee to overview Council's finances and risks, to ensure that adequate controls are in place to safeguard the community's assets. Most Councils have an Audit and Risk committee to undertake these functions. This Council first established its Audit and Risk Committee on 8 April 2015.

The initial Proposed Audit and Risk Review Timetable for 2024 was presented to the committee at the 8 April 2024 meeting. A request was made for this report to be to be presented at each meeting as a rolling timetable of work to be completed.

3 Proposed Audit and Risk Review Timetable

The appendix to this report contains the proposed timetable for the review of risk management, financial policies, as well as financial reporting and planning, for the next 12 months of scheduled meetings.

There may be other policies or reviews that the committee would like to be reviewed that can be added to the schedule at any stage.

With the Council Election in October 2025, no Audit and Risk meeting has been scheduled. The December 2025 meeting date will be confirmed following the election.

4 RECOMMENDATION

That the report "Audit and Risk Review Timetable from April 2025 to February 2026" be received.



Lee-Anne Butler, CA, BMS
Group Manager, Finance & Corporate Services

Appendix

Audit & Risk Committee Meetings and Review Schedule

Topic	Tasks	7 April 2025	9 June 2025	11 August 2025	October 2025 (Election)	December 2025	9 February 2025
	Insurance renewal plan			Insurance Update Report			Report on current Council insurance policies
	Health and safety policy and reporting requirements	Reports (monthly) monitoring Council's Health and Safety systems throughout the year					
Risk management	Review/update Risk Policy, Risk Register and Risk Framework			Review/update risk framework, register and policy			Undertake further reviews as required in line with best practice
	Identification of risks and mitigations for significant projects	Local Water Done Well update, risks and implementation	Local Water Done Well update, risks and implementation	Residential Developments – Risks identified and mitigations & controls		Undertake further reviews as required in line with best practice	
Policy Review	Sensitive Expenditure Policy			Review/update policy for committee consideration			
	Financial policies (Code of Conduct, Gifts Policy, Fraud Policy)			Review/update Council's gift policy.			Fraud Risk Assessment
	Bylaws and Policies	Report on Draft Financial Strategy and Significant Assumptions	Update on Council Policies and By-Laws				Update on Council Policies and By-Laws

Topic	Tasks	7 April 2025	9 June 2025	11 August 2025	October 2025 (Election)	December 2025	9 February 2025	
	Treasury Reports	Reports (monthly) monitoring Council's Cash position throughout the year						
Financial reporting and Annual Report	Quarterly financial and non-financial performance		Performance report to 31 March 2025			Performance report to 30 June 2025 & 30 September 2025		
	Audit Management Report	Update on Progress of Audit Management Report to 30 June 2024		Report on Interim Audit Management Report - 2025		Final Audit Management Report 2024/25		
	Prepare 2024/25 Annual Report		Timetable for Annual Report					
	Timetable for the preparation and adoption of AP/LTP amendments	Update on LTP Risks & issues	Update on LTP Risks & issues			Timetable Annual Plan & updates	Timetable Annual Plan & updates	
Internal Audit	Review and consider provision of internal audit functions			Proposed internal audit programme for Council				
Asset Management Plans	On-going programme to improve the AMPs	Report on AMP's and Infrastructure Strategy for 2025-34 Long Term Plan						

<u>Meeting:</u>	Audit and Risk Committee
<u>Meeting Date:</u>	7 April 2025
<u>Subject:</u>	Update on Audit Management for the year ended 30 June 2024
<u>File No:</u>	201000

1 Purpose

The purpose of this report is to update the committee on progress with the recommendations in the Audit New Zealand Report for the year ended 30 June 2024 and management's responses to the recommendations identified.

2 Background

The Local Government Act 2002 requires that Council produces each year an annual report and that the annual report is audited.

As part of the audit process, an audit report is prepared by Council's auditors, which identifies issues that Council needs to address to improve its internal controls and ensure it is meeting the legal obligations.

Council received an interim audit report, which was reported to this committee on 5 August 2024, which also included management's comments to the recommendations.

In December 2024, the Committee received the final audit report for the year ended 30 June 2024, which included management's responses to the recommendations raised. Council's Audit Director René van Zyl attended the meeting to discuss and clarify any of the recommendations raised in the management report.

3 Recommendations Raised in the Audit Report to 30 June 2024

The recommendations as per the report to Council on the Audit for the year ended 30 June 2024, as well as management's responses to the recommendations raised, are detailed in the table below. The table also includes an update on progress for each of the recommendations raised.

There was one urgent priority recommendation, regarding Ozone access and this was implemented immediately following the point being raised. The recommendation relating to completeness of the valuations cannot be closed until the 30 June 2025 audit is completed.

Open recommendations

Recommendation	First raised	Status	Progress Update
Urgent			
No evidence of approval for access to new users on Ozone			
Access to Ozone is approved by the Group Manager Finance and Corporate Services and evidence of this approval is retained.	2023/24 – interim	<p>This matter was raised in our interim management report and actioned by management. We will follow up as part of next year's interim audit.</p> <p>Management comment</p> <p><i>As reported in the interim management report, the Ozone forms had been approved by either the Manager or the Team Leaders for the new staff members to be added to Ozone as was the process. The process has now been changed, whereby Ozone access is now being approved by the Group Manager Finance and Corporate Services and evidence of approval is retained.</i></p> <p><i>This process was implemented immediately given advised as an urgent point.</i></p>	<p>All Ozone access forms are approved by the Group Manager Finance and Corporate Services and evidence of approval is retained.</p> <p>This process was implemented immediately following point being raised.</p>
Necessary			
Completeness of valuations			
The District Council ensures all assets within a class are subject to periodic revaluation in accordance with the requirements of PBE IPSAS 17 <i>Property, plant and equipment</i> .	2021/22	<p>This item will remain open until the District Council performs its next valuation.</p> <p>Management comment</p> <p><i>As stated above, this item cannot be closed until the revaluation is completed for the year ended 30 June 2025.</i></p>	This item will be closed following the revaluation in June 2025 and all assets will be included for a class of assets.
Sensitive expenditure testing			
The District Council remind staff of the importance of ensuring expenditure incurred complies with the sensitive expenditure	2019/20	<p>Refer to section 5.1 above for our findings.</p> <p>Management comment</p> <p><i>Reminders have been sent to staff to ensure all expenditure</i></p>	Reminders have been sent to staff to ensure all expenditure is approved in accordance with the sensitive expenditure

Recommendation	First raised	Status	Progress Update
policy and accepted good practice in the public sector.		<p><i>is approved in accordance with the sensitive expenditure policy.</i></p> <p><i>This will be communicated to all staff again.</i></p>	policy and delegated authority.
Approval for disposal of property, plant and equipment			
The District Council implements a process that all asset disposals are approved by the asset managers and this is provided in written format.	2022/23	<p>We were unable to follow up on this issue as there were no material disposals that occurred during the year.</p> <p>Management comment</p> <p><i>The process of the asset disposals being approved by the asset managers has been implemented and evidenced in writing.</i></p>	The disposal of assets are approved by the Group Manager Operations and evidenced in writing.
Regular reviews of network users not being performed			
Regular reviews and reporting be carried out on the network, and within applications, to ensure that only current, approved users have access. These reviews could include automated weekly reports of users who have not logged in for a period of time. These reviews should be evidenced as reviewed and any mitigating or corrective actions noted.	2022/23	<p>Our review of the IT systems shows that there is no documentation evidencing this review. We note due to the size of the Council and the team involved the process implemented by management seems appropriate and will be reviewed during the next interim audit.</p> <p>Management comment</p> <p><i>As reported in the interim management report, there are key controls on the adding and removal of users with access to Ozone. Given there are very few system changes, a monthly report is run and reviewed to ensure user access is correct, which is being evidenced as reviewed. There is no option of an automated weekly report.</i></p> <p><i>This review process was implemented following the interim audit report</i></p>	A monthly report is printed on movements in access to Ozone which is prepared & signed by the Information Services Manager, which is then reviewed and signed by the Group Manager Finance and Corporate Services.

Recommendation	First raised	Status	Progress Update
Property, plant and equipment reconciliations			
The District Council prepares an annual reconciliation of its asset management systems to the fixed asset register and the reconciliation is evidenced as independently reviewed and any variances corrected.	2022/23	<p>During our testing we noted no evidence for annual reconciliation prepared of RAMM and fixed asset register.</p> <p>Management comment</p> <p><i>Unfortunately, this situation was due to staff turnover and vacancies. Council will look to have this implemented for year end 30 June 2025.</i></p>	Council has appointed a Roading & Facilities Manager, who will assist in a reconciliation of RAMM and the Fixed Asset Register as at 30 June 2025.

4 **RECOMMENDATION**

That the report "Update on Audit Management for the year ended 30 June 2024" be received.



Lee-Anne Butler, CA, BMS

Group Manager, Finance & Corporate Services

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Meeting: Audit and Risk Committee

Meeting Date: 7 April 2025

Subject: Local Water Done Well – risk profile for 2025

File No.: 404000

1 **Background**

At the Committee's request Council is adopting a public sector risk reporting framework which tracks the top risks to Kawerau District Council. This risk reporting framework, with rankings and commentary is outlined in the table below, and is a shorthand guide to the emerging risks to Council in 2025. Aon, the insurance company, and the Office of the Auditor-General (OAG) adopt a similar framework.

The framework before the Committee differs slightly from the last framework presented to the Committee. At the meeting of 10 February 2025, the Committee discussed Council's "risk profile for 2025". The report underpinning the discussion identified significant emerging or anticipated risks, and at the Committee's request the CEO was responsible for drafting a report for the meeting of 7 April 2025 discussing emerging or anticipated risks within the Government's Local Water Done Well programme. This report identifies and discusses those risks.

2 **Top emerging risks**

RISK	RANKING	MITIGATION
Political expectations	HIGH	<p>At Local Government New Zealand's combined sector meeting on 21 November 2024, the former Minister for Local Government Simeon Brown told attendees that "the Government's expectation is that in many—if not most—cases councils will work together to establish joint water organisations".</p> <p>On 26 February 2025, Council resolved to consult the community as part of its Water Service Delivery Plan. Across mid-April to mid-May Council is intending to consult on its "preferred" option in the form of an</p>

		<p>internal business unit and an “alternative” option in the form of a multi-Council CCO.</p> <p>The preference to retain an internal business unit may appear at odds with the Minister’s expectations from November 2024. However, staff are confident Council can demonstrate financial sustainability as part of its Water Service Delivery Plan, and work is already underway to ensure a degree of alignment with the Minister’s expectations for Councils adopting internal business units including investigating “shared service arrangements”, “long term contracting”, and other efficiency measures. For example, in February 2025 the CEO and GM of Operations and Services met with Whakatāne District Council and Ōpōtiki District Council’s lead consultant for their respective Water Service Delivery Plans to discuss the possibility of efficiency gains via joint procurement between our Councils.</p> <p>The Minister’s speech is available via this hyperlink.</p>
Deadline pressure	MODERATE	<p>Council must submit its Water Service Delivery Plan to the Department of Internal Affairs (DIA) on 3 September 2025. This is a hard deadline with DIA explaining that</p>

		<p>extensions are only possible where a Council cannot submit because of ongoing discussions to join a multi-Council CCO.</p> <p>To mitigate against this tight deadline Council is making use of the templates DIA is providing for Water Service Delivery Plans. Staff are already inputting information into the templates including asset management plan data. Some data remains outstanding – e.g. the results of consultation – and the latest Long Term Plan data. This data will form part of the Plan as soon as consultation is complete and the LTP is adopted.</p>
Certification process	MODERATE	<p>As part of the Water Service Delivery Plan Council CEOs must personally certify that the information contained within the Plans is accurate and meets all legislative requirements. This means most, if not all, Council CEOs are seeking peer reviews of their draft plans.</p> <p>Council has not budgeted for peer review, although the cost can be met through the CEO's consultant overhead.</p> <p>DIA does offer an expert "Crown facilitator" to help guide the preparation of Water Service Delivery Plans ensuring the Plans meet legislative requirements. To mitigate</p>

		<p>against a mistake in the certification process, the CEO is planning to contact DIA to determine whether its Crown facilitators can act as peer reviewers as well. Crown facilitators come with the advantage of DIA “lenses” in their work.</p>
<p>Alignment between the Long Term Plan 2025-2034 and the Water Services Delivery Plan</p>	<p>MODERATE</p>	<p>Council is preparing its LTP 2025-2034 on the assumption that water services remain in-house. This assumption reflects the “preferred” option adopted as part of Council’s consultation on its Water Service Delivery Plan. In short, the assumption ensures alignment between the LTP and Water Services Delivery Plan.</p> <p>However, to achieve compliance with Water Services Legislation Council is planning to transition away from the general rate subsidy of water services. In its 9-year draft LTP Council will gradually lift the targeted rate for water and wastewater to ensure that the general rate no longer subsidises water services.</p> <p>This assumption is clearly articulated in the draft LTP, and as a mitigation it has been explained to Audit New Zealand. It will also be articulated in the Water Service Delivery Plan.</p>

3 **Strategic context**

Strategic risks are external risks that threaten planned or desired outcomes. This differs from operational risks which are internal risks threatening planned or desired outcomes. For illustrative purposes, a strategic risk is central government reform while an operational risk is human error. A strategic risk is inflation (external) while an operational risk is incorrect creditor systems (internal).

Aside from “political expectations”, the risks identified in this report are operational risks falling within Council’s direct control. Therefore, Council can make operational adjustments to help manage or minimise these strategic risks. One of the operational adjustments to minimise deadline pressure is to ensure the use of DIA templates (as opposed to paying for consultants to develop a template). One of the operational adjustments to minimise risk in the certification process is to approach DIA to investigate whether they can offer peer review helping ensure that Council has an inside view before the submission of its Water Service Delivery Plan.

However, “political expectations” are a strategic risk, and fall somewhat outside of Council’s direct control. Staff maintain a watching brief for signals from the new Minister for Local Government, Simon Watts.

4 **RECOMMENDATION**

That the report “Local Water Done Well – risk profile for 2025” be received.



Morgan Godfery
Chief Executive Officer

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Meeting: Audit & Risk Committee

Meeting Date: 7 April 2025

Subject: **Review of Council's Asset Management Plans**

File No: 110551

1 Purpose

The purpose of this report is for the committee to review and provide feedback (if any) on Council's asset management plans which provide the underlining data for the Infrastructure Strategy and the asset renewal programme in the 2025 - 34 Long Term Plan.

2 Background

Council's asset management plans are reviewed and updated every 3 years in conjunction with the preparation of the Long Term Plan. The asset management plans provide the underlying asset information, including renewals and depreciation for the Infrastructure Strategy and the Long Term Plan. The plans also list the asset's condition, age, dimension and general location.

Following a comprehensive review of Council's asset management plans for a previous Long Term Plan, Council's Auditor made a number of recommendations to improve the quality of these plans. The recommendations included:

- Prepare an Asset Management Policy
- Update population projections
- Update information in Assetfinda (also include asset condition and replacement costs) – currently asset information held in spreadsheets
- Update asset valuations as 3 years old by then
- Include additional information in AMPs: assessment of useful lives, mandatory performance measures, assessment of level of sophistication and data reliability
- Undertake a peer review of plans
- Council adopt the Asset Management Plans
- Engage additional resource to undertake asset management plan improvements
- Review life expectancy for all assets

Staff have implemented most of these recommendations, with the exception of updating information in Assetfinda. The reason this has not happened to date is because of staff turnover and previous shortages in the operations team.

Council's current auditors have stated that the asset management plans do not need to be adopted by Council, however, staff felt it would be prudent that they be reviewed by the Audit and Risk Committee.

Council has asset management plans for its strategic assets (which are attached to this report):

- Roading
- Stormwater
- Water
- Wastewater

3 Asset Management Plans

Council's asset management plans comprise the following information:

- Description and age of the assets
- Asset values
- Estimated remaining asset life
- Level of services
- Risks associated with the assets
- Asset capacity and any future increase in demand
- Renewals for next 9 years

4 Legal and Policy Requirements

The Local Government Act 2002 requires that Council must plan effectively for the future management of its assets, which includes the preparation of asset management plans for its strategic assets.

5 RECOMMENDATIONS

1. That the report "Review of Council's Asset Management Plans" be received.
2. That the Audit and Risk Committee review and recommend any changes to the Asset Management Plans.



Riaan Nel, B. Tech, BSc Hons

Group Manager, Operations & Services

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KAWERAU DISTRICT COUNCIL
Asset Management Plan 2025

Roading



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Version History

Version	Date	Notes	Author
2015	2015	Final version: AMP - 2015	Tom McDowall
1a	20/10/2017	First revision for 2018	Hanno vd Merwe
1b	27/11/2017	Review: NZTA	Simon Fendall
1c	8/12/2017	Submission to NZTA	Hanno vd Merwe
1d	23/02/2018	External review	David Fraser
2	20/03/2018	Submission to Council	Hanno vd Merwe
2a	24/8/2020	First Revision for 2020	Tina Mitchell
2b	28/1/2021	NZTA	Rob Bullick
2c	20/3/2021	Revision 2021	Tina Mitchell
2d	9/04/2021	Management Review	Hanno vd Merwe
2e	20/07/2021	Post Audit Review amendments	Tina Mitchell
2f	21/09/2021	Post NLTP Funding Allocation amendments	Tina Mitchell
3	1/09/2021	Submission to Council	Hanno vd Merwe
3a	8/02/2024	First Revision for 2024	Tina Mitchell
3b	13/05/2024	Engineering review	Hanno vd Merwe
4	18/3/2025	Revision following audit review	Peter Christophers
4a	26/3/2025	Confirmation of AMP	Riaan Nell
4b	7/4/2025	Review by Audit Committee	



SECTION ONE

Executive Summary



PURPOSE OF THE PLAN

The overall purpose of this Asset Management Plan is to describe Council's strategies for the management of its roading assets. The Plan enables Council to meet the present and expected future needs of the Community over a ten-year period (according to the 10 year Long Term Plan) and into the future (according to the 30 year Infrastructure Strategy).

The Plan details the assets Council owns and describes how the maintenance, renewal and replacement of these assets will be managed and funded to meet required levels of service for Council's Roding Activity in the most cost effective way for households and businesses.

The Asset Management Plan collates high-level management, financial, engineering and technical information from various sources into a single document. It is a tool for communicating complex asset management information and strategies with stakeholders and interested parties.

The level of provision of asset management for the roading asset was evaluated in 2017 by an independent auditor. The appropriate level was recommended to be raised from the Council's asset management policy of "Basic" to "Core" due to the higher risk to the health and well-being of the community in the event of roading assets failing to deliver an appropriate level of service.

The latest assessment of the current roading asset management level shows a gap to meet the level required for "Core". The improvement actions list provided in this Activity Management Plan specifies those actions required to address this gap.

ASSET DESCRIPTION

The community is served by a 43 km roading network (excluding SH 34) which provides access to all the properties within the community and enables travel in and around the district. Footpaths, kerbs and channels, bridges, culverts, streetlights and traffic signs are managed as part of the roading asset.

Key Statistics

Population served (2023)	7,820
Length of Roads (kms)	43
Length of Kerbs (kms)	77
Length of Footpaths (kms)	73
Structures: 1 bridge, 6 culverts	7
Streetlights	1,074

According to the One Network Framework assessment, the majority (71%) of roading corridors are 'Local Streets', 19% are 'Urban Connectors', leaving 6% as 'Activity Streets' roads and 1.5 lane length of 'Rural Road'. The section of SH34 (Tamarangi Drive) that runs through the District is owned and managed by the New Zealand Transport Agency (Waka Kotahi) and is not part of this plan.

The replacement and optimised depreciated values of the assets at 30 June 2022 are as follows:

Asset Type	GRC \$(000)	ODRC \$(000)
Pavement Formation	2,199.7	2,199.7
Pavement Structure	14,569.4	5,052.9
Pavement Surface	6,693.5	2,445.4
Kerbs and Channels	9,719.4	5,010.8
Footpaths	13,282.6	6,161.6
Structures	2,085.0	1,161.5
Street Lighting	4,177.1	1,557.1
Traffic Services	720.3	419.0
TOTAL	\$53,447.0	\$24,008.0

LEVELS OF SERVICE

Council monitors and reports its actual performance against targets listed in the Long Term Plan (LTP).

Customer levels of service

Council targets includes community satisfaction, number of complaints, the number of service requests and time taken to respond as well as number of disruptions and failures. The Community Track Survey in 2023 reported 57% resident satisfaction with the roading, which is below the national average (71%).

The main reasons given by those who were not very satisfied, included potholes or rough roads, poor condition or need of upgrading, and not liking or thinking there are too many speed humps.

A separate question about footpaths indicated that 60% of residents were satisfied. In relation to footpaths, people who were not

very satisfied cited tree roots lifting footpaths, uneven, cracked, rough, potholed surfaces, poor condition or maintenance/upgrading being needed.

Technical levels of service

Council seeks to maintain and operate a roading and footpath system in a manner that is fit for purpose and does not compromise public safety.

The average quality of ride on a sealed local road network is measured by smooth travel exposure with a goal of not less than 95% smooth travel. Similarly, the footpaths are maintained to have more than 95% of footpath area exceed the service level standards.

Road maintenance aims to re-surface at least 5% of the sealed local road network and maintain the footpaths to reduce lips to less than 20mm.

New Zealand Transport Agency agreement service levels

The Government, through NZTA provides part of the funding to maintain and improve roads. Council has an agreement with NZTA to maintain roads to set standards in order to receive funding.

Performance measure guidelines have been developed for Road Controlling Authorities to deliver outcomes focused under the One Network Framework.

These performance measures are intended to ensure that a level of service is provided that is in keeping with the classification of road and sets technical outcome measures for the provision of roading infrastructure. Kawerau District Council has applied these performance measures to the district roading network where it can deliver and monitor the levels of service through its Road Maintenance Contract.

Constraints to levels of service

Constraints that may affect Council's ability to deliver the required levels of service include issues relating to capacity (road corridor width and underground services), reliability of the stormwater system (removal of rainwater from roads) and road roughness.

Resource consents

Consents relevant to roading relate to stormwater discharges and are described in the Stormwater Asset Management Plan.

Significant negative effects

The roading network has the potential to have negative effects on environmental wellbeing through pollution and to public safety through traffic accidents.

FUTURE NEEDS

The Kawerau district has experienced low general population growth and demand for additional services, however it has continued to experience a consistent increase in residents over the age of 65. In the 2013 census, the total population of the Kawerau District was 6,363, a decrease of 8.1% or 561 people since the 2006 census. Despite the predicted further decline, the 2018 census showed a growth of general population to 7,460. The Kawerau district estimated population according to the 2023 census is 7,820 which represents a 4.8% increase in population since 2018 or around 1% population growth per annum.

Council hopes to further bolster this growth with economic development initiatives, such as the development of a new industrial park and promotion of the natural environment.

While there has been traffic growth due to an increased number of vehicles per household and people becoming more mobile, the existing roading network has significant spare capacity. There has been minimal change in roughness indicating that the current road strength is sufficient for the existing volume of vehicles including heavy vehicles.

There is considerable room for further uptake of alternate forms of transportation (other than private vehicle) in a town as small as Kawerau. Many residents who work and school locally, walk or cycle while a significant portion of the mobility impaired population use mobility scooters due to the lack of public transport available. Improvement to this section of the network will encourage greater participation and improve safety.

Adjustments made in 2012 to the boundary between Whakatane and Kawerau districts enabled the creation of an industrial park on SH34 opposite the existing mill site. Industrial development is occurring as a result.

Council has recently completed two new residential developments with a further in the planning phase. These industrial and residential developments will likely result in a small addition to the network however, the majority of any additional traffic will not significantly affect the existing road network.

Any additional roading infrastructure will be constructed by the developer and vested in Council or built by Council and funded by the developer in accordance with council's financial contributions policy.

STRATEGIC CONTEXT – KEY ISSUES

Key issues/threats facing Kawerau for the roading activity are:

Population decline without a corresponding decrease in traffic, leading to a reduced number of ratepayers funding the maintenance and upkeep of ageing transport infrastructure.

The council has initiated economic development initiatives to arrest possible population decline. The most recent population estimate (2023) from Statistics NZ is 7,820 which indicates a small increase. Long-term population estimates for Kawerau however remain uncertain.

Industrial development will result in more traffic in the industrial area. This may in turn require additional roads and infrastructure.

Increased industry increases the rating base that will offset additional development maintenance costs.

Addressing safety issues relating to alcohol, speed and inattention is a joint initiative with other Eastern BOP Councils.

Incidences related to alcohol, speed and inattention have historically been and remain very low in the district; however, it may become more of an issue in the future.

Ensuring Council continues to deliver value for money while at the same time meeting community expectations.

An aging population with a need to utilise mobility scooters requires appropriate infrastructure to ensure safe movement around the district.

A desire to actively encourage alternative forms of transport such as walking and cycling can be brought about in a small town by providing safe and accessible shared access links between residential areas and significant destinations such as the CBD, schools or industrial areas.

Council's asset management system is aligned with the Government Policy Statement to improve economic growth and productivity, road safety; and value for money.

LIFECYCLE MANAGEMENT

Critical Assets

Sealed Pavement

The land between road reserve boundaries is vested in the Council. It includes service lanes and pedestrian access ways.

The pavement surface provides the layer on which traffic travels. On sealed roads, it also protects the pavement formation from water.

Structures

Structures include one bridge, six culverts and several small retaining walls.

Other Assets

Assets in the roading network that have been assessed as non-critical include: footpaths, kerbs and channels, street lighting and traffic services.

Maintenance plan

Maintenance includes grass mowing on roadsides, pothole repair, weed spraying, removing litter and sweeping grit from channels, inspecting and maintaining the bridge, inspecting streetlights and repainting road markings.

Renewal/replacement

An ongoing programme for renewal and replacement for the pavement surface, footpaths, kerb and channels and street lighting. Other assets in the roading network are renewed or replaced on an 'as required' basis.

The replacement of two box culverts under River Road were completed in the 2020/21 year to improve flow in times of extreme rain events.

Safety-related works

Minor improvement projects are associated with safety improvements for the road user. This programme is determined annually and based on NZTA funding criteria. Activities undertaken in this category include intersection improvements, signage and traffic calming. Funding for speed control works was applied for and confirmed by NZTA for the new NLTP.

New assets

Further development at the new industrial park on SH34 may require the construction of new roads and footpaths. These additional works are to be undertaken by the developer.

The development of two subdivisions by Council has resulted in two new access roads as part of the project. Also a further residential development by Council is underway which will require additional access roads but otherwise will only have a small impact on the network.

Deferred maintenance and disposal plan

There are no known deferred maintenance or specific disposals identified in the Plan.

FINANCIAL SUMMARY

The roads in the district meet the current traffic demands with significant spare capacity. Accordingly, with low-level population growth predicted, demand on the network is expected to remain at similar levels to current. Therefore, improvement of assets is not deemed necessary for the foreseeable future.

The roading budgets are based on maintaining the infrastructure in its current condition. This includes funding for asset replacement as the assets reach the end of their useful life. Council's share of the funding required for current and future asset renewal is being collected through Council rates. The NZTA portion of the funding required to replace assets have been calculated on the current subsidy rate for each year of the Long Term Plan.

The risk associated with this is that NZTA funding levels may change with time and therefore Council may need more (or less) rate funding for future replacements.

ASSET MANAGEMENT SYSTEMS AND PROCESSES**Asset management outcomes**

Responsibility for asset management outcomes is with the Group Manager, Operations and Services.

Accounting and asset management systems

Ozone software is used for accounting and billing. All financial reporting, including valuation, as well as pavement information, is currently held in Excel spreadsheets.

Some electronic information is held about roading structures and traffic services.

Council holds hard copy plans for all roads built since 1995 and some of the roads developed prior to that.

All roading asset data including roughness rating survey results and reseals is required to be on the asset and maintenance management software tool RAMM.

The information previously held by Council was not of an adequate standard required by NZTA. A substantial data validation project commenced in the 2021/22 financial year with data quality continuing to improve when compared to the national average. The current data held enables Council to provide the necessary reports for NZTA.

Key information flows and processes

Key information flows and process linkages are those that relate to incorporating Kawerau's Community Outcomes, preparing and adhering to Council's annual budgets, environmental monitoring and compliance and to ongoing asset management that maintains levels of service to the Community.

MONITORING AND IMPROVEMENT PLANNING

The improvement programme for this asset management plan is outlined in section 0. The key improvements identified focuses on improving the inventory database and reviewing anticipated lives.



SECTION TWO

Introduction



PURPOSE OF THE PLAN

The overall purpose of this Asset Management Plan is to describe Council's strategies for the management of its roading assets. The Plan enables Council to meet the present and expected future needs of the community over a ten-year period (according to the Long Term Plan) and into the future (according to the 30 year Infrastructure Strategy).

The Plan details the assets Council owns and describes when the maintenance, renewal and replacement of these assets will be undertaken and funding required to meet the levels of service for Council's roading activity in the most cost effective way.

The asset management plan collates high-level management, financial, engineering and technical information from various sources into a single document. It is a tool for communicating complex asset management information and strategies with stakeholders and interested parties.

ASSET DESCRIPTION

The Kawerau District has a 43km network of roads (excluding SH 34), which provides access to properties and enables the movement of vehicles and people around the Community.

The network consists of:

- Sealed Pavement
- Kerbs and Channels
- Footpaths
- Structures (Bridge and Culverts)
- Street Lighting
- Traffic Services

Table 1: Key statistics

Population served (2023)	7,820
Length of Roads (kms)	43
Length of Kerbs (kms)	77
Length of Footpaths (kms)	73
Structures: 1 bridge, 5 culverts	7
Street Lights	1,074

The geology of the Kawerau District is the result of the Tarawera Eruption. The soil is ash/pumice, is relatively recent in terms of geological age and is poorly compacted. However, it is highly porous and will compact with work, which makes for a good roading foundation.

The topography of the district is generally flat to rolling and roads are generally on the flat areas.

OBJECTIVES OF ASSET OWNERSHIP

Council provides a roading network so that people and goods can move around the district in a manner that is safe, affordable and consistent with regional transportation strategies and the overarching strategic priorities of the GPS (Government Policy Statement) on transport. The provision of roading is vital to the needs and aspirations of those who live, visit, or pass through the district.

The roading asset is managed to ensure that the most cost-effective long-term options are implemented and agreed levels of service are met.

Council has established policies and procedures to ensure:

The quality and extent of the existing roading network is maintained

The community continues to have a say about its roading needs

The roading corridor remains a place where other essential services (phone, data, power, water, sewer etc.) can be placed

Funding is adequate for roads to be effectively maintained at least to existing engineering and safety standards; and

Council meets its statutory obligations in the provision of its roading network.

The roading activity goal is to provide and maintain a system of roads and footpaths for the safe and comfortable passage of vehicles and pedestrians, cyclists and other vulnerable road users (such as mobility scooters) in and through the district.

The roading activity involves:

Management and monitoring of the roading network.

Repairing or replacing streetlights, footpaths, kerbs, carriageway, bridges and culverts.

Planning to meet future requirements and improving operations.

Council's principal objectives are:

To ensure that all of the public systems continue to provide a high quality roading network.

To anticipate the time when it may be necessary to extend, upgrade or renew the roading network and to plan accordingly.

To ensure the maintenance of the public infrastructural assets in perpetuity, so that there is no diminution in value, and to forecast the estimated future costs.

To put in place a sound management regime for all matters relating to the roading network in the future.

GOVERNMENT POLICY STATEMENT ON TRANSPORT

The current draft 2021 Government Policy Statement (GPS) on Land Transport sets out the

government's priorities for expenditure from the National Land Transport Fund over the next 10 years.

The GPS on Land Transport strategic priorities are:

- Improving Freight Connections
- Climate Change
- Road safety; and
- Better Travel Options

The Kawerau district is blessed with natural resources that allow further industrial development. An effective roading network will increase productivity and allow efficient use of these resources. The existing network is sufficient for any currently proposed industrial expansion. Should further development be required, infrastructure would either be constructed by the developer and vested in Council or built by Council and funded by the developer according to the financial contributions policy.

The Kawerau road network has historically experienced very low incidences of accidents related to poor physical characteristics.

During Council's upgrade of the Streetlight network to LED during the 2015/2018 NLTP it was decided at that time to not include the installation of Photocell Sensors as the town was being served adequately by Horizon's ripple plant.

Following an unexpected third party notification to Council from Horizon Energy in late December 2020, Council was advised that the ripple plant controlling the day/night switch for the District streetlights will be decommissioned in the next few years. The decision to decommission due to the plant requiring a necessary and expensive upgrade to the equipment.

Council was not included in any discussion regarding this situation and was only made aware of the plan through a third party. Consequently, Council staff urgently bid for a Low Cost / Low Risk Improvement work category project valued at \$45,000 to undertake the installation of the photocell sensors to the 2021/24 NLTP funding bid. The financing for this project was approved and is expected to be completed by June 2025.

This project has continued with additional funding applied for in the 2024/27 NLTP. The installations occur in conjunction with regular maintenance and fault repairs to reduce additional cost. Council has negotiated the timing with Horizon to ensure the upgrade is completed before the decommissioning takes place.

Management of the Kawerau transport network is undertaken via the asset and maintenance management software tool RAMM to ensure that value for money is consistently achieved for network maintenance, renewal and operation.

EXTERNALLY-MANDATED LEGISLATION

The Local Government Act 2002 (LGA) vests ownership of local roads in the local authority of the district where they are situated and empowers local authorities to administer, develop, maintain and control these roads.

The land between road reserve boundaries is the roading asset. For the local roads, this land is vested in the local authority and for State Highways in the Government. The road reserve includes service lanes and pedestrian access ways, which are a feature in the Kawerau district.

Council may close roads and sell the land, acquire additional land for roads and may assign rights of occupation of parts of the road reserve for underground utilities, subject to appropriate legal processes and in accordance with statutes, primarily the Local Government Act.

Road designations

As a road controlling authority, Council has the statutory right to form and maintain public roads. Where appropriate, land required for road can be re-designated and purchased. This power may be used not only for providing new roads, but also for the realignment or widening of existing roads to improve safety and service.

Zoning and easements

Utilities (phone, power, water, sewer etc.), in accordance with their enabling legislation, are allowed access to the road reserve. Council controls the location of the installed infrastructure and the quality and timeliness of reinstatement. Councils and the Government have the ability to over-ride other zoning requirements to form public roads.

Contribution to Council Community Outcomes

The roading activity contributes primarily to the provision and maintenance of a network of public roads and footpaths.

Council infrastructure and services are aimed to be accessible, age-friendly, effective, efficient and affordable, now and for the future.

LINKS TO OTHER STRATEGIC DOCUMENTS

Public infrastructure supports activities that contribute toward the economic, social, cultural and environmental wellbeing of the community. In addition to roads and footpaths, Council owns the water supply infrastructure, stormwater and wastewater (sewerage) systems, and the district's public parks, reserves, buildings and facilities. The parts that make up those networks and structures

and the tools and equipment used to manage and maintain them, are Council's assets.

Every three years, Council develops a Long Term Plan which sets out the range and level of services it will provide to meet identified community needs and community outcomes.

Changes made to the Local Government Act in 2014 mean councils are now required to develop a 30 year Infrastructure Strategy that will be reflected in the long-term plan.

Each year Council adopts an Annual Plan, which contains the budget for Council services. Council's ability to deliver services and to do so at a reasonable cost depends on the condition, performance and risk profile of its assets. Council's asset management planning underpins the 30-year Infrastructure Strategy and is therefore closely linked to the Long Term Plan and Annual Plans.

This Asset Management Plan is being developed in conjunction with the Kawerau District Council Long Term Plan 2025-2034. It will underpin and be integrated into that document, as well as subsequent Annual Plans.

SECTION THREE

Levels of Service



NEW ZEALAND TRANSPORT AGENCY AGREEMENT SERVICE LEVELS.

For many years, the Government, through the NZTA, has provided funding primarily to maintain and improve roads. It provided that Council will maintain roads to set standards in order to receive the funding. Through the latest Government Policy Statement on Land Transport, NZTA is able to adjust the strategic direction on four priorities – safety, better travel options, improving freight connection and climate change. The GPS2021 via the National Land Transport Fund looks to support a wider range of outcomes, one of which being improving multi-modal options to move people around towns and cities.

Performance measure guidelines have been developed for Road Controlling Authorities to deliver under the One Network Framework. These performance measures are intended to provide a level of service in keeping with the classification of road and set technical outcome measures for the provision of roading infrastructure.

The Kawerau District Council employs these measures in determining levels of service and commit to including more measures as applicable to its network.

CUSTOMER LEVELS OF SERVICE

The National Research Bureau undertakes an independent survey to measure the level of customer satisfaction with the services provided by Council. The results of these surveys for the roading network are shown below.

Table 2: NRB Survey Results – Roading Network

	2007 %	2008 %	2009 %	2011 %	2014 %	2017 %	2020 %	2023 %
Very/Fairly Satisfied	91	96	91	89	93	97	95	57
Not Very Satisfied	9	4	9	10	6	2	5	42

The main reasons why people were not very satisfied were:

Potholes, mentioned by 59% of all residents,
 Too many speeds bumps/ poor signage 22%,
 Poor road quality / uneven surfacing, 22%,
 Others, 4%

Customer Level of Service Outcomes are identified that are intended to reflect fit for purpose outcomes relating to the function of the road. Council's own current Levels of Service ensure that the standard of the Kawerau roading network consistently exceeds these standards.

Council also measures the level of customer satisfaction with footpaths and the survey results are as follows:

Table 3: NRB Survey Results – Footpaths

	2007 %	2008 %	2009 %	2011 %	2014 %	2017 %	2020 %	2023 %
Very/Fairly Satisfied	82	84	73	80	75	85	81	60
Not Very Satisfied	18	16	27	20	24	14	16	38

The main reasons why people were not very satisfied were:

Uneven/cracked / roots / trees / hazards surfaces, mentioned by 53% of all residents,
 Poor condition/need maintenance/upgrading/repairing, 43%
 Wheelchair / mobility scooters / accessibility issues, 9%
 Others, 5%

Council's footpath renewal programme bid for the 3 years of the 2024-2027 National Land Transport Programme funding round is \$485,000 that reflects an increase of \$20,000 from the 2021-2024. This funding level replaces approximately one to two percent of the District's footpaths per year, grinds out uneven surface 'lips' and allows Council to remove large street trees which cause footpaths to lift.

Based on historic concern around footpath tripping hazards and the ongoing issues caused by tree roots, Council commenced a concerted programme of removing the wrong trees that were planted in the wrong place over the preceding decades. Therefore, the application for footpath maintenance remains at \$20,000 per annum.

Roads are tested annually for roughness. A vehicle determines the roughness with sensitive monitoring equipment travelling over the roads and measuring undulations. The lower the number, the smoother the road. The target roughness set by the NZTA for urban roads with Kawerau volumes is 110 to 140 (excluding speed bumps). Kawerau District Council set an average rating target of 90 for all district roads. The average roughness achieved in Kawerau is as shown in the table below. The road roughness survey was unable to be undertaken during the 2019/2020 year as scheduled due to the extended Covid-19 lockdown. The survey will continue to be undertaken annually.

Table 4: Average Road Roughness

Year	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Rating	70%	71%	75%	75%	N/A	90%	93%	89%	95%

TECHNICAL LEVELS OF SERVICE

Council will continue to monitor and report its actual performance against measures and targets described in the LTP. All reporting is produced through quarterly reports to the Council by the Group Manager - Operations and Services.

Table 5: Technical levels of service

Levels of Service	Measures	Target
Roading		
Council provides a network of roads that facilitates the safe movement of people and vehicles around the District.	The change from the previous financial year in the number of fatalities and serious injury crashes on the local road network, expressed as a number.	Increase of zero or less.
Road Quality.	The average quality of ride on a sealed local road network, measured by smooth travel exposure.	Not less than 95%.
Road maintenance.	The percentage of the sealed local road network that is re-surfaced.	>5% per annum.
Response to service requests. (Roding)	The percentage of customer service requests relating to roads to which Council responds within the timeframe specified.	90% within 14 days 100% within 28 days.
Council maintains community satisfaction levels	Community satisfaction with roading	Not less than 91%
	Community satisfaction with footpaths	>77%
Council provides an appropriate network of footpaths for pedestrian use	Percentage of footpaths that fall within the level of service or service standard for the condition of footpaths set out in the Long Term Plan.	>95%.
Response to service requests.	The percentage of customer service requests relating to footpaths to which Council responds within the timeframe specified.	100% within 14 days.

CONSTRAINTS TO LEVELS OF SERVICE

Table 6: Constraints to Levels of Service

Constraint	Component	Comments
Capacity	Road Corridor Width	Carriageway width limits traffic volumes. In Kawerau, this is not a problem.
	Underground Services	Berm width limits the number of services that can be installed. In Kawerau, this is not a problem.
Reliability and Security of Service	Stormwater	Flooding during very heavy rain may block sections of road for short periods due to a combination of intentional design and cesspit lids blocking with debris.
		During extreme weather events, the culverts have from time to time become blocked resulting in localised flooding, a regular programme of clearing excess vegetation from the streambeds is undertaken in order to mitigate this risk.
		Roads could wash out from surface flooding. This has not occurred in Kawerau.
Road Roughness	Asphalt versus chip seal	Smoother roads reduce vehicle operating costs. Asphalt is much more expensive than chip seal so only limited areas can be justified.
Environmental Performance	Contaminated stormwater	All existing discharge points to natural waterways are covered by resource consents. Because the stormwater comes almost exclusively from the roading network there is unlikely to be unknown contaminants in the stormwater from other sources.
Other Capabilities	Safety	Physical characteristics of a road influence road safety. There have been no roads accidents recorded as being due to poor physical characteristics of the roadway. The main contributors to accidents are driver related. Council is involved in both driver education and physical safety audits

RESOURCE CONSENTS

Stormwater collected on roads is channelled into rivers through the stormwater network. The resource consent conditions that control this process are described in the Stormwater Asset Management Plan.

SIGNIFICANT NEGATIVE EFFECTS

The roading network has the potential to have negative effects on the wellbeing of the environment, residents and society in general, mainly through pollution from vehicles and traffic accidents. The following consequences of the roading network are managed as described to ensure sustainable service with minimal impact:

- Stormwater runoff from roads concentrates and flows faster than that from vegetation areas, with potential to overflow the capacity of the stormwater infrastructure and damage waterways.
- Stormwater runoff contains small particles to which hydrocarbon and heavy metal by-products of engines and tyres bond. This, concentrated by rainfall, presents a threat to receiving waters.
- Spillage of contaminants due to insecure loads or vehicle accidents can cause a threat to the environment.
- Traffic contributes to air pollution and noise levels.
- People who use the roading network are at risk of personal injury due to how they and others use the network.
- Road works create additional temporary hazards and potential for additional pollutants.

The negative effects are minimised as follows:

- Cesspits enable some of the grit to be trapped for retrieval and disposal to landfills where contaminants are contained without discharge to waterways.
- During accident responses, the Council and the New Zealand Fire Service work together to contain spill contaminants as quickly as possible.
- In partnership with Central Government and the Regional Council, road rules are developed which aim to control traffic noise and emissions. Enforcement is provided by the New Zealand Police.
- Traffic accidents are in the main attributable to drivers not using roads safely. Council works with other agencies (Police, ACC, Toi Te Ora Public Health, NZTA, Road Safety Groups etc.) to improve driver behaviour. However, even when the risks are known, users don't always adhere to recommended road safety practices.
- Qualified engineers assess road design layout. Road improvements are constructed, upgraded, sign posted and illuminated appropriately to comply with design standards for safe alignment, driving performance, sight lines and vehicle design.
- Road workers are required to comply with additional temporary standards of signposting and safety to manage any risks created by their presence.



SECTION FOUR
Risk Management



RISKS

Physical Risks

Physical risks are generally:

As a result of the inevitable natural process of deterioration.

Because of actions of other parties working in the vicinity of the assets.

Because of natural disasters (earthquakes/flooding).

Durable materials, good workmanship, and careful planning will not always be sufficient to prevent physical damage by persons or natural events (severe flooding, earthquakes). In 40 years, there has been no damage to the roading network due to natural disasters despite the Edgecumbe earthquake occurring during this time. This indicates that the roading network is exposed to minimal risk from natural disasters.

Subsequent to a series of severe weather events and an extremely wet summer season, Kawerau for the first time experienced a localised area suffering from chronic high water table resulting in damage to the road structure – wash out, floating surface, water leaching. Significant works were undertaken to drain the excess groundwater and to mitigate future incidents.

Financial Risks

Commercial risks are those that result in decreased cash flow and/or inability to fund the works that are required. They include loss of a major ratepayer (requiring the fixed cost burden to be absorbed by the remaining ratepayers), the failure to take advantage of any available subsidies and replacing roading network assets before end of life, resulting in less than optimal life-cycle cost.

Health and Safety Risk

These are health and safety risks to people and property, as a result of the physical actions or omissions of Council staff or contractors, or failure of equipment. The practice of employing reputable contractors for maintenance and new works minimises the health and safety risks.

Environmental Risk

There are environmental risks consequential to the construction and operation of the roading network and/or physical actions or omissions of Council staff or contractors. These risks are managed by good practice and compliance with the conditions of resource consents, such as stormwater runoff.

Regulatory Risk

This is the risk of prosecution due to failure to comply with legislation. The New Zealand Police or Department of Labour could charge Council with negligence if due care is not taken with roading works, especially if an accident were to happen.

Bay of Plenty Regional Council could also prosecute Council if due care is not taken with spills on roads or if Council failed to rectify potential or actual pollution caused by the roading activity.

Regulatory risks are managed by good practice and complying with the conditions of resource consents.

Insurance

Council has adequate insurance in place to ensure the infrastructure can be restored in the event of a natural disaster and still keep functioning financially.

Civil defence and emergency response plans

Council has identified essential staff for recovering the roading, stormwater, water and wastewater systems in the event of a natural disaster. The key areas have been identified and responses proposed.

RISK MITIGATION

Council actions taken to mitigate risks are set out in the table below.

Table 7: Risk Mitigation

Key Exposure	Class of Risk Probability	Residual Exposure Consequence	Mitigation
Physical			
High Water Table Event	Low	Moderate	Resilience measures to combat excess groundwater accumulation.
Seismic Event	Medium	Significant	Earthquake Design Standards Access can be gained from both ends of road except for cul-de-sacs Insurance cover
Flood Event/ Road Closed	Medium	Low	Staff available 24/7 Flooding normally short term Alternative routes available
Damage by Others	High	Moderate	Staff available 24/7.
Commercial			
Poor contractor/staff performance	Low	Low	Only use reputable contractors/trained staff Work undertaken in small parcels reduces impact of poor performance
Loss of Subsidy (Affordability of service)	Medium	High	Comply with NZTA agreement conditions NZTA does not change subsidy rates rapidly
Loss of computer records	Medium	Low	Data collected are backed up regularly
Injury to persons or property due to incorrect signage or operations	Medium	Medium	Use reputable contractors Monitor safety practices of contractors/staff
Injury to road or footpath users	High	Medium	Education enforcement initiatives undertaken Remedy defects in asset quickly. Offer support to person injured
Environmental			
Complaints about road noise, vibration	Low	Low	Complaints dealt with promptly
Waterway contaminated by construction or spillage runoff	Low	Medium	Spillage dealt with promptly Construction activities closely controlled
Regulatory			
Failure to have correct signs in place	Low	Moderate	Sign installers have knowledge of regulations



SECTION FIVE

Future Needs



CURRENT CAPACITY

Notwithstanding any traffic growth due to the number of vehicles per household increasing and people becoming more mobile, the existing roads have significant spare capacity. There has been minimal change in roughness indicating that the current road strength is sufficient for the existing volume of vehicles including heavy vehicles.

Significant change in heavy traffic in the urban area is not expected, as industrial development is zoned and therefore likely to occur close to the State Highway.

FUTURE DEMAND

Kawerau District is experiencing and is expected to continue to experience very low growth in demand for additional roading. A number of empty residential sections in the town, subdivided some years ago are still yet to be developed. Even if all these sections were occupied, the existing roading network would cope with the additional demand.

The boundary between Whakatane and Kawerau districts was adjusted in 2012 to create a new industrial park on SH34 opposite the existing mill site. Some industrial development is occurring as a result. The majority of any additional traffic would be on the state highway.

In response to the nationwide demand for housing, Council has very recently undertaken two new residential developments.

The industrial and residential developments will likely result in a small additional number of vehicles to the network however, the majority of any additional traffic will not significantly affect the existing network.

Any new roading infrastructure will either be constructed by the developer and vested in Council or built by Council and funded by the developer according to the financial contributions policy.

The GPS strategic priorities for transport are:

- Economic growth and productivity
- Road safety; and
- Value for money

Given the current population projection for the district and the fact that industrial growth associated with the mill is generally serviced by the state highway, the strategic priorities from the GPS that impact on the district's road assets are road safety, and value for money.

TRENDS

Population growth

In the 2013 census, the total population of the Kawerau District was 6,363, a decrease of 8.1% or 561 people since the 2006 census. Despite the predicted further decline, the 2018 census showed a growth of general population to 7,460. The Kawerau district estimated population according to the 2023 census is 7,820 which represented a 4.8% increase in population since 2018 or around 1% population growth per annum.

Council hopes to bolster these gains with economic development initiatives, such as the development of a new industrial park and promotion of the natural environment.

As is the case with the rest of New Zealand, the population is aging with an increasing fraction of the population receiving state funded superannuation and job seeker benefits.

The average income for the district when compared to the national average is expected to continue to decrease and there will be an increased requirement for external funding to maintain the infrastructure in the future.

Table 8: Statistics NZ Population Projections – Kawerau District

Projected Range	Population Change 2006–2043 (NZ Stats)							
	2006 Census	2013 Census	2018 Census	2023 Census	2028	2033	2038	2043
High					8,410	8,650	8,830	8,970
Medium	6,921	6,363	7,460	7,820	8,000	8,020	7,970	7,860
Low					7,610	7,410	7,140	6,800

Vehicle traffic

The number of traffic movements on roads is a measure of their use and trends in traffic volumes are indicators of growth. There is potential for a gradual return to smaller and more economical private transport vehicles due to increased cost of fuel. However, the effect of such changes on traffic volumes is likely to be negligible.

Commercial and industrial road use has the potential to impose higher and/or greater seasonal demands on the roading network, although this is not expected to occur in Kawerau.

Increasing numbers of vehicles per household, a tendency for more parents to drive children to school, additional activities, and generally becoming more mobile has driven the per-head demand for roads upwards. This in turn is tempered by fluctuating fuel charges and the desire to become healthier through using alternative modes of transport.

Council is involved in initiatives to encourage a change in driving behaviour and reduce vehicle usage through increased use of alternative modes of transport.

This is being done for environmental and community health reasons rather than reducing congestion.

Overall, the existing network has sufficient capacity to accommodate predicted changes in volume without any detectable impact.

Cycle traffic

There is one cycleway in the district installed and maintained by the large industries. It provides access to the industries from SH 34.

Council is involved in initiatives to encourage cycling as a health promotion activity. The existing roads are not heavily trafficked so additional cycle use on the roads could be accommodated. Also there is central government focus on proactive encouragement of active forms of transportation, opportunities have been identified to encourage cycling in the future.

Pedestrians

The existing network of footpaths has sufficient capacity to accommodate anticipated changes in use without any detectable impact.

Along with an increasing aged and physically challenged population, we are anecdotally witnessing an increase in mobility scooters and power chairs.

This increase has necessitated consideration of footpath widths in particular those in the main thoroughfares linking residential areas with the town centre, schools and industry.

Public transport – total mobility

There are limited school bus services that transport children to schools within and outside Kawerau.

There is a bus service part funded through Bay of Plenty Regional Council that connects Kawerau with surrounding areas. There is also a daily bus service to and from areas outside of Kawerau and a number of courtesy coaches run by clubs and hotels for patrons.

The existing network has sufficient capacity to accommodate predicted changes in volume without any detectable impact.

Alternatives to road transport

The only freight alternative to road transport in the district is the railway.

The rail line is currently used exclusively to convey timber, pulp and paper. Transporting the rail tonnage by road would have a significant impact on the State Highway.

Full utilisation of the railway corridor should be encouraged, not only to protect highways from greater wear and tear, but also to maintain a healthy competition between the competing modes of transport.

There is currently no use by passengers of the rail line, however there is potential for use in the future to link Kawerau with Tauranga and Mount Maunganui should demand present itself. There will be no negative impact to the roading network by any foreseen changes in road transport.

Road Safety

Road safety is an important consideration in the roading activity. Council participates in the Eastern Bay Road Safety Committee to help achieve road safety outcomes. The committee is focused on improving road safety in the Eastern Bay of Plenty by undertaking initiatives that are reviewed annually. The local initiatives are based on the New Zealand's road safety strategy 2010-2020,

Safe Roads and Roadsides - that are predictable and forgiving of mistakes. Their design encourages safe travel speeds.

During the course of the 2024/27 NLTP Council intends to continue its programme of installing traffic calming measures including speed humps (cushions) & raised pedestrian crossings in locations identified by staff, contractors and submissions from the public.

Safe Speeds - that suit the function and level of safety of the road. People drive to the nature of the road and the conditions, and they understand and comply with the speed limits.

Safe Vehicles - that prevents crashes and protects road users, including pedestrians and cyclists, in the event of a crash.

Safe Road Use - by road users who are skilled and competent, alert and unimpaired. They comply with road rules, take steps to improve safety, and expect safety improvements.

Council's main areas of focus are safe roads and roadsides, safe speeds and safe road use. The main activity is in education and working with at-risk groups.

The NZTA is a significant financial contributor to road safety and all programmes delivered are required to be approved by NZTA.

VALUE FOR MONEY

In terms of the strategic priorities of the GPS, the district's strategic priority is delivering value for money in the provision of services across its road network. This involves ongoing vigilance in managing the network to achieve the best whole of life costs while providing levels of service that fit the purpose of the individual roads making up the network.

Council's tactical approach to achieving this is outlined in the next section of this plan, "Lifecycle Management. Council committed to the implementation of the requirements of the ONRC.

NEW CAPITAL REQUIREMENTS

The Stoneham Park sports field is being developed into residential sections. New roads, footpaths and stormwater assets are being designed.

Any new land developments in the industrial park or any future residential development would see additional roads constructed by the developer and vested in Council or funded from Council's financial contributions policy.



SECTION SIX

Lifecycle Management



Asset definitions

The assets and components that make up the Kawerau District Road Network are described in the table below.

Table 9: Roading Assets

Asset	Description
Pavement Formation	The land between road reserve boundaries.
Pavement Structure	The crushed aggregate placed on the pavement formation (earth) and under the pavement surface.
Pavement Surface	The chip seal or hot mix material that vehicles run on.
Kerb and Channels	The concrete edging between the grassed berm and the pavement surface.
Footpaths	The concrete strip in the grassed berm for pedestrian to walk on.
Structures	Bridge, culverts and retaining walls.
Street Lighting	Street light, poles, brackets and underground cables.
Traffic Services	Painted lines on road, street signs, regulatory signs, posts, raised pedestrian crossings, speed humps and cushions.

Critical Assets

All roading data is recoded both in Excel spreadsheets as well as in the NZTA mandated RAMM database. A data validation project was undertaken by WSP in 2021 to verify the information contained in the RAMM database. Overall, the data was found to be reliable and therefore management concludes that there is a 99% accuracy of roading asset data.

Pavement formation

The land between road reserve boundaries is a roading asset. This land is vested in the Council and for state highways vested in the Government. The road reserve includes service lanes and pedestrian access ways, which are a feature in Kawerau's roading network.

Council may close a road and sell it, acquire additional land for road and may assign rights of occupation of parts of the road reserve for underground utilities etc., subject to appropriate legal processes and in accordance with statutes, primarily the Local Government Act.

Most road reserves in the district are 20 metres wide, but some are smaller. Several road reserves also have recreation reserve between the road reserve and the visible road reserve boundary, and therefore appear wider than they are.

Pavement surface

The pavement surface provides a smooth-riding, durable, skid-resistant wearing layer on which traffic travel. On sealed roads, it also

protects the pavement formation from the ingress of water.

Structures

Structures include one bridge, six culverts and several small retaining walls. The bridge is across the Tarawera River on Waterhouse Street (Reserve bridges are included in the Community Facilities and Property Asset Management Plan). It is single lane, has a concrete deck on steel girders and cannot carry HPMV vehicles.

Built in 1960, the bridge is 30 metres long. It is the main access to the Tarawera Falls and to the forest areas east of Kawerau.

Bridge traffic load is light. Heavy vehicles removing logs from the forest use an alternative private road (McKee Road).

There are six culverts of various diameters in the district, with a total length of 190 metres. They are located under River/Dump Road (two box culverts renewed in 2021); River/Fraser Street (pipe built 2020); Valley Road (Armco large built 1984), Bell Street (box culvert built 1970), Beattie Road (pipe built 1982) and farm entrance Valley Road (pipe built 2006).

Other Assets

Street lighting

There are currently 1,062 streetlights recorded in the district database. Some are attached to power poles not owned by Council. In these situations, only the lantern and bracket are treated as Council assets. These assets being separately identified for valuation and funding purposes.

Following projected land developments in both residential and industrial areas, it is anticipated that there will be a number of new assets to be vested in Council in the upcoming financial years.

Street lighting is provided in urban areas to support road traffic safety, assist pedestrian movement and safety, to be a deterrent to crime and to a lesser extent, to enhance the amenity of a neighbourhood.

Street lighting assets are individually recorded in Council's RAMM database.

Traffic services

Traffic services assets include traffic signs, road markings, guardrails, sight rails, amenity signs and other roading furniture owned by Council are currently recorded in RAMM and the asset register.

The purpose of traffic services assets is to provide advisory and regulatory information and/or physical guidance to all road users and to improve safety in the road environment. For speed, parking and other regulations to be enforceable, the signs must comply with the prescribed standard. Signs are therefore a key component in the road safety and enforcement partnership with the New Zealand Police and other Government Agencies.

Road sign assets along with their condition assessment and installation dates are recorded in RAMM. Assets found to be in a poor condition are programmed for replacement before the conclusion of the current NLTP.

Kerb and channel

The whole town has concrete kerb and channel on both sides of the sealed carriageway. Approximately 60% of the kerb and channel is one-piece slip formed. The other 40% was constructed using a combination concrete base and block backing or concrete base and then concrete backing. The concrete base and block backing kerbs have poor finish, weak concrete, collect dirt, grow weeds and look shabby.

Footpaths

Almost all roads have footpaths on both sides of the street. Footpaths are made of concrete, cobblestones, hotmix or chip seal, with most being concrete and a small section of chip seal. The town centre has cobblestones, concrete and some hotmix.

The surface of the concrete footpaths is sound. The problem is that tree roots lift sections of footpath causing unevenness. To rectify this, lifted sections are removed and replaced. In some instances, the offending tree is removed.

Approximately 30 percent of the town centre concrete footpaths were replaced in 1997. A further 20% was replaced in 2021-2022 and the remaining will be replaced in the 2025-27 period which will significantly improve the appearance of the town centre.

Maintenance Plan

Sealed Pavement

- Crack sealing
- Preventative maintenance on the wearing course.
- Localised pavement repairs, like dig outs, small areas of asphalt removal and relaying (hand work).
- Pavement failure repairs (other than potholes), i.e. Sink hole repairs
- Spraying chipseal road with lichen killer
- Potholes repaired as they occur.

Kerb and Channel

Spraying for weeds, removal of litter and sweeping grit from the channels is the maintenance undertaken.

Footpaths

Trip hazard elimination by either grinding or packing behind raised lips caused by tree root lifting as a temporary measure to provide the opportunity to programme section replacement of areas of multiple failures.

Structures

Maintenance requirements on the bridge are minimal (e.g. painting handrails, waterway clearance). The bridge is fully inspected on a two-yearly frequency with the waterway and general condition checked annually.

Maintenance of the culverts involves keeping the entrances clear of weeds and debris. Maintenance of the retaining wall involves replacing broken boards and removing graffiti.

Street lighting

Inspections are carried out weekly in-house along with the maintenance contractor undertaking a thorough patrol monthly. Lamp replacements, cleaning and other general maintenance are undertaken as faults are reported.

In addition, public complaints are attended to at least weekly with section outages attended to on the same day. Management of vegetation affecting street light performance occurs on an annual basis.

Traffic services

Road markings are re-painted annually. They are not treated as a capital item by Council, but are by NZTA. All road signs installed comply with the Manual of Traffic Signs and Markings. They are generally mounted on

white-painted timber or steel posts. The sign substrate (surface to be painted) panel may be aluminium or tough plastic sheet. Most signs have retro reflective properties.

Renewal/Replacement

Pavement formation/structure

Generally speaking, the pavement formation under the pavement structure does not deteriorate in Kawerau due to the quality of the soil (Tarawera ash) and low traffic loading (small number of heavy vehicles). Therefore, there is little demand to refurbish or replace the pavement formation.

Pavement structure is the basecourse, which goes on top of the formation and is under the pavement surface. The pavement structure has a life of 60-80 years but that is dependent on the condition of the pavement surface and traffic volumes. Roads requiring new pavement structure are identified and submitted for NZTA funding approval on a 3 yearly basis.

Pavement surface

The surface of a sealed road is regarded as a capital component because it is designed for a life expectancy in excess of one year, before it requires resealing.

There are several products that can be applied, including chip seals of various sizes; structural asphaltic concrete that also forms part of the pavement and bituminous slurry seals. Chip seals comprise by far the majority of Kawerau road surfaces.

Asphaltic concrete (or 'hotmix') is used selectively in special situations (roundabouts, parking areas, town centres) where chip seal does not perform well due to the scrubbing action of turning traffic or where a higher quality surface is required.

Normally resealing occurs because the bitumen is becoming brittle with age and is allowing water into the base course, rather than the surface wearing out. The life cycle used for bitumen roads is 15-18 years. This can vary from road to road depending on traffic volumes. The hotmix roads are expected to give 20 years of service.

The NZTA monitors the average reseal life of the network. Roads are selected for resealing due to ageing and visual condition of the current seal surface. Surface failure significantly influences the life of the pavement formation that is costly to replace.

Bitumen is a significant component of reseal costs. Increases in bitumen prices will influence future costs, as the annual reseal length must be maintained to ensure ongoing

road quality. Increasing the area of hotmix around the town improves the level of service, but at an increased cost. The resealing programme meets the requirement to keep the surface in a quality condition.

The 2024/27 NLTP funding programme including resealing at \$130,000 per year.

Kerbs and channels

The kerb and channel replacement programme began in 1992 and has been ongoing since then. Between 500 and 1000 metres is being replaced annually at current funding levels. This programme meets the requirement to maintain the kerb and channel in a good quality condition.

Footpaths

Council has undertaken a renewal programme to ensure that dangerous footpaths are replaced and they meet the needs of the community. The annual budget for footpath replacement in the 2025-34 LTP is \$60k to \$170K

There is a need to accommodate the increasing number of alternate forms of pedestrian transport modes (mobility scooters, power chairs etc.) and the corresponding requirement for them to share the footpath with foot traffic.

Council intends to begin increasing the width of the existing footpath network along key routes as part of programmed replacements.

Structures

Major works (bridge painting, wing wall replacement and total culvert replacement etc.) are included in the estimates when required. This work is carried out to sustain the integrity of the structures and achieve optimal whole of life costs. There is no planned significant renewal for roading structures within the scope of this AMP.

Street lighting

Street lighting asset renewals are as follows:

A programme was developed for the replacement of degraded poles and outreaches throughout the district. This programme of works continues with \$126,000 spread over the three years in the 2024/27 NLTP approved funding.

Following an unexpected announcement from Horizon Energy regarding the planned decommissioning of the Ripple Plant controlling the district's streetlights, Council has urgently developed a plan for the installation of photocell sensors. These installations will be undertaken during the current year. It is anticipated that this will save on costs and should be successfully completed prior to the decommissioning of the ripple plant.

Traffic services

Replacement of signs is often necessary due to damage rather than due to age.

The current funding available ensures replacement of signs occurs at the appropriate frequency.

full service potential of the asset is being maintained. Council policy is to avoid any deferred maintenance.

Disposal Plan

There are no disposals foreseen during the life of the Plan.

New Assets

Ongoing industrial/commercial development at the new industrial park on SH34 and future residential housing developments in town will require the construction of new roads and footpaths by the developers, to then be vested with Council.

Deferred Maintenance

Currently there is no known deferred maintenance with the roading network and the



SECTION SEVEN
Financial Forecasts



Future Requirements

Table 10: Financial Forecasts (including inflation)

	Estimate 2025-2026	Estimate 2026-2027	Estimate 2027-2028	Estimate 2028-2029	Estimate 2029-2030	Estimate 2030-2031	Estimate 2031-2032	Estimate 2032-2033	Estimate 2033-2034
Expenditure									
Personnel costs	172,245	177,850	182,804	187,607	192,080	196,242	200,405	204,408	208,250
Materials	358,994	367,232	393,438	422,448	453,015	482,663	513,452	545,140	578,107
Internal charges	233,430	239,610	245,790	251,310	256,600	261,890	267,180	272,470	277,550
Depreciation	1,410,897	1,416,905	1,536,165	1,541,990	1,547,815	1,660,428	1,665,883	1,671,524	1,780,617
Overheads	400,180	419,420	483,760	499,380	520,150	600,020	613,230	639,960	712,750
	2,575,746	2,621,017	2,841,957	2,902,735	2,969,660	3,201,243	3,260,150	3,333,502	3,557,274
Asset Renewals	543,177	555,026	763,624	774,811	780,522	1,051,213	1,062,616	1,068,223	1,367,310
	3,118,923	3,176,043	3,605,581	3,677,547	3,750,182	4,252,456	4,322,766	4,401,725	4,924,584

Table 11: Estimated Asset Renewals (in todays \$)

	Estimate 2025-2026	Estimate 2026-2027	Estimate 2027-2028	Estimate 2028-2029	Estimate 2029-2030	Estimate 2030-2031	Estimate 2031-2032	Estimate 2032-2033	Estimate 2033-2034
Reseals	188,100	188,100	228,600	228,600	228,600	281,250	281,250	281,250	349,695
K & C	84,030	84,030	84,030	84,030	84,030	84,030	84,030	84,030	84,030
Streetlights	40,500	41,270	82,540	82,540	82,540	165,080	165,080	165,080	247,620
Footpaths	58,100	59,160	88,740	88,740	88,740	133,110	133,110	133,110	159,732
Pavement	75,000	75,000	120,000	120,000	120,000	180,000	180,000	180,000	270,000
Stormwater / Services	95,000	95,000	38,564	98,500	98,500	102,350	102,350	102,350	106,585
	540,730	542,560	642,474	702,410	702,410	945,820	945,820	945,820	1,217,662

Funding Policy

Subsidised Portion of Activity

Roads and footpaths provide both public and private benefits but it is not possible for Council to determine the proportion of each or to charge each group of users. For these reasons, Council has assessed the subsidised portion of the activity as 100 percent public good.

Non-Subsidised Portion of Activity

Central government does not subsidise pavement surfaces and footpaths in the central business district. Therefore, unless a specific project gains the approval of NZTA by meeting particular criteria for special funding, it is treated as non-subsidised. Because the CBD area is a focal point for the whole community, the whole community benefits. This portion of the activity has therefore also been assessed as 100 percent public good.

Table 11: Funding Sources for Roading

	2024/ 2025	2025/ 2026	2026/ 2027
Subsidised portion			
Government (NZTA)	75%	75%	75%
General rates	25%	25%	25%
Non-subsidised portion			
General rates	100%	100%	100%

VALUATION

The roading network infrastructure is valued on a three-yearly cycle. Assets are valued at fair value determined on a depreciated replacement cost basis. The most recent revaluation is at 30 June 2022.

Asset basis of valuation

Replacement Cost Today's cost of replacing the asset with the same or a similar asset and depreciated over the life of the asset.

Optimised Depreciated Replacement Cost

Today's cost of replacing the asset with another asset which provides the same level of service (or a lesser level of service if demand has reduced) most efficiently and depreciated over the life of the asset to reflect its current value and remaining economic life.

The replacement cost assigned to each asset has been determined by suitably qualified and

experienced professional persons and has been peer reviewed.

Expenses

Maintenance and operating costs are expensed in the year they are accrued. The capitalisation threshold for roading assets has been set at \$500 or the actual value of individual components where they are identified in the asset register.

Changes in asset valuation

The costs associated with renewing assets and providing new or improved asset infrastructure are capitalised and depreciated in accordance with the assessed economic life of each asset. This applies also, where a developer provides infrastructure to be vested as public assets by Council.

Capitalisation threshold

The following definitions are used for asset management purposes and the financial treatment is summarised below:

Maintenance is work done that is of an operational nature that can contribute to the asset life reaching its maximum potential but neither increases the value nor extends the remaining life of any asset.

Renewal is work done to replace an existing asset and recorded in the asset register. The cost of replacement must be greater than \$500 and is a capital expenditure recorded in the asset register as a new asset and uniquely identified.

If the asset replaced is discarded or sold, it is removed from the asset register and any residual value must be formally written off.

An addition to the asset register is required when a new asset is created with a value exceeding \$500. A new asset must be uniquely identified, and recorded in the asset register. The record in the asset register requires an assessment of the asset's remaining life expectancy (based on straight-line depreciation or estimated remaining life).

Where the asset register recognises an individual component worth less than \$500, the threshold does not apply and the additional value is capitalised.

Key Assumptions

The current valuation and renewal profiles are based on data currently available.

Asset condition

In the case of the roading network, the condition is taken as being directly related to age, unless better information is available.

The roughness and visual inspections provide information on the road deterioration.

Replacement cost

The projected replacement costs and depreciated values shown in the table below have been derived from Council's asset register.

Table 12: Replacement Costs

Asset Type	GRC (Gross Replacement Cost) 2022 (\$000)	ODRC (Optimised Depreciated Replacement Cost) 2022 (\$000)
Pavement Formation	2,199.7	2,199.7
Pavement Structure	14,569.4	5,052.9
Pavement Surface	6,693.5	2,445.4
Kerbs and Channels	9,719.4	5,010.8
Footpaths	13,282.6	6,161.6
Structures	2,085.0	1,161.5
Street Lighting	4,177.1	1,557.1
Traffic Services	720.3	419.0
TOTAL	\$53,447.0	\$24,008.0

Depreciated value and life expectancy

Straight-line depreciation has been adopted for all assets. The life expectancies used to calculate depreciation are shown in the table below.

Table 13: Asset Life Expectancies

Asset	Average Life Expectancy (Years)
Street Lighting	12
Street Lighting – Cabling	30
Street Lighting - Poles	60
Kerb and Channel	100
Footpaths	80
Pavement Surface	13 - 20
Pavement Structure	60-80
Bridge	80
Carparks	13
CCTV	7
Minor safety	15

Population

Further sustained decline in population as predicted by Statistics New Zealand may erode the rating base of the District, placing a higher burden on the remaining ratepayers for infrastructure replacement. Population trends are reviewed as frequently as reliable data can be obtained.

Other assumptions

All expenditure is stated in 2023 values, with allowance made for the inflation over the planning period.

All costs are GST exclusive.

Operational costs are generally shown to increase in relation to inflation.

Renewal costs are based on anticipated replacement requirements.

The costs of insurance and risk mitigation are included in the forecasts.

Climatic and other environmental trends are expected to continue as they have in the past.

The plan provides scope for some growth in industrial/commercial demand.

Development Contributions /Financial Contributions

Section 102 of the Local Government Act requires a local authority to adopt a development contributions or financial contributions policy.

There is spare capacity in Council's infrastructure that means it can cope with some growth without a resulting increased demand for services.

Therefore, Council does not need to extend infrastructure to cope with increasing demand.

Council's policy is to retain the provisions of the District Plan that allow the assessment of financial contributions rather than assess development contributions under the LGA.

Financial contributions

New subdivisions or developments may require the extension of Council infrastructure networks for water supply, wastewater disposal and roading.

Council's financial contributions policy provides that the cost of these extensions is the responsibility of those who create the demand.

Developers may be required to make financial contributions to meet the full cost of additional infrastructure necessary to support their subdivision or development.



SECTION EIGHT

Asset Management Systems & Processes



Responsibilities for Asset Management Outcomes

The Roading and Facilities manager is responsible for the development of this asset management plan, including maintaining the integrity of Council's asset information, communicating Council's future projects and meeting the obligations for funding of NZTA.

The Roading and Facilities manager is also responsible for the identification, planning, programming and undertaking of works required for the maintenance and development of Council's roading assets.

The Group Manager, Finance & Corporate Services is responsible for providing an overview of the development of this asset management plan, for ensuring that future projects are incorporated in Council's Long Term Plan and that there is consistency between these documents.

The Group Manager, Operations and Services is responsible for delivering the outcomes for the roading activity. This includes ensuring that the assets are maintained and operated to Council's requirements, that adequate budgeting for maintenance, operating and improvement costs are provided.

Accounting and Asset Management Systems

Billing/accounting system

Council uses the Ozone software for its accounting and billing systems. It does not store or compute asset management information.

All formal asset management financial reporting/budgets including valuation is currently held in Excel spreadsheets.

Procurement strategy

All procurement to replace, add new or maintain roading assets will be done according to the Kawerau District Council Procurement Policy and Council's Roading Procurement Strategy updated in April 2023 and formally endorsed by NZTA in May 2023.

Procurement opportunities are utilised when available in order to reduce costs and improve efficiency of the procurement process. For example, the street light LED upgrade was done in collaboration with the Whakatane District Council and the purchase of luminaries was done in bulk which resulted in significant savings.

Electronic Storage of Asset Data

Currently, roading information required to meet NZTA requirements is stored on RAMM (see below). Not all the information about the roading network is currently stored electronically.

Road Assessment and Maintenance Management system (RAMM)

Central Government adopted RAMM in the 1990s as the accepted roading information management software. Since that time, Council has stored roughness rating surveys, re-seal, pavement and streetlight data in RAMM.

A significant data validation project was undertaken by WSP in 2021 on Council's street light network to ensure that all data relating to the roading activity in Kawerau was complete and accurate. This is a continuous improvement project with processes in place to ensure accurate data moving forward.

Pavement

Pavement structure information is currently stored in Excel spreadsheets and recently RAMM. As future work is undertaken it will be updated both in RAMM and Excel spreadsheets.

Surfaces

Surface information is currently stored in Excel spreadsheets and RAMM. As future work is undertaken it will be updated both in RAMM and Excel spreadsheets.

Structures

Structures (bridge & culverts) information is currently stored in Excel spreadsheets. This information is programmed to be entered and stored in RAMM as works are undertaken for future programming.

Street lighting information

Information about the street lighting is being entered into RAMM, both as part of the data validation project or as maintenance work on the lights is undertaken. This information will continue to be entered and stored in RAMM for future work programming.

Traffic services

No electronic information is currently held on these assets. This information will be entered and stored in RAMM for future work programming.

As-built processes and asset management form

Renewals, replacements and additions to roading assets are included in the asset register. However, it is undertaken annually rather than as it occurs. It is planned in future to update the information on asset renewals, replacements and additions as they happen. This will be done in RAMM with the exception of Stormwater which is kept and maintained in AssetFinda.

Hard copy plans

Council holds plans for all roads developed since 1995, and there are some plans of roads developed prior to this. It is intended the relevant plans will be archived and the asset information stored electronically as a part of Council's data

validation and broader Records Management Upgrade projects.

Key Information Flows and Processes

Key information flows and process linkages include:

- Translating the Community Outcomes into detailed levels of service that can be embodied into Asset Management Plans
- Preparation of annual budgets and ongoing reporting
- Ongoing compliance monitoring and reporting of environmental performance
- Ongoing management of the asset to ensure that service levels are maintained

Performance & Condition Monitoring

Performance monitoring programmes include:

- Annual measuring of road surface roughness
- Updating of roughness data in the RAMM programme in conformity with NZTA requirements
- Updating reseal data in RAMM annually
- Periodic measurement of traffic flows at established sites to provide data for the computation of benefit cost ratios and traffic growth trends
- Compliance with performance measures as specified for Road Controlling Authorities to deliver under the ONRC are continuing to be addressed. These performance measures are intended to provide a level of service in keeping with the classification of road and set technical outcome measures for the provision of roading infrastructure.
- Accident monitoring/reporting
- Contractor/staff performance (includes safety, hazard identification and environmental performance).

Policies for renewing assets

Renewal of components in the network with larger components to improve capacity are

treated as renewal capital expenditure (instead of “improved level of service”). This is because additional capacity cost of the larger component is not material compared to renewal cost of same sized component.

Constructing new assets

There has been little demand for additional capacity for many years. Recent nationwide housing demand pressures are incentivising the creation of additional housing developments across the country resulting in additional related infrastructure. This prompted Council to initiate the development of two residential subdivisions, one specifically designed for retirees, both completed in 2022. Council is now in the planning phase of a further residential subdivision.

Economic downturn has also prompted both local and central government to focus on economic development incentives and projects that has seen significant public funding invested in private commercial enterprise.

Funding to provide additional capacity is treated on its merits, but in most cases, the funding would be sought from the developers.

Assets vested in Council

Subdivisions, both industrial and residential include roading networks. These are installed at the developer's expense to approved Council standards and then vested in Council.

‘As built’ new works occur either due to subdivisions, or the installation of new assets. In both instances, detailed records of new works are obtained. These new assets are added to the asset register.

Asset disposal

Most of the components are essential to continuing provision of the service. Extensive decommissioning and disposal is very unlikely.



SECTION NINE

Monitoring Improvement Planning



Asset Management Performance Measures

The broad objectives of asset management are:

- To optimise the life of the assets
- To minimise life cycle costs
- To maintain agreed levels of service

Improvement Actions

Table 14: Improvement Actions

Improvement Item	Comment	By When	By Whom	Cost
Add Streetlight information to RAMM	RAMM Data Validation programme	Completed 2022	ACM Contractor (WSP)	
Add Pavement (surface & structure) information to RAMM	RAMM Data Validation programme	Completed 2024	ACM Contractor (WSP)	
Add Footpath and Kerb & Channel information to RAMM	RAMM Data Validation programme	Completed 2024	ACM Contractor (WSP)	
Add Traffic Services information to RAMM	RAMM Data Validation programme	Programmed 2025	RFM	
Add Structures information to RAMM	RAMM Data Validation programme	Programmed 2025	RFM	
Complete Pavement Structure information into RAMM	RAMM Data Validation programme	Programmed 2024	RFM Contractor (WSP)	\$2,000
Input asset replacement costs into RAMM	Resource engaged	Annually	RFM	

ACM = Assets and Contracts Manager

RFM = Roading and Facilities Manager

ONRC and ONF

The NZTA developed the One Network Road Classification (ONRC). This was established as a functional classification for roads that is to be applied nationally with the intention of ultimately providing the road users a more consistent experience.

The ongoing work to evolve the ONRC to a new One Network Framework (ONF) aims to align the ONRC more closely with Central Government's outcomes focus areas of greater livability and prosperity through a 'Movement and Place' approach. The intention being to move away from simply focusing on 'roads, cars & trucks' to the broader question of how people get from one place to another in the context of community wellbeing, economic activity and growth.

The system provides customer and performance levels of service pertinent to the road

classification involved. It is to be utilised by Road Controlling Authorities (RCA) to provide performance and costing information by classification.

Monitoring and Review Procedures

The two main measures used to grade the roading network are the 'road condition rating' and 'road roughness'. The two provide a standardised measure of the status of discrete sections of roading and the RAMM treatment selection programme uses this information to give a first order prioritisation and appropriate treatment for deficient sections. The information provides a very useful 'first cut' for priority works when the forward roading programme is being prepared.

Road roughness is a reproducible measure of the riding quality of the road. All roads in the

district are roughness surveyed each year. It is measured by a standardised vehicle and is expressed in 'NAASRA' units that are a measure of the vertical displacements of the vehicle relative to the road. The higher the NAASRA units – the rougher the road is. A newly constructed road would generally have a roughness of <70. The higher the roughness, the more likely the road is in need of rehabilitation.

Condition indicators include seal cracking, pot-holing, edge break, rutting, shoving, scabbing, flushing, drainage and shoulder condition. In

urban areas, the roughness may be due to trenches, manholes, fire hydrants and the like, so a visual inspection is required to verify if failure is occurring before programming in rehabilitation.

The Group Manager Operations and Services will monitor and review improvement items on a six monthly basis. This plan will be reviewed annually as part of annual plan development.



SECTION TEN

Appendices



APPENDIX A – DETAILED ASSET DESCRIPTION

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
STREET LIGHTING			Number	
Street Lights - various	LED 17 W Under Verandah	Luminary	154	2016
	LED 29 W	Luminary	385	2015-23
	LED 67 W	Luminary	317	2015-21
	LED 80 W	Luminary	6	2015-19
	LED 100 W	Luminary	55	2015-19
	LED 150 W Town Centre	Luminary	16	2015-17
	LED 200 W, Pools	Luminary	4	2019
	CABLING UNDERGROUND	Cabling	9,400	1985
	STREET POLES (6-8M)	Pole	405	1970
	STREET POLES (6-8M)	Pole	24	2006
	STREET POLES (8-18M)	Pole	35	1970
	STREET POLES (8-18M)	Pole	12	2022
	ROOF FITTINGS	Fitting	154	1970
	LIGHTING ARMS	Pole attachment	598	1970
FOOTPATHS			m ²	
Footpaths - various	Zone 1	Concrete	27,221	1957
	Zone 1	Concrete	235	2001
	Zone 1	Concrete	1,338	2002
	Zone 1	Concrete	3,000	2003
	Zone 1	Concrete	364	2009
	Zone 1	Concrete	362	2010
	Zone 1	Concrete	11,000	2011-20
	Zone 1	Concrete	2,847	2021-22
	Zone 1	Concrete	1,433	2023-24
	Zone 2	Concrete	12,447	1965
	Zone 2	Concrete	168	2002
	Zone 2	Concrete	300	2003
	Zone 2	Concrete	120	2008
	Zone 2	Concrete	423	2009
	Zone 2	Concrete	309	2010
	Zone 2	Concrete	481	2017-20
	Zone 2	Concrete	436	2022
	Zone 3	Concrete	10,385	1973
	Zone 3	Concrete	189	2001
	Zone 3	Concrete	193	2002
	Zone 3	Concrete	300	2003
	Zone 3	Concrete	98	2008
	Zone 3	Concrete	345	2009
	Zone 3	Concrete	252	2010
	Zone 3	Concrete	677	2017-21
	Zone 4	Concrete	10,199	1978
	Zone 4	Concrete	10	2001
	Zone 4	Concrete	508	2002
	Zone 4	Concrete	1,200	2003
	Zone 4	Concrete	127	2008
	Zone 4	Concrete	446	2009
	Zone 4	Concrete	325	2010

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
	Zone 4	Concrete	3,934	2014-22
	Zone 5	Concrete	6,006	1985
	Zone 5	Concrete	175	2002
	Zone 5	Concrete	600	2003
	Zone 5	Concrete	76	2008
	Zone 5	Concrete	267	2009
	Zone 5	Concrete	195	2010
	Zone 5	Concrete	1,986	2014-22
	Zone 5	Concrete	169	2024
	New Sections	Concrete	2,834	1998-07
	Tree root affected footpaths	Concrete	5,428	1999
	Massey Street Walkway	Concrete	86	2011
	Cobblestones - CBD	Concrete	606	2011-18
KERBS & CHANNELS			<u>Metres</u>	
Kerb and channel - various	Zone 1	Concrete	26,545	1957
	Fergusson St - 287m (Zone 1)	Concrete	287	2001
	Bowen St - 183m (Zone 1)	Concrete	183	2001
	Onslow & Grey St - 445m (Zone 1)	Concrete	675	2001-03
	Mackenzie St - 450m (Zone 1)	Concrete	650	2002-03
	Vogel St - 70m (Zone 1)	Concrete	70	2003
	Zone 1	Concrete	5,234	2010-22
	Zone 2	Concrete	10,580	1965
	Zone 2	Concrete	107	2022
	Zone 2	Concrete	450	2023
	Zone 3	Concrete	8,799	1973
	Zone 3	Concrete	378	2022
	Zone 4	Concrete	10,300	1978
	Zone 5	Concrete	8,915	1985
	Zone 5 – Beattie Road	Concrete	218	2017
	Plunket St - 30m (Zone 6)	Concrete	30	2003
	New Sections – All Zones	Concrete	2,400	1999
	New sections –All Zones	Concrete	1,500	2006
	Kerbs- District wide	Concrete	1	1981
ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
PAVEMENT SURFACE			<u>m²</u>	
Seal - various	ATKINSON STREET	Chip Seal	1,854	2001
	BALLANCE STREET	Chip Seal	3,600	2000
	BALLANTRAE	Chip Seal	2,800	1991
	BALLANTRAE	Chip Seal	500	1991
	BEATTIE ROAD	Chip Seal	2,300	2016
	BEATTIE ROAD	Chip Seal	6,200	2016
	BELL STREET	Chip Seal	933	2001
	BELL STREET	Chip Seal	3,319	2001
	BELL STREET	Chip Seal	3,215	2001
	BLEDISLOE STREET	Chip Seal	1,000	2017
	BLUNDELL AVENUE	Chip Seal	1,600	2012
	BOSS ROAD	Chip Seal	1,300	2011
	BOWEN STREET	Chip Seal	2,400	2017
	BROWNE STREET	Chip Seal	600	2011
	COATES ST	Chip Seal	230	2016

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
PAVEMENT SURFACE	COATES ST	Chip Seal	720	1999
	COBHAM DRIVE	Chip Seal	1,600	2013
	COBHAM DRIVE	Chip Seal	2,000	2013
	COBHAM DRIVE	Chip Seal	1,700	2013
	DELAMERE DRIVE	Chip Seal	1,500	2015
	DELAMERE DRIVE – Cul de Sac	Chip Seal	283	2015
	DIPPIE PLACE	Chip Seal	400	2016
	DOMETT STREET	Chip Seal	5,600	2004
	DOUG WILSON CRES	Chip Seal	600	2016
	DUMP ROAD	Chip Seal	400	1998
	DUMP ROAD	Chip Seal	2,120	1971
	DUMP ROAD	Chip Seal	1,840	2020
	EMME ALLAN ROAD	Chip Seal	1,000	2015
	FENTON MILL RD (SOUTH)	Unsealed	0	1981
	FENTON MILL RD (SOUTH)	Chip Seal	2,000	2012
	FENTON MILL ROAD	Chip Seal	11,000	2012
	FENTON MILL ROAD	Chip Seal	2,180	2012
	FENTON MILL ROAD	Asphalt	1,220	2022
	FENTON STREET	Chip Seal	1,600	1988
	FENTON STREET	Chip Seal	5,500	2004
	FERGUSON STREET	Chip Seal	700	2016
	FITZGERALD STREET	Chip Seal	2,000	2004
	FITZROY STREET	Chip Seal	800	2011
	FLETCHER AVENUE	Chip Seal	6,294	2006
	FLETCHER AVENUE	Chip Seal	1,408	1995
	FLETCHER AVENUE	Chip Seal	754	2022
	FLETCHER AVENUE	Asphaltic	1,600	2006
	FLETCHER AVENUE	Chip Seal	144	2005
	FORBES PLACE	Chip Seal	900	2011
	FORSAITH STREET	Chip Seal	2,000	2016
	FOX STREET	Chip Seal	837	2002
	FRASER STREET	Chip Seal	700	2009
	FREYBERG STREET	Chip Seal	1,000	2004
	GALWAY STREET	Chip Seal	6,456	2002
	GLASGOW STREET	Chip Seal	3,740	1992
	GORDON STREET	Chip Seal	2,200	2018
	GREY STREET	Chip Seal	5,500	2008
	HADLEY STREET	Chip Seal	1,400	1995
	HADLEY STREET	Chip Seal	1,862	2015
	HAHURU ROAD	Chip Seal	1,100	2012
	HALL STREET	Chip Seal	3,328	2001
	HARDIE AVENUE	Chip Seal	2,500	1998
	HARDIE AVENUE	Chip Seal	4,000	2016
	HARDIE AVENUE	Chip Seal	3,000	2016
	HAY PLACE	Chip Seal	500	2016
	HINEMOTU AVENUE	Chip Seal	2,400	2004
	HOBSON STREET	Chip Seal	2,600	2008
	HOLLAND CRESCENT	Chip Seal	1,000	2013
	HOLYOAKE CRESCENT	Chip Seal	4,500	2000
	ION ROAD	Chip Seal	2,000	2012

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
	ISLINGTON STREET	Asphaltic	3,000	2014
PAVEMENT SURFACE	JERVOIS STREET	Chip Seal	600	2019
	JULIAN ROAD	Chip Seal	900	2015
	KIRK CRESCENT	Chip Seal	2,025	2001
	LIVERPOOL STREET	Chip Seal	1,700	1990
	LIVERPOOL STREET	Chip Seal	2,500	1990
	MACKENZIE STREET	Chip Seal	1,000	2004
	MACKENZIE STREET	Chip Seal	1,200	2004
	MANUKORIHI STREET	Chip Seal	475	1956
	MANUKORIHI STREET	Chip Seal	1,320	2008
	MANUKORIHI STREET	Chip Seal	855	2022
	MARSHALL STREET	Chip Seal	1,100	2012
	MARSHALL STREET	Chip Seal	350	2012
	MASSEY STREET	Chip Seal	2,000	2021
	MASSEY STREET	Chip Seal	3,300	2021
	MAWAKE ROAD	Chip Seal	1,300	2012
	NEELY PLACE	Chip Seal	700	2011
	NEWELL STREET	Chip Seal	6,892	2002
	NORMANBY STREET	Chip Seal	2,800	1991
	NORRIE STREET	Chip Seal	1,500	2004
	ONSLow STREET	Chip Seal	3,000	2013
	ONSLow STREET	Chip Seal	9,767	2001
	ONSLow STREET	Chip Seal	850	2013
	ONSLow STREET	Asphaltic	533	2014
	OPUNOKI DRIVE	Chip Seal	547	2001
	OWEN ROAD	Chip Seal	1,000	2015
	PAORA STREET	Chip Seal	1,350	1956
	PARIMAHANA DRIVE	Chip Seal	700	2015
	PARIMAHANA DRIVE	Chip Seal	700	2015
	PAYNE CRESCENT	Chip Seal	567	2001
	PETER LIPPA DRIVE	Chip Seal	5,270	1995
	PETER LIPPA DRIVE	Chip Seal	7,090	2015
	PIRIPIRI CRESCENT	Chip Seal	2,124	2020
	PLUNKET STREET	Asphaltic	1,000	2012
	PLUNKET STREET	Asphaltic	1,500	2008
	PLUNKET STREET	Asphaltic	1,500	2009
	PLUNKET STREET	Asphaltic	1,500	2010
	POLLEN STREET	Chip Seal	3,311	2001
	PORRITT DRIVE	Chip Seal	7,038	2021
	RAMSDEN PLACE	Chip Seal	300	2016
	RIVER ROAD	Chip Seal	9,163	2015
	RIVER ROAD	Chip Seal	9,800	2009
	RIVER ROAD	Chip Seal	2,600	2009
	RIVER ROAD	Chip Seal	2,257	1997
	RIVER ROAD	Chip Seal	1,043	2022
	RIVER ROAD	Chip Seal	3,278	2015
	RIVER ROAD	Chip Seal	1,600	1997
	RIVER ROAD	Chip Seal	1,100	1997
	RIVER ROAD	Chip Seal	2,200	2024
	RIVER ROAD	Chip Seal	3,520	1991

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
	RIVER ROAD	Chip Seal	6,270	2010
PAVEMENT SURFACE	RIVER ROAD	Chip Seal	4,895	2010
	ROBINSON STREET	Chip Seal	2,600	2019
	ROBINSON STREET	Chip Seal	400	2019
	RYDER PLACE	Chip Seal	2,000	1996
	RYDER PLACE	Chip Seal	1,952	2015
	RYDER PLACE	Chip Seal	1,119	2015
	SAVAGE STREET	Chip Seal	584	2001
	SEDDON STREET	Chip Seal	370	2000
	SEWELL STREET	Chip Seal	600	2018
	SHEPHERD ROAD	Chip Seal	800	2016
	SHORT STREET	Chip Seal	600	2016
	SPENCER AVENUE	Chip Seal	3,865	2002
	SPENCER AVENUE	Chip Seal	1,000	2015
	SPENCER AVENUE	Chip Seal	2,580	2019
	SPENCER AVENUE	Chip Seal	2,200	2019
	STAFFORD STREET	Chip Seal	807	2002
	STOUT STREET	Chip Seal	739	2001
	SYME CRES	Chip Seal	2,300	1996
	SYME CRES	Chip Seal	600	1996
	SYME CRES	Chip Seal	1,722	2015
	SYME CRES	Chip Seal	661	2015
	SYME CRES	Chip Seal	801	2015
	TE ARIKI PLACE	Chip Seal	700	2004
	TIWHATIWHA CRESCENT	Chip Seal	2,920	2020
	TUWHARETOA	Chip Seal	3,600	2011
	VALLEY ROAD	Chip Seal	1,800	2012
	VALLEY ROAD	Chip Seal	6,100	1993
	VALLEY ROAD	Chip Seal	9,941	1994
	VALLEY ROAD	Chip Seal	3,900	1996
	VALLEY ROAD	Chip Seal	2,200	1996
	VOGEL STREET	Chip Seal	3,500	2000
	WALTER NASH AVENUE	Chip Seal	2,250	2000
	WARD STREET	Chip Seal	3,947	2001
	WATERHOUSE STREET	Chip Seal	2,025	2001
	WELD STREET	Chip Seal	1,700	1990
	WELD STREET	Chip Seal	400	1990
	WHITTAKER STREET	Chip Seal	1,060	2002
	WINDLEY PLACE	Chip Seal	1,400	1995
	WINDLEY PLACE	Chip Seal	1,335	2015
	WINDLEY PLACE	Chip Seal	530	2015
	SERVICE LANES	Chip Seal	4,900	1995
	SERVICE LANES	Chip Seal	2,300	1995
	SERVICE LANES	Chip Seal	1,400	1985
	SERVICE LANES	Chip Seal	711	2001
	SERVICE LANES	Chip Seal	1,500	1993
	SERVICE LANES	Chip Seal	1,200	2001
	CARPARKS	Chip Seal	2,400	2006
	CARPARKS	Chip Seal	1,670	1998
	CARPARKS	Chip Seal	6,485	2017

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
	CARPARKS	Chip Seal	3,750	2022-24
PAVEMENT SURFACE	CARPARKS	Chip Seal	4,400	1992
	CARPARKS	Chip Seal	300	1998
	CARPARKS	Chip Seal	1,700	2004
	CARPARKS	Chip Seal	1,500	2001
	CARPARKS	Chip Seal	11,545	2019
	CARPARKS	Chip Seal	450	2001
	CARPARKS	Chip Seal	870	2010
	CARPARKS	Chip Seal	330	2001
	CARPARKS	Chip Seal	4,400	1985
	CARPARKS	Chip Seal	5,200	2012
	CARPARKS	Chip Seal	450	1997
	CARPARKS	Chip Seal	300	1970
	CARPARKS	Chip Seal	1,200	1997
	CARPARKS	Chip Seal	200	1970
	CARPARKS	Chip Seal	4,590	2018
	CARPARKS	Chip Seal	806	2001
	CARPARKS	Chip Seal	1,792	2019
	CARPARKS	Chip Seal	600	2002
	CARPARKS	Chip Seal	1,000	1990
	CARPARKS	Chip Seal	1,634	2019
	CARPARKS	Chip Seal	1,260	1965
	CARPARKS	Chip Seal	400	2021
	CARPARKS	Chip Seal	1,378	2005
	CARPARKS	Chip Seal	250	1975
	CARPARKS	Chip Seal	200	1970
	CARPARKS	Chip Seal	214	2001
	CARPARKS	Chip Seal	233	2011
	WALKWAY	Chip Seal	900	2001
	WALKWAY	Chip Seal	3,222	2017
	WALKWAY	Chip Seal	3,029	2024
	BELL STREET	Asphaltic	209	1992
	FLETCHER AVENUE	Asphaltic	292	1990
	MACKENZIE STREET	Asphaltic	643	1988
	MANUKORIHI DRIVE	Asphaltic	408	1991
	MASSEY STREET	Asphaltic	254	1980
	MASSEY STREET	Asphaltic	669	2011
	MASSEY STREET	Asphaltic	708	2012
	MASSEY STREET	Asphaltic	862	1980
	RIVER ROAD SLIP LANE	Asphaltic	201	1991
	SHORT STREET	Asphaltic	734	1983
	SPENCER AVENUE	Asphaltic	308	1989
	VALLEY ROAD	Asphaltic	270	1986
	VALLEY ROAD	Asphaltic	176	1993
	VALLEY ROAD	Asphaltic	201	1993
	VALLEY ROAD ROTARY	Asphaltic	488	1993
	INTERSECTION RENEWALS	Asphaltic	1	2020

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Pavement Structure				
	ATKINSON STREET	Basecourse	1,854	1958
	BALLANCE STREET	Basecourse	3,600	1958
	BALLANTRAE	Basecourse	2,800	1972
	BALLANTRAE	Basecourse	500	1972
	BEATTIE ROAD	Basecourse	2,300	1983
	BEATTIE ROAD	Basecourse	6,200	1984
	BELL STREET	Basecourse	900	1967
	BELL STREET	Basecourse	3,200	1960
	BELL STREET	Basecourse	3,100	1965
	BLDISLOE STREET	Basecourse	1,000	2017
	BLUNDELL AVENUE	Basecourse	1,600	1976
	BOSS ROAD	Basecourse	1,300	1977
	BOWEN STREET	Basecourse	2,400	2017
	BROWNE STREET	Basecourse	600	1956
	COATES ST	Basecourse	950	1958
	COBHAM DRIVE	Basecourse	1,600	1966
	COBHAM DRIVE	Basecourse	2,000	1966
	COBHAM DRIVE	Basecourse	1,700	1967
	DELAMERE DRIVE	Basecourse	1,500	1981
	DIPPIE PLACE	Basecourse	400	1984
	DOMETT STREET	Basecourse	5,600	1956
	DOUG WILSON CRES	Basecourse	600	1984
	DUMP ROAD	Basecourse	400	1971
	DUMP ROAD	Basecourse	3,960	1971
	EMME ALLAN ROAD	Basecourse	1,000	1982
	FENTON MILL RD (SOUTH)	Basecourse	7,215	1981
	FENTON MILL RD (SOUTH)	Basecourse	2,000	1981
	FENTON MILL ROAD	Basecourse	11,000	1972
	FENTON MILL ROAD	Basecourse	3,400	1975
	FENTON STREET	Basecourse	1,600	1956
	FENTON STREET	Basecourse	5,500	1956
	FERGUSON STREET	Basecourse	700	2016
	FITZGERALD STREET	Basecourse	2,000	2019
	FITZROY STREET	Basecourse	800	1956
	FLETCHER AVENUE	Basecourse	8,200	1959
	FLETCHER AVENUE	Basecourse	2,000	2021
	FORBES PLACE	Basecourse	900	1972
	FORSAITH STREET	Basecourse	2,000	2016
	FOX STREET	Basecourse	600	1956
	FRASER STREET	Basecourse	700	1965
	FREYBERG STREET	Basecourse	1,000	1956
	GALWAY STREET	Basecourse	6,300	1956
	GLASGOW STREET	Basecourse	2,240	1964
	GLASGOW STREET	Basecourse	1,500	2022
	GORDON STREET	Basecourse	2,200	2018
	GREY STREET	Basecourse	5,500	1956
	HADLEY STREET	Basecourse	1,400	1980
	HAHURU ROAD	Basecourse	1,100	1980
	HALL STREET	Basecourse	3,328	1958

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Pavement Structure	HARDIE AVENUE	Basecourse	2,500	1982
	HARDIE AVENUE	Basecourse	4,000	1982
	HARDIE AVENUE	Basecourse	3,000	1983
	HAY PLACE	Basecourse	500	1984
	HINEMOTU AVENUE	Basecourse	2,400	1965
	HOBSON STREET	Basecourse	2,600	1956
	HOLLAND CRESCENT	Basecourse	1,000	1967
	HOLYOAKE CRESCENT	Basecourse	4,500	1967
	ION ROAD	Basecourse	2,000	1977
	ISLINGTON STREET	Basecourse	3,245	1956
	JERVOIS STREET	Basecourse	600	2019
	JULIAN ROAD	Basecourse	900	1983
	KIRK CRESCENT	Basecourse	2,025	1975
	LIVERPOOL STREET	Basecourse	1,700	1956
	LIVERPOOL STREET	Basecourse	2,500	1964
	MACKENZIE STREET	Basecourse	1,000	1961
	MACKENZIE STREET	Basecourse	1,200	1957
	MANUKORIHU STREET	Basecourse	1,795	1956
	MARSHALL STREET	Basecourse	1,100	1976
	MARSHALL STREET	Basecourse	350	1976
	MASSEY STREET	Basecourse	2,000	1961
	MASSEY STREET	Basecourse	3,300	1957
	MAWAKE ROAD	Basecourse	1,300	1980
	NEELY PLACE	Basecourse	700	1977
	NEWELL STREET	Basecourse	6,800	1956
	NORMANBY STREET	Basecourse	2,800	1956
	NORRIE STREET	Basecourse	1,500	1956
	ONSLow STREET	Basecourse	3,000	1956
	ONSLow STREET	Basecourse	9,767	1956
	ONSLow STREET	Basecourse	533	2014
	ONSLow STREET	Basecourse	850	1958
	OPUNOKI DRIVE	Basecourse	500	1965
	OWEN ROAD	Basecourse	1,000	1983
	PAORA STREET	Basecourse	1,350	1956
	PARIMAHANA DRIVE	Basecourse	700	1977
	PARIMAHANA DRIVE	Basecourse	700	1978
	PAYNE CRESCENT	Basecourse	567	1969
	PETER LIPPA DRIVE	Basecourse	5,800	1980
	PIRIPIRI CRESCENT	Basecourse	2,124	2020
	PLUNKET STREET	Basecourse	5,500	1958
	POLLEN STREET	Basecourse	3,311	1958
	PORRITT DRIVE	Basecourse	7,038	1969
	RAMSDEN PLACE	Basecourse	300	1984
	RIVER ROAD	Basecourse	8,800	1956
	RIVER ROAD	Basecourse	9,800	1956
	RIVER ROAD	Basecourse	2,600	1958
	RIVER ROAD	Basecourse	3,300	1958
	RIVER ROAD	Basecourse	1,600	1965
	RIVER ROAD	Basecourse	1,100	1965
	RIVER ROAD	Basecourse	2,200	2024

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Pavement structure	RIVER ROAD	Basecourse	9,790	1971
	RIVER ROAD	Basecourse	3,300	1973
	ROBINSON STREET	Basecourse	2,600	2019
	ROBINSON STREET	Basecourse	400	2019
	RYDER PLACE	Basecourse	2,000	1981
	RYDER PLACE	Basecourse	400	1981
	SAVAGE STREET	Basecourse	584	1958
	SEDDON STREET	Basecourse	370	1958
	SEWELL STREET	Basecourse	600	2018
	SHEPHERD ROAD	Basecourse	800	1984
	SHORT STREET	Basecourse	600	1957
	SPENCER AVENUE	Basecourse	3,865	1976
	SPENCER AVENUE	Basecourse	1,000	2015
	SPENCER AVENUE	Basecourse	2,580	2019
	STAFFORD STREET	Basecourse	600	1956
	STOUT STREET	Basecourse	739	1958
	SYME CRES	Basecourse	2,300	1982
	SYME CRES	Basecourse	600	1982
	TE ARIKI PLACE	Basecourse	700	1966
	TIWHATIWHA CRESCENT	Basecourse	2,920	2020
	TUWHARETOA	Basecourse	3,600	1980
	VALLEY ROAD	Basecourse	1,800	1986
	VALLEY ROAD	Basecourse	6,100	1975
	VALLEY ROAD	Basecourse	11,500	1978
	VALLEY ROAD	Basecourse	3,900	1981
	VALLEY ROAD	Basecourse	2,200	1982
	VOGEL STREET	Basecourse	3,500	1968
	WALTER NASH AVENUE	Basecourse	2,250	1967
	WARD STREET	Basecourse	3,947	1965
	WATERHOUSE STREET	Basecourse	2,025	1958
	WELD STREET	Basecourse	1,700	1956
	WELD STREET	Basecourse	400	1956
	WHITTAKER STREET	Basecourse	600	1956
	WINDLEY PLACE	Basecourse	1,400	1980
	SERVICE LANES	Basecourse	4,900	1984
	SERVICE LANES	Basecourse	2,300	1984
	SERVICE LANES	Basecourse	1,400	1985
	SERVICE LANES	Basecourse	711	1984
	SERVICE LANES	Basecourse	1,500	1984
	SERVICE LANES	Basecourse	1,200	1984
	CARPARKS	Basecourse	2,400	2008
	CARPARKS	Basecourse	1,670	1960
	CARPARKS	Basecourse	3,750	1960
	CARPARKS	Basecourse	4,400	1965
	CARPARKS	Basecourse	300	1965
	CARPARKS	Basecourse	1,700	1960
	CARPARKS	Basecourse	1,500	1960
	CARPARKS	Basecourse	450	1960
	CARPARKS	Basecourse	330	1985
	CARPARKS	Basecourse	870	2010

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Pavement structure	CARPARKS	Basecourse	4,400	1985
	CARPARKS	Basecourse	5,200	1980
	CARPARKS	Basecourse	450	1995
	CARPARKS	Basecourse	300	1970
	CARPARKS – Firmin Lodge	Basecourse	1,200	1993
	CARPARKS – Firmin Lodge	Basecourse	774	2019
	CARPARKS	Basecourse	200	1970
	CARPARKS	Basecourse	550	1970
	CARPARKS	Basecourse	600	1965
	CARPARKS	Basecourse	1,000	1990
	CARPARKS	Basecourse	1,260	1965
	CARPARKS	Basecourse	378	1995
	CARPARKS	Basecourse	1,000	2009
	CARPARKS	Basecourse	250	1975
	CARPARKS	Basecourse	200	1970
	CARPARKS	Basecourse	214	1965
	CARPARKS	Basecourse	900	1960
	DUMP ROAD	Basecourse	6,200	1971
	DUMP ROAD	Basecourse	2,677	2020
	PAVEMENT - VARIOUS	Basecourse	1	2020

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Pavement Formation	District Roads	Basecourse	392,562	

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Structures	BRIDGE	Con/Steel	1	1960
	CULVERTS x 6	Conc/Steel	6	70 - 21
	FOOT BRIDGES	Conc/Steel	31	70 - 18



KAWERAU DISTRICT COUNCIL
Asset Management Plan 2025

Stormwater



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Version History

Version	Date	Notes	Author
2015	2015	Final version: AMP - 2015	Tom McDowall
1a	26/01/2018	First revision for 2018	Hanno vd Merwe
1b	31/01/2018	Review: Technical support officer	Tina Mitchell
1c	16/02/2018	Update after MOS review	Hanno vd Merwe
1d	20/02/2018	External review	Kelvin Hill (Western Bay DC)
2	20/03/2018	Submission to Council	Hanno vd Merwe
2a	15/10/2020	First revision for 2020	Tina Mitchell
2b	24/03/2021	Second revision for 2020	Tina Mitchell
2c	9/4/2021	Management Review	Hanno vd Merwe
2d	20/7/2021	Post Audit Review amendments	Tina Mitchell
3	1/08/2021	Submission to Council	Hanno vd Merwe
4	3/05/2024	Revision for 2024	Hanno vd Merwe
5	17/12/2024	Peer review for 2025	Hanno vd Merwe-Consultant
5a	18/3/2025	Revision following audit review	Peter Christophers
5b	26/3/2025	Confirmation of AMP	Riaan Nell - GMOS
5c	7/4/2025	A & R Committee review	



SECTION ONE

Executive Summary



PURPOSE OF THE PLAN

The overall purpose of this Asset Management Plan is to describe Council’s strategies for the management of its stormwater assets. The Plan enables Council to meet the present and expected future needs of the Community over a ten-year period (according to the 10 year Long Term Plan) and into the future (according to the 30 year Infrastructure Strategy).

The Plan details the assets Council owns and describes how the maintenance, renewal and replacement of these assets will be managed and funded to meet required levels of service for Council’s Stormwater Activity in the most cost effective way for households and businesses.

The Asset Management Plan collates high-level management, financial, engineering and technical information from various sources and into a single document. It is a tool for communicating complex asset management information and strategies with stakeholders and interested parties.

An independent auditor evaluated the level of provision of asset management for the stormwater asset in 2017. The appropriate level was recommended to be raised from the Council’s asset management policy of “Core” to “Intermediate” due to the higher risk to the health and well-being of the community in the event of stormwater assets failing to deliver an appropriate level of service.

The previous assessment of the asset management level and the level required for “Intermediate” showed a gap of 14 percent overall for Stormwater. Asset management improvement actions were identified in 2021 and completed by 2024 to close this gap. The remaining and newly identified improvement actions are discussed in Section 0.

ASSET DESCRIPTION

The Kawerau community is served by a Council owned and run stormwater system designed to manage rainfall run-off and mitigate surface water flooding. Stormwater is collected almost exclusively from the roading network and channelled through a network of pipes into natural waterways.

It currently consists of approximately 31.5 km of stormwater pipes and together with cesspits, manholes, stormwater outfalls, and other components are managed as part of the stormwater asset.

The table below summarises the key components of the system including additional infrastructure that were vested to Council following the residential developments of Porritt Glade and Central Cove.

Key components

Length of piping (km)	31.5
Number of cesspits	783
Number of outfalls	20
Number of manholes	538

The replacement costs and depreciated values of the stormwater asset are shown below:

Replacement and depreciated values

Asset Type	Replacement value @ 30-6- 2024	Depreciated value @ 30-6-2024
Stormwater Pipes	\$19,078,695	\$3,789,171
Stormwater Structures	\$6,814,640	\$2,180,863
Total	\$25,893,335	\$5,970,034

LEVELS OF SERVICE

Customer levels of service

Council monitors and reports its actual performance against measures and targets contained in the Long Term Plan.

Council targets include the number of service requests, time taken to respond and the number of dwellings flooded because of stormwater system problems. The three yearly community satisfaction survey undertaken in 2023, reports 70% resident satisfaction with the stormwater service that is above the national average (56%).

Technical levels of service

Council seeks to maintain and operate a stormwater system in a manner that is fit for purpose and does not compromise public safety. It also seeks to comply with its stormwater resource consents at all times.

As with customer level of service, Council monitors and reports its actual performance against measures and targets contained in the Long Term Plan.

Constraints to levels of service

Constraints that may impact the ability to deliver the required levels of service include issues relating to funding, capacity, reliability and environmental performance.

Resource consents

Council currently holds resource consents from the BOP Regional Council (BOPRC) for three

stormwater discharges into the Tarawera River and Ruruanga Stream.

Conditions relate to the volume and quality of discharge and require Council to maintain cesspits. A further 17 discharges are covered by existing use rights and are the subject of an application for a comprehensive consent.

Significant adverse effects

Stormwater collection and discharge has minimal effect on the environmental well-being of the community. Although stormwater carries contaminants from road surfaces, the receiving water is a large body of water, clear and fast flowing, capable of dealing with the discharges without any significant adverse effects.

FUTURE NEEDS

Due to a number of factors, Kawerau's stormwater network is generally adequate for current rainfall runoff demands and most of the network has some spare capacity. The soil is made up predominantly of Tarawera ash/pumice and is therefore exceptionally free-draining resulting in minimal instances of standing water. This has made possible to ensure that rainfall collected in the stormwater system is almost exclusively from the roadway. Almost all buildings (aside from a small number in the CBD) drain stormwater to soak hole systems on their own property.

The Kawerau District has experienced low population growth and demand for additional services, however, it has continued to experience a consistent increase in residents over the age of 65. In the 2013 census, the total population of the Kawerau District was 6,363, a decrease of 8.1% or 561 people since the 2006 census. Despite the predicted further decline, the 2018 census showed a growth of general population to 7,460. The Kawerau district estimated population according to the 2023 census is 7,820 which represented a 4.8% increase in population since 2018 or around 1% population growth per annum.

Council hopes to bolster these gains with economic development initiatives, such as the development of a new industrial park and promotion of the natural environment.

As well as increased demand from any new development, it is possible with climate changes continuing to occur, that rainfall intensities and storm durations increase, then the stormwater assets may require enhancement to cope with the increased flows.

A small number of flood prone areas were identified during significant rainfall events in recent years. Options for increasing the capacity (either installing additional drainage or increasing current drainage capacity) in these areas were considered.

For the Blundell Street area, the less invasive and more cost effective option selected was a series of

detention basins to arrest any sudden volume of stormwater run-off from the Tuwharetoa Farm land. Detention Basins were constructed on the farmland at the southern end of both Valley Road and Hardie Avenue.

The River Road culverts carrying the Pumphouse Spring overflow stream were found to be a significant cause of flooding in the Fraser Street area. Designs were commissioned for replacement culverts that provided a larger free flowing structure. These new culverts were installed from November 2020 and completed in April 2021.

There is a greater emphasis on the need to ensure that streams are more proactively maintained with a regular clearing of vegetation, in particular, the overflow stream and Ruruanga Stream as it runs behind The Village on Tamarangi Drive.

Other than those addressed above, the current stormwater systems are deemed sufficient and no other upgrades of capacity in the network are planned during the life of this Plan. Any problems created by changes in land use will be dealt with on case-by-case basis.

The new proposed industrial park on SH34 will be required to manage stormwater by soakage into the ground, as there are no nearby streams for discharge into the river.

The life cycle of stormwater assets was assessed as being 80 - 100 years. The replacement of significant lengths of pipes will not occur until 2035 in all areas not affected by geothermal activity.

Concrete and glazed earthenware pipes in the geothermal zone have a shorter expected life cycle of 35 - 40 years and are actively being replaced with PE pipes and components. PE pipes are conservatively estimated to have an expected life of 40 years in this area.

LIFE CYCLE MANAGEMENT

Assets

Inlet/Outlet asset group

Included in this group are six major culverts (included in the Rooding Network Asset Management Plan and not managed in this plan) and 783 cesspits.

Service connections

Stormwater service connections are rarely required in Kawerau due to its sandy volcanic soils. Only the properties located within the town centre are connected to the town stormwater network equating to no more than 12%.

Pipes

The asset register records 31.5 km of pipe in various sizes. Practically all are rubber-ring jointed centrifugally moulded steel-reinforced concrete with

the exception of glazed earthenware and PVC/PE pipes in the geothermal and CBD areas.

Manhole asset group

The asset register records 538 manholes in service, generally installed at changes in pipe direction or grade or at junctions of two or more pipes.

Critical assets

The stormwater pipes in the Town Centre are considered critical since a failure or collapse of a stormwater pipe may lead to flooding of the shops and businesses. The area is also in a geothermal zone and all the concrete pipes are being replaced with PE pipes.

New assets

A small number of new assets have been added to the network recently (2020) through the two new housing developments in Porritt Drive and Bowen Street. The new industrial park located opposite the existing mill site commenced development during the period of the last AMP and continues to expand with stormwater assets constructed to Council requirements by the developer and to be vested in Council.

Maintenance plan

All stormwater maintenance is undertaken on an 'as required' basis. The costs for maintenance of the stormwater network are included in the stormwater activity.

Renewal/Replacement

The network has been divided into six zones: the first 5 zones are based on the estimated average date at which each zone was developed. The sixth zone is geothermal areas where concrete pipe replacement with PE pipe (mostly relined) is being accelerated.

The zones are:

1. 1955-1957 (~15,420 m)
2. 1962-1970 (~3,030 m)
3. 1973 (~4,770 m)
4. 1978 (~4,530 m)
5. 1980-1996 (~ 1,970 m)
6. 2000 to present (~1 820 m)

Historically, all assets in a zone are given the same installation date and therefore will have the same replacement date. The renewal funding for each zone has been averaged over eight years due to a range of reasons for variable deterioration rates. The objective is to maximise the life of the asset without compromising service. Extending the asset life reduces the overall cost to the Community.

Due to the greater than anticipated degradation of the pipe work in the town centre brought about by the corrosive nature of SO² (Sulphur dioxide) a CCTV investigation project is programmed was undertaken in 2021 to follow the line from the Town Centre to the river outfall. Following this, a significant replacement programme was undertaken with all pipes in this area being renewed.

Deferred Maintenance and Disposal Plan

There is no known deferred maintenance or specific disposals identified in the Plan.

FINANCIAL SUMMARY

As noted above, Kawerau's stormwater network is generally adequate for current rainfall runoff demands. There is some question about the impact of changing rainfall patterns and future stormwater requirements. However, most of the network has some spare capacity so it is anticipated that limited, localised upgrading should cope with changes in rainfall.

Due to the network being relatively young and standard lives being used for replacement analysis rather than physically assessing the lives of the pipe from in ground inspection, there is some risk associated with the amount of funding being allocated for future replacement. Performance analysis is planned and the renewal/funding model will be modified to better reflect the true deterioration rates.

ASSET MANAGEMENT SYSTEMS AND PROCESSES

Asset management outcomes

Responsibility for asset management outcomes lies with the Group Manager, Operations and Services.

Accounting and asset management systems

Ozone software is used for accounting and billing. All formal asset management financial reporting including valuation is currently held in Excel spreadsheets. This is being migrated into the AssetFinda system.

Key information flows and processes

Key information flows and process linkages are those which relate to the incorporation of Kawerau's Community Outcomes, the preparation and adherence to Council's annual budgets, environmental monitoring and compliance and to ongoing asset management which maintains levels of service to the community.

MONITORING AND IMPROVEMENT PLANNING

Improvement items are outlined in section nine of the Plan. Key improvement activities centre on continuing to increase the accuracy of Council's information relating to the stormwater assets.

The Leadership Team will monitor and review improvement items on a six monthly basis. The improvement plan will be reviewed each year as part of the annual plan development process.



SECTION TWO

Introduction



PURPOSE OF THE PLAN

The overall purpose of this Asset Management Plan is to describe Council's strategies for the management of its stormwater assets. The Plan enables Council to meet the present and expected future needs of the Community over a ten year period (according to the 10 year Long Term Plan) and into the future (according to the 30 year Infrastructure Strategy).

The plan details the assets Council owns and describes how the maintenance, renewal and replacement of these assets will be managed and funded to meet required levels of service for Council's Stormwater Activity in the most cost effective way.

The asset management plan collects high level management, financial, engineering and technical information from various sources and combines these into a single document. It is a tool for communicating complex asset management information and strategies with stakeholders and interested parties.

ASSET DESCRIPTION

In the Kawerau District, there is a network of pipes which collects stormwater almost exclusively from the roading network and disposes of it into natural waterways. Aside from a small number of buildings located in the CBD, properties are not connected to the stormwater network and drain to soak holes on their property.

Council conducts the operational, maintenance, renewal and construction activities relating to the stormwater network. In addition to these physical activities, there are administration activities including:

- Responding to requests from the public.**
- Maintaining and applying for resource consents.**
- Recording and costing of expenditure.**
- Complying with accepted standards.**
- Ensuring private development manages its own stormwater.**
- Managing the asset inventory.**

This asset management plan records these activities, providing reference to policies, management decisions and programmes. At the same time it demonstrates that the activity is being conducted in a responsible and cost-effective way, sustainable over the long term.

The Stormwater Activity requires the infrastructure listed below to be operated, maintained, renewed, added to and in rare cases, dismantled or abandoned.

The table below summarises the key components of the system including additional infrastructure following the residential developments of Porritt Glade and Central Cove. These additions are included in the table:

Table 15: Key components

Length of piping (km)	31.5
Number of cesspits	783
Number of outfalls	20
Number of manholes	538

OBJECTIVES OF ASSET OWNERSHIP

The goal of the Stormwater activity is to dispose of stormwater in a manner which protects the community from flooding and minimises negative impacts to the environment.

The activity involves:

- Disposal of stormwater from the roading network.
- Repairing or replacing unsound pipes and other stormwater structures.
- Cleaning pipes and cesspits.
- Planning to meet future requirements, and improving operations.

Council's principal objectives are:

- To anticipate the time when it may be necessary to extend, upgrade or renew the existing stormwater network and to plan accordingly.
- To ensure the appropriate maintenance of the stormwater network is carried out in perpetuity, so that there is no decrease in value and to forecast the estimated future cost of doing so.
- To put in place a sound management regime for all matters relating to the stormwater network.

A number of legislative requirements relate to the collection and removal of stormwater. These include the Local Government Act 2002, the Resource Management Act 1991, the Health Act 1956 and Council's District Plan.

The vast majority of stormwater disposed of through the stormwater network comes from the roading network which is owned and operated by Council. Therefore, disposal of the stormwater needs to be managed by Council.

Stormwater can have a significant detrimental effect on a large proportion of the Community if not properly managed. A flooding event on a property

is often the culmination of events not originating on that property.

CONTRIBUTION TO COMMUNITY OUTCOMES

The Stormwater Activity contributes primarily to the Council Community Outcome that Council infrastructure and services are effective, efficient and sustainable.

LINKS TO OTHER STRATEGIC DOCUMENTS

Public infrastructure supports activity that contributes toward the economic, social, cultural and environmental wellbeing of the community. In addition to stormwater infrastructure, Council owns the water supply and wastewater (sewerage) systems, the district's roads and footpaths, and its public parks, reserves, buildings and facilities. The parts that make up those networks and structures

and the tools and equipment used to manage and maintain them, are known as Council's assets.

Every three years Council develops a Long Term Plan which sets out the range and level of services it will provide to meet identified Community needs and Community Outcomes and indicates anticipated expenditure on assets for the next 10 years. Each year Council adopts an Annual Plan, which contains the budget for Council services. Council's ability to deliver services and to do so at a reasonable cost depends on the condition, performance and risk profile of its assets.

Council's asset management planning is therefore closely linked to its Annual Plan and Long Term Plan.

This Asset Management Plan was developed in conjunction with the Kawerau District Council Long Term Plan 2025-2034. It will underpin and be integrated into that document as well as the 2026/27 Annual Plan.



SECTION THREE

Levels of Service



CUSTOMER LEVELS OF SERVICE

The following customer levels of service agreed upon in the 2025 34 LTP:

Table 16: Customer Levels of Service (LOS)

LOS	Performance Measure	Target
Council provides an effective stormwater network which removes stormwater to protect dwellings from flooding (System adequacy)	The number of flood events that occur in the District.	No more than 10
Response times	The median response time to attend a flooding event, measured from the time that Council receives notification to the time that service personnel reach the site.	Less than one hour
Discharge compliance	Compliance with Council's resource consents for discharge from the system, measured by the number of: <ul style="list-style-type: none"> • abatement notices • infringement notices • enforcement orders, and • convictions, received by Council in relation to those resource consents.	No notices, orders or convictions

TECHNICAL LEVELS OF SERVICE

Council will continue to monitor and report its actual performance against measures and targets described in the LTP. All reporting is done through quarterly reports to the Council by the Group Manager, Operations and Services.

CONSTRAINTS TO LEVELS OF SERVICE

The constraints which impact on levels of service of the stormwater network are shown in the table below.

Table 17: Constraints to Levels of Service

Constraint	Component	Comments
Capacity	Residential Service Connections	Residential houses do not connect to the stormwater network.
	Industrial Service Connections	Some industrial properties in Manukorihi Drive have a 100mm pipe connection to the network from their underground stormwater storage tanks.
	Public Networks	There are no known capacity constraints with the current network of pipes during typical rainfall events. Extreme events have exceeded the network capacity in localised areas. Modification to the overland flow paths next to rural areas have occurred allowing roadways to act as flow paths rather than inundating homes.
	Rainfall Intensities	There are no available calculations as to the maximum capacity of the stormwater network. However, the system has managed to accommodate heavy rainfalls with minimal flooding of the roads. Flooding is typically caused by cesspit blockages rather than insufficient capacity.
	Cesspits	The cesspits block with leaves, especially in the autumn. Stormwater then flows to the next available cesspit. Cleaning of cesspit lids prior to and during rain events prevents flooding of properties.

Reliability and Security of Service	Public Networks	Asset failures occur due mainly to cesspit blockages. Pipe blockages are cleared immediately they are detected. Tree roots are a common cause. If possible, offending trees are removed to prevent repeat events.
	Catastrophic failure	Failure due to natural disaster could be extensive. However, overland flow paths will minimise inundation of buildings.
Environmental Performance	Consents	All existing discharge points to natural waterways are covered by resource consents. Because the stormwater comes from the roading network the presence of unknown contaminants in the stormwater from other sources is unlikely.
	Future requirements	A stormwater management plan has been lodged with the BOPRC which covers the long term discharge consent and any collection issues.

RESOURCE CONSENTS

Council's current resource consents are shown in the table below.

Table 18: Resource Consents

Consent No.	Name	Purpose	Expiry Date
63046	Tarawera River - Manukorihi Drive	Stormwater discharge	31 March 2025
20227	Ruruanga Stream – Valley Road 200m downstream from culvert	Stormwater discharge	1 October 2026
20757	Ruruanga Stream – Valley Road just downstream from culvert	Stormwater discharge	None

Table 19: Resource Consent Conditions

Consent No.	Conditions
63046	Maximum discharge, maximum suspended solids, free of certain substances, maintain structure.
20227	Maximum discharge, substantially free from suspended solids and certain substances, cesspits to be adequately maintained.
20757	Maximum discharge, substantially free from suspended solids and certain substances, cesspits to be adequately maintained.

SIGNIFICANT ADVERSE EFFECTS

The collection and discharge of stormwater has minimal negative effect on the environmental well-being of the community. The stormwater contains contaminants (grit, organic material, and chemicals) from the road surface. However, the receiving water (Tarawera River) is large, clear and fast flowing and capable of dealing with stormwater discharges when the conditions of the resource consents is adhered to. The road network is predominantly low volume with minimal heavy traffic which reduce chemical contamination.



SECTION FOUR
Risk Management



RISKS

Physical Risks

Physical risks are generally result from:

- The inevitable natural process of deterioration.
- Actions of other parties working or travelling in the vicinity of the assets.
- Natural disasters such as earthquakes or flooding.

Durable materials, good workmanship, and careful planning will not always be sufficient to prevent physical damage by people or natural events (severe flooding damaging outlet structures). In the last 20 years there has been no damage to the stormwater network from flooding. This indicates that the current system is at minimal risk from the more common natural disasters such as flooding.

Financial Risks

Financial risks are those which result in decreased cash flow and/or inability to afford the work that is required. They include loss of a major ratepayer (requiring the cost burden to be absorbed by the remaining ratepayers), failure to take advantage of any available subsidies and replacing assets before end of useful life, resulting in less than optimal life-cycle cost.

Health and Safety Risk

Health and safety risks arise as a result of physical actions or omissions of Council staff or contractors, or equipment failure. Health and safety risks are minimised by training staff and employing reputable contractors for maintenance and new works.

Environmental Risk

There are risks of prosecution due to failing to comply with the law. The right of the Bay of Plenty Regional Council to change consent conditions during the term of the consent represents a regulatory risk exposure to Council. The consequence of this risk could be a requirement to improve the quality of the stormwater by treatment or an upgrade of the network.

Regulatory Risk

The right of the BOP Regional Council to amend consent conditions during the term of consent represents a regulatory risk exposure to Council. However, the change normally only occurs due to failure to meet existing consent conditions. The consequence of this change would be modified treatment practices, which could have capital and operational cost consequences. BOPRC would conduct significant dialogue with Council prior to actually amending conditions and there would normally be a timeframe within which to implement changes.

The special rights and status of Tangata Whenua in the resource consent process also represents a risk to Council. Council believes it can minimise this risk by maintaining cordial relationships with local Iwi.

There is also a risk of prosecution if Council fails to comply with legislation.

RISK MITIGATION

The significant risks and the Council actions taken to mitigate these risks are set out in the table on the next page.

Insurance

Council has adequate insurance in place to cover the replacement and/or repair of pipes and other structures in this group.

Civil defence and emergency response plans

Council has staff dedicated to the recovery of Council services in the event of a civil defence emergency. Two Council buildings (Council Chamber and Firmin Lodge) have Civil Defence designations for use in the event of a disaster.

Financial

Council funds depreciation at a rate commensurate with the loss of life of the various asset components. This funding is invested until required for replacement.

Table 20: Risk Mitigation

Key Exposure	Risk Probability	Residual Exposure Consequence	Mitigation
Physical			
Seismic Event	Medium	Significant	Earthquake design Standards
			Redundancy in reticulation
			Insurance cover
Flood Event	High	Medium	Well built and maintained outfalls
			Surface flows paths defined and well maintained
			Insurance cover
Damage by Others	Low	Moderate	Staff available 24/7
			Respond to reports of damaged or missing manhole lids
			Insurance cover
Failure due to deterioration of assets	High	Low	Asset performance monitoring
			Staff available 24/7
			Renewal Programme
Financial			
Funding not available when renewals required	Low	Low	Reserves are set aside annually and only a small amount of borrowing to date.
Health and Safety			
Injury to persons or property due to operations	Moderate	Low	Employ reputable contractors/qualified staff
			Insurance cover
Damage to property, injury or death due to assets being in public places or during flood	Low	Moderate	Topography of District and soil permeability reduces risk of flooding
			Outlets well established and no failure history during previous rain events
			Insurance cover
			Staff available 24/7 to attend to blockages
Environmental			
Stormwater quality	Moderate	Moderate	Spills on road cleaned up as soon as detected
			Staff trained in handling notified spills
			Tarawera River quick flowing
Regulatory			
Failure to comply with resource consents	Low	Low	Monitoring of consent conditions to ensure compliance
Change of consent conditions	Low	Low	EBOP negotiates consent conditions before changing and allows agreed time frames to comply



SECTION FIVE

Future Needs



CURRENT CAPACITY

The capacity of the network is adequate to handle current stormwater inflows which occur from time to time. Since storm water primarily service roads, only additional roading would justify additional stormwater infrastructure. All roads are fully develop and borders need to expand before additional roading (and therefore stormwater) will be considered.

Some extreme events (high intensity and short duration) have exceeded the network's capacity in recent years in several locations. Blockages occur several times per year in various locations, temporarily reducing capacity.

FUTURE DEMAND

Kawerau District has experienced and is expected to continue to experience very moderate growth in demand for additional residential areas. The network is designed for development upstream but further extreme events occurring, may mean upgrading the existing network is required in some instances.

Any problems created by changes in land use will be dealt with on case-by-case basis. For example a new industrial park on SH34 and the residential development of Stoneham Park, will require stormwater to be managed by soakage into the ground as there are no nearby streams for discharge into the river.

TRENDS

Population growth

The Kawerau District has experienced low general population growth in demand for additional services however has continued to experience a consistent increase in residents over the age of 65. In the 2013 census, the total population of the Kawerau District was 6,363, a decrease of 8.1% or 561 people since the 2006 census. Despite the predicted further decline, the 2018 census showed a growth of general population to 7,460. The Kawerau

district estimated population according to the 2023 census is 7,820 which represented a 4.8% increase in population since 2018 or around 1% population growth per annum.

Council hopes to bolster these gains with economic development initiatives, such as the development of a new industrial park and promotion of the natural environment.

As is the case with the rest of NZ, the population is aging with an increasing fraction of the population receiving state funded superannuation and employment benefits. The average income in respect to the national average is expected to continue to decrease and there will be an increased requirement for external funding to maintain the infrastructure in the future.

Existing and required capacity

Kawerau District is experiencing and is expected to continue to experience low growth in demand for stormwater capacity. A number of vacant sections in the town are being developed. The existing stormwater network will cope with the additional demand from this additional roading as the stormwater system was designed for these areas.

The boundary between Whakatane and Kawerau districts was adjusted in 2012 facilitating the creation of a new industrial park on SH34 opposite the existing mill site. Industrial development commenced in 2018 and includes additional roadway. The additional assets associated with this development will be vested to Council. The industries themselves will not impact on the stormwater network as these sites will manage their own stormwater on site.

As is the case with the rest of NZ, the population is aging with an increasing portion of the population receiving state funded superannuation and employment benefits. The average income in Kawerau when compared to the national average is expected to continue to decrease and the future funding for renewals will need to be carefully considered.

Table 21: Statistics NZ Population Projections – Kawerau District

Population Change 2006–2043 (NZ Stats)								
Projected Range	2006 Census	2013 Census	2018 Census	2023	2028	2033	2038	2043
High					8,410	8,650	8,830	8,970
Medium	6,921	6,363	7,460	7,820	8,000	8,020	7,970	7,860
Low					7,610	7,410	7,140	6,800

NEW CAPITAL REQUIREMENTS

There are no new significant capital requirements during the life of the Plan. Council will replace existing assets only.

New land developments in the industrial park or residential developments would require the installation their own stormwater soak holes or storm water drains that may be vested to Council at a later date.



SECTION SIX

Lifecycle Management



CRITICAL ASSETS

Asset criticality is the relative risk of high cost arising from failure of that asset. Criticality is determined by the cost and risk of potential failures and the relative importance on society and the environment. Evaluating the different failure modes of critical assets determines what maintenance, capital expenditure and conditioning monitoring needs to be planned.

In general, critical assets are maintained on risk management principles, whereas non-critical assets are maintained reactively (replace on fail).

Of the stormwater assets, only the network in the Town Centre as considered critical. The culverts in River Road is also a critical stormwater asset; however it is managed with the other structures in the Roothing asset management group.

Town Centre

Stormwater pipes installed prior to 2006 were primarily concrete which degrade at accelerated rates near geothermal areas. Failure of stormwater pipes in these areas carry a significant risk of localised flooding. As the Town Centre experiences significant geothermal degradation, failures of the stormwater network in this area could cause significant economic loss. A number of the concrete pipes and manholes in the Ranfurly Court area of the Town Centre were replaced with PE pipes and structures in 2019 – 2020 and 2024.

INLET/OUTLET ASSET GROUP

Five major culverts under roads are included in the Roothing Asset Management Plan.

The asset register records 783 cesspits. The majority of these are part of the rooding network and are maintained under that function. All are constructed of concrete with a cast iron grate, often including an open back entry to minimise blockage from accumulated debris. Cast iron grates, in frames which permit them to be opened for cleaning, are concreted in place over the cesspit. The bottom level of the cesspit is below the outlet pipes to allow silt, stones and other debris to be trapped.

The outlet asset group includes 20 outfalls recorded on the asset register. An outfall is where a stormwater pipe discharges into a natural water course.

SERVICE CONNECTIONS

Stormwater service connections are rarely required in the District due to the sandy volcanic soils that provide adequate soakage for private discharges via soak holes.

In the town centre, roofs discharge to the public network equating to no more than 12%. The property owner is responsible for maintenance and replacement of service connections to the stormwater network.

PIPE ASSET GROUP

The asset register records 31.5 km of pipe in 1,376 lengths. The stormwater pipe network is made up of pipe from 225mm to 1,200mm in diameter. A large proportion of the pipes are less than 450mm in diameter. There are lengths of subsoil drain of 100 to 150mm in diameter.

Almost all pipes are rubber-ring jointed centrifugally-moulded steel-reinforced concrete. The pipes in the geothermal area are a mixture of High Density Poly Ethylene (PE), glazed earthenware, PVC and reinforced concrete. The subsoil drains in the Beattie and Hardie Avenue area are 100-150mm diameter slotted drain coil.

Asset Install Dates

The network has been divided into six zones: the first 5 zones are based on the estimated average date at which each zone was developed. The sixth zone is a geothermal area where concrete pipes were mostly relined with PE pipe.

The zones are:

1. 1955-1957 (~15,420 m)
2. 1962-1970 (~3,030 m)
3. 1973 (~4,770 m)
4. 1978 (~4,530 m)
5. 1980-1996 (~ 1,970 m)
6. 2000 to present (~1 820 m)

Historically, all assets in a zone are given the same installation date and therefore will have the same replacement date. To allow for the spread of installation dates and due to a range of reasons pipes will deteriorate at different rates, the renewal funding for each zone has been averaged over eight years. The objective is to maximise the life of the asset without compromising service. Extending the asset life reduces the overall cost to the Community.

Data Validation

The physical location of almost all the cesspits and manholes has been reviewed to verify that they are in the correct location.

It is estimated that the location accuracy of the cesspit and manholes is 95%.

The diameter of the pipes has been taken from the original as built plans. Several of the diameters have been checked in the field and these corresponded with the plans. It has been assumed that the balance of the diameters correspond with the original plans.

Checks have been undertaken with the AssetFinda data to verify that the pipes continue to increase in diameter as they go downstream.

It is estimated that the diameter of the pipes is 95% accurate based on these evaluations performed the previous two years.

All the pipes have been determined as being concrete except where they are known to be something else (PVC, PE). Videos taken as a result of blockages and staff observations verify this assumption.

Asset Lives

The oldest of the pipes are currently 68 years old (installed in 1957). There have been no collapses of stormwater pipe in Kawerau except in areas that are impacted by geothermal activity (Town Centre). There have been no sign of deterioration of the internals of the pipes when inspections have been undertaken for blockage reasons.

A section of concrete sewer pipe from Zone 1 (1957) was removed in 2015 and tested in the Opus Lab in Christchurch. The pipe was assessed as Grade 3 - Moderate Condition. The pipe was assessed as having a further 40 years of life. The section through the pipe which shows to level of cement that has leached from the pipe showed the following

External deterioration: 0.0 to 2.6mm

Internal deterioration: 0.8 to 10.3mm

The internal deterioration is in the lower section of the pipe which is what would be expected in a sewer pipe.

A stormwater pipe has no water in it for over 90% of its life and when there is water present it is a lot less aggressive than wastewater. It could reasonably be assumed that the minimum rate of deterioration occurring on the inside of the wastewater pipe would be occurring in a stormwater pipe.

This hypothesis has been confirmed by taking a number of 50mm cores through stormwater pipes and painting the edges with Phenolphthalein which shows a similar very small reduction in cement

(A phenolphthalein solution was applied to the prepared plugs of pipe, and when the phenolphthalein turns magenta in colour this indicates sound concrete. Where the phenolphthalein does not react with the concrete surface this indicates the cement has leached and the pipe wall has deteriorated.)

Based on the results of the sewer pipe testing, plug samples taken and tested, visual observations of pipe surface quality it is considered that a conservative life for concrete stormwater pipes would be at least 100 years.

Council for the purposes of this asset management, conservatively estimated the useful life of these pipes to be 80 to 100 years. The deterioration of stormwater pipes will be continuously evaluated in the future and the asset management plan along with programmed renewals will be updated with later findings.

The expected life of PE and PVC pipes are considered to exceed that of concrete, however, as these materials have not been used for long periods, a 80 - 100 year lifespan is used for these assets as well. No evaluation of glazed earthenware has been performed to date and the existing 80 year life will be used. Most glazed earthenware occurs in the geothermal Zone 6 and has subsequently been relined with PE pipes.

Table 22: Asset lives – Stormwater

	Current life	Recommended
Concrete Pipes	70	80
PVC/PE Pipes	70	80
Glazed Earthenware	80	80
PVC/PE (Geothermal area)	40	40
Manholes	70	70
Sumps/Cesspits	70	100
Outlets	70	70

The size and age distribution of the network is illustrated below.

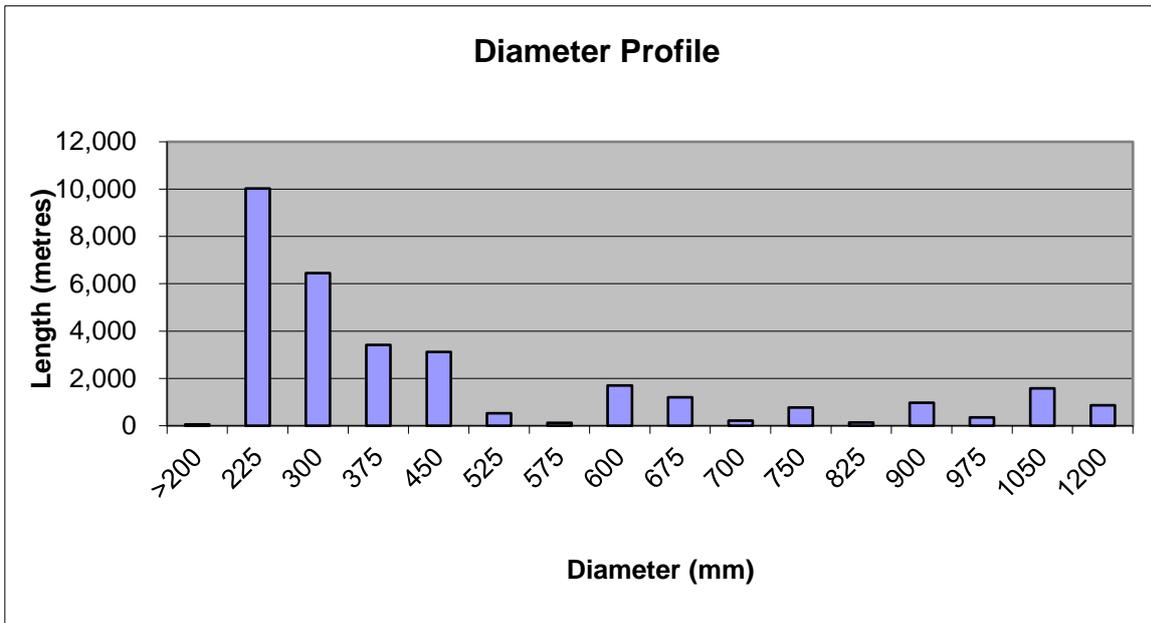


Figure 1: Diameter Profile of Stormwater Pipes

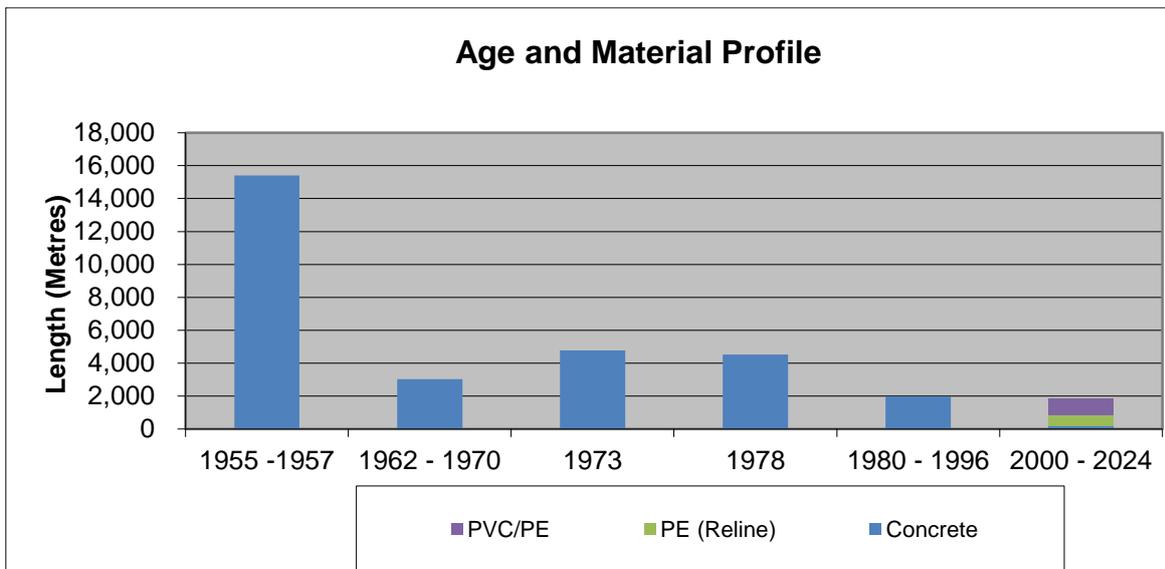


Figure 2: Age/Material Profile of Stormwater Pipes

MANHOLE ASSET GROUP

The asset register records 538 manholes in service, generally installed at changes in pipe direction or grade or at junctions of two or more pipes. Most are of standard 1,050mm diameter, made of precast reinforced concrete with cast iron lids. There are galvanised iron rungs in the sides of the manholes for access.

No formal process of manhole inspection for deterioration is in place. When maintenance activity has been undertaken, no deterioration

on the inside of manholes has been detected (except in geothermal areas).

If significant deterioration is detected, the manholes will either be replaced or relined

An asset life for manholes of 70 years have been recommended except in geothermal areas.

PERFORMANCE ISSUES

As well as increased demand from any new development, it is possible that if climate change continues to occur, that rainfall intensities and storm durations may increase, and the assets may require enhancement to cope with the increased flows.

A small number of small flood prone areas had been identified during significant rainfall events during recent years. Increasing the capacity (either installing additional drainage or increasing current drainage capacity) in these areas was considered.

It was considered in the Blundell Street area, the less invasive and more cost effective option of a series of detention basins being designed in order to simply arrest any sudden volume of water that flowed from the Tuwharetoa farmland. Detention Basins were constructed in the farmland at the southern end of both Valley Road and Hardie Avenue.

The design of the River Road culverts carrying the Pumphouse Spring overflow stream were found to be a significant cause of flooding in the Fraser Street area. Designs were commissioned for replacement culverts that provided a larger free flowing structure. Installation of these new culverts commenced toward the end of 2020 and completed in April 2021.

There is a greater emphasis on the need to ensure that streams are more proactively maintained with a regular clearing of vegetation, in particular, the overflow stream and Ruruanga Stream as it runs behind The Village body corporate housing on Tamarangi Drive.

With those issues being addressed above, the current stormwater system is deemed sufficient and no other upgrades of capacity in the network are planned during the life of this Plan. Any problems created by changes in land use will be dealt with on case-by-case basis.

DATA RELIABILITY

The stormwater data has been assessed as reliable. All the data has been imported into a digital database (AssetFinda) and validated. High correlation between records and actual assets were found and the rare anomalies have being corrected.

MAINTENANCE PLAN

Most stormwater maintenance is currently undertaken on an 'as required' basis. The low level of public complaint about flooding is a measure of the success of maintaining the asset.

Cesspits

These are cleared of debris on a regular basis during autumn and year round prior to forecast rain events including ongoing clearing during the event.

Any complaints about surface flooding are attended to immediately to ensure the cesspits are cleared of any subsequent built up debris.

Pipes

Minimal preventative maintenance is required for stormwater pipes. Faults and blockages are repaired as reported and asset information updated as part of the operation. Investigative camera work is undertaken from time to time predominantly in and downstream of the geothermal area.

Manholes

Regular maintenance of manholes is considered unnecessary. Reactive maintenance includes clearing occasional blockages and replacing broken lids and frames. Stormwater maintenance is generally undertaken on an 'as required' basis. The low level of public complaint about flooding is a measure of the success of maintaining the asset.

New Assets

Stormwater capacity in the existing residential network is anticipated to be static for the duration of the planning period. Some detention basins have been constructed to protect the integrity of the stormwater system from farm run-off.

A small amount of additional asset constructed as part of the two new housing developments (Porritt Glade and Central Cove) and will be vested in Council in the near future.

The continuing development of the industrial park opposite the existing mill site will have stormwater assets constructed by the developer to Council's requirements to then be vested in Council.

Deferred Maintenance

There is no known deferred maintenance with the stormwater network and the full service potential of the asset is being maintained.

Disposal Plan

There are no specific disposals identified in the Plan. Pipes that are no longer required or are replaced due to failure will not be retrieved as they have no value.



SECTION SEVEN
Financial Forecasts



FUTURE REQUIREMENTS

Table 23: Estimated Financial requirements (including inflation)

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Operations	52,000	42,770	32,420	33,310	34,200	35,030	35,860	36,730	37,560
Depreciation	320,000	320,000	349,825	349,825	349,825	378,097	378,097	378,097	405,437
Overheads	17,550	14,870	10,870	11,170	11,610	11,450	11,720	12,260	11,870
	389,550	377,640	393,115	394,305	395,635	424,577	425,677	427,087	454,867
Asset Renewals	0	0	0	0	0	0	0	0	0
Total	389,550	377,640	393,115	394,305	395,635	424,577	425,677	427,087	454,867

FUNDING POLICY

The stormwater system provides both public and private benefits but it is not possible for Council to determine the proportion of each or to charge each group of users. For this reason Council has assessed the stormwater activity as 100 percent public good.

VALUATION

The stormwater network infrastructure is revalued by a competent valuer on a three yearly valuation cycle. Assets are valued at fair value determined on a depreciated replacement cost basis. The most recent revaluation is effective as at 30 June 2022.

Asset basis of valuation

The Optimised Depreciated Replacement Cost (ODRC) refers to today's cost of replacing the asset with another asset which provides the same level of service most efficiently and depreciated over the life of the asset to reflect its current value and remaining economic life. The optimised replacement cost assigned to each asset has been determined by suitably qualified and experienced professional persons and has been peer reviewed.

Expenses

Maintenance and operating costs are expensed in the year they are accrued.

The capitalisation threshold for stormwater assets has been set at \$1,000 or the actual value of individual components where they are identified in the asset register.

Changes in asset valuation

The costs associated with renewing assets and providing new or improved asset infrastructure are capitalised and depreciated in accordance with the assessed economic life of each asset. This also applies where a developer provides infrastructure to be vested in Council.

Capitalisation Threshold

The following definitions are used for asset management purposes and the financial treatment is summarised below:

Maintenance is work done that is of an operational nature that can contribute to the asset life reaching its maximum potential but neither increases the value nor extends the remaining life of any asset.

Renewal is work done to replace an existing asset. The cost of replacement must be

recorded as a capital expenditure, be greater than \$1,000 and recorded in the asset register as a new asset with a unique identifier.

If the asset replaced is discarded or sold it must be removed from the asset register and any residual value must be formally written off.

An addition to the asset register is required when a new asset is created with a value exceeding \$1,000. A new asset must be uniquely identified, and recorded in the asset register. The record in the asset register requires an assessment of the asset's remaining life expectancy (based on straight-line depreciation or estimated remaining life).

Where the asset register recognises an individual component worth less than \$1,000, or where a length of pipe greater than 12 metres is replaced, the threshold does not apply and the additional value is capitalised.

KEY ASSUMPTIONS

The current valuation and renewal profiles are based on data currently available.

Asset condition

In the case of the stormwater network, the condition is taken as being directly related to its age unless better information is available. The keeping of samples from repairs on pipes that are approaching the end of their useful life provides additional information. While a more planned inspection would provide a more direct assessment of condition, the cost of such programmes is high with camera work generally only performed in and downstream of the geothermal area.

Replacement cost

The projected replacement costs and depreciated values shown in the table below have been derived from Council's asset register.

Further work identified in the improvement plan, will be carried out to verify the condition of the assets and the potential need for future replacement.

Table 24: Replacement Costs and Depreciated Values

Asset Type	Replacement value @ 30-6- 2024	Depreciated value @ 30-6-2024
Stormwater Pipes	\$19,078,695	\$3,789,171
Stormwater Structures	\$6,814,640	\$2,180,863
	\$25,893,335	\$5,970,034

The procedure for calculating network replacement costs is:

Pipeline replacement will be carried out utilising HDPE pipes.

Alternative replacement technologies such as relining existing pipes will be considered on a case by case basis.

The construction environment for Council is brown field (replacement of existing) rather than green field construction.

Unit rates for replacement are derived from peer review and other recent tenders and quotes.

Replacement includes manholes and cesspits. Unusual pipes will be replaced with the next size up.

No optimisation or efficiencies in pipe size or lengths have been allowed for in replacement costs.

Depreciated value and life expectancy

Straight line depreciation has been adopted for all above ground assets. The life expectancies used to calculate depreciated values for stormwater pipes are shown in the table on the next page.

The asset lives of the different components has been derived in section 0. The expected asset lives are considerably higher for zones 1 to 5 and the pipes and structures in zone 6 will be replaced over a shorter period.

Population

Further sustained decline in population as predicted by Statistics NZ may seriously erode the rating base of the district, placing a higher burden on the remaining residents for any

infrastructure upgrades and possibly affecting capacity to fund renewal works. Population trends must therefore be reviewed as frequently as reliable data can be obtained.

Other assumptions

All expenditure is stated in 2024 values, with allowance made for the inflation over the planning period.

All costs are GST exclusive.

Operational costs are generally shown to increase in relation to inflation.

Renewal costs are based on anticipated replacement requirements.

The costs of insurance and other risk mitigation are included in the forecasts.

Climatic and other environmental trends are expected to continue as they have in the recent past.

The plan provides scope for some growth in industrial/commercial demand.

Development Contributions

Section 106 of the Local Government Act 2002 requires local authorities to adopt development contributions or financial contributions policies.

Spare capacity in Council's infrastructure means it can cope with some growth. Therefore, Council does not need to extend infrastructure to cope with increasing demand.

Council's policy is to not assess development contributions but to retain the provisions of the District Plan that allow the assessment of financial contributions.

Financial Contributions

New subdivisions or developments may require the extension of Council infrastructure networks for water supply, wastewater disposal and roading.

Council's financial contributions policy provides that the cost of these extensions is the responsibility of those who create the demand. Developers may be required to make financial contributions to meet the full cost of additional infrastructure necessary to support their subdivision or development.



SECTION EIGHT

Asset Management Systems & Processes



Responsibilities for Asset Management Outcomes

The 3 Waters Manager is responsible for the development of this asset management plan, including maintaining the integrity of Council's asset information.

The 3 Waters Manager is also responsible for the identification, budget, planning, programming and undertaking of works required for the maintenance and renewal of Council's Stormwater assets.

The Group Manager, Finance & Corporate Services is responsible for providing an overview of the development of this asset management plan, for ensuring that future projects are incorporated in Council's Long Term Plans and that there is consistency between these documents.

The Group Manager, Operations and Services is responsible for delivering the community outcomes for this activity. This includes ensuring that the assets are maintained and operated to Council's requirements, and that adequate budgets are provided for the maintenance, operating and necessary improvements.

Accounting and Asset Management Systems

Billing/Accounting system

Council currently uses Ozone software for its accounting and billing systems. It does not store or determine asset management information, but does store the number of connections to council services as well as the number of properties billed.

Currently, all formal asset management financial reporting including valuation is held in Excel spreadsheets. This will be migrated into the AssetFinda system.

AssetFinda

AssetFinda is the software used to manage and produce asset inventory reports. It is integrated with 'Map Info' data tables to permit input, querying, reporting and financial modelling using the asset register data. The spatial location of the three waters assets are laid over aerial maps, property boundaries.

Attaching information such as pump performance, type etc. to assets is a desirable improvement. The addition of photographs and 'as built' drawing to the asset will improve the data.

The software has yet to have financial data added to allow financial modelling for current replacement and depreciation value reporting.

The software has functionality to enable maintenance, renewal and resource consent monitoring activity scheduling and can be integrated into Ozone software's automated service request processes.

New asset information (location, installation date, materials' construction etc.) is entered into AssetFinda as the asset is commissioned.

The default valuation process used by AssetFinda is capable of recognising asset condition, extending the life of an asset and recalculating revised depreciation value and annual depreciation.

The improvement plan proposes that the appropriate financial information be entered into AssetFinda and the maintenance scheduling functionality be initiated.

Hard copy plans

Layout details of the pipes and structures are available for most of the stormwater assets.

Key Information Flows and Processes

Key information flows and process linkages include:

Translating the Community Outcomes into detailed levels of service that can be embodied into Asset Management Plans.

Preparation of annual budgets, and ongoing reporting.

Updating asset data as information becomes available through maintenance and service repairs.

Ongoing compliance monitoring and reporting of environmental performance.

Ongoing management of the asset to ensure that service levels are maintained.

Quality management

Management is governed by the requirements of the discharge consent. The results are compiled for submission to BOPRC in accordance with consent conditions.

Maintenance

Maintenance is carried out reactively for most asset faults. The criteria which will result in renewal rather than further maintenance are:
Is the asset important for maintaining service levels and have the service levels in the current year already been compromised by failures? If yes, consider renewal.

What has been the failure history? If the current failure is part of a series, then consider renewal.

Is the cost of the maintenance comparable to the cost of renewal? Where repair costs are

high (e.g. reinstatement of road pavement) then consider renewing a logical minimum quantity of asset to prevent further expensive repair costs.

Will maintenance preserve asset life? If yes, then carry out maintenance.

Policies for renewing assets

Replacing network components with larger components to improve capacity is treated purely as renewal capital expenditure. This is because the additional cost of larger components is not material compared with the renewal cost of component of the same kind.

Renewal

Renewal of assets will occur in accordance with practice described earlier in document.

Constructing new assets

Following many years of no demand for additional capacity, recent land developments for industry and residential have resulted in the need for additional new assets.

Funding to provide additional capacity (when eventually needed) will be treated on its merits, but in most cases the funding would be sought from property developers.

Assets vested in Council

Subdivisions that include the construction of new roads include stormwater assets. These are installed at subdivider's expense to approved Council standards and then vested in Council.

'As built' new works either occur due to subdivisions, or the installation of new assets. In both instances, detailed records of new works are obtained. These new assets are added to the AssetFinda database.

Asset disposal

Most of the components are essential to continuing provision of the service. Extensive decommissioning and disposal is very unlikely.



SECTION NINE

Monitoring Improvement Planning



Asset Management Performance Measures

The broad objectives of asset management are:

- To optimise the life of the assets
- To minimise life cycle costs
- To maintain agreed levels of service

Although it is possible to measure the success or otherwise of the asset management activity over the long term against the three criteria above, it will obviously be difficult to measure success or otherwise in the short term in a way that management control can be exerted. For example, it will be impossible to determine whether the life of a facility has been “optimised” until the actual age nears the expected life and a remaining life assessment can be meaningfully carried out.

An assessment of the asset knowledge and processes currently carried out, in terms of “best practice for a NZ authority of this size” provides an indication of how well Council is likely to be meeting these long term objectives. This assessment is therefore part of the Improvement Plan. It should include evaluation of the monitoring of operations and costs to provide information on the achievement of service level (both public measures and technical standards). It should cover previously-planned improvement actions, noting whether these have been achieved and how they are contributing to current processes. It should check how the initiatives undertaken are ‘rolled out’ from asset management staff to those carrying out the work, and how carefully field information is recorded and returned to add to the asset knowledge case.

Improvement Actions

Table 25: Improvement Actions

Improvement Item	Comment	By When	By Whom	Cost
Expand knowledge of AssetFinda functionality	Training staff (3WM)	Ongoing improvement	GMOS	\$5,000
Maintain AssetFinda database	Three Waters Engineer appointed and being trained	Annually	ACM / 3WM	\$35,000
Review asset life expectancy	Test pipes and manholes for deterioration	June 2025 and triennially thereafter	3WM & operations staff	\$10,000
Conduct asset revaluations	Last completed June 2022	June 2025 and annually thereafter	GMFCS	\$5,000

3WM = Three Waters Manager

GMOS = Group Manager Operations and Services

GMFCS = Group Manager Finance and Corporate Services

Monitoring and Review Procedures

The Leadership Team will monitor and review improvement items on a six monthly basis. This plan will be reviewed annually as part of annual plan development.



SECTION TEN

Appendices



APPENDIX A - DETAILED ASSET DESCRIPTION

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
STORMWATER PIPES				
STORMWATER PIPES - ZONE 1	1050	CONCRETE	768	1956
STORMWATER PIPES - ZONE 1	900	CONCRETE	612	1956
STORMWATER PIPES - ZONE 1	750	CONCRETE	427	1956
STORMWATER PIPES - ZONE 1	700	CONCRETE	223	1956
STORMWATER PIPES - ZONE 1	675	CONCRETE	936	1956
STORMWATER PIPES - ZONE 1	600	CONCRETE	1045	1956
STORMWATER PIPES - ZONE 1	450	CONCRETE	1209	1956
STORMWATER PIPES - ZONE 1	375	CONCRETE	2136	1956
STORMWATER PIPES - ZONE 1	300	CONCRETE	2458	1956
STORMWATER PIPES - ZONE 1	225	CONCRETE	3532	1956
STORMWATER PIPES - ZONE 1	LATERAL	CONCRETE	2070	1956
STORMWATER PIPES - ZONE 2	575	CONCRETE	129	1965
STORMWATER PIPES - ZONE 2	450	CONCRETE	85	1965
STORMWATER PIPES - ZONE 2	375	CONCRETE	237	1965
STORMWATER PIPES - ZONE 2	300	CONCRETE	1288	1965
STORMWATER PIPES - ZONE 2	225	CONCRETE	753	1965
STORMWATER PIPES - ZONE 2	LATERAL	CONCRETE	540	1965
STORMWATER PIPES - ZONE 3	1200	CONCRETE	778	1973
STORMWATER PIPES - ZONE 3	825	CONCRETE	133	1973
STORMWATER PIPES - ZONE 3	675	CONCRETE	204	1973
STORMWATER PIPES - ZONE 3	450	CONCRETE	841	1973
STORMWATER PIPES - ZONE 3	375	CONCRETE	628	1973
STORMWATER PIPES - ZONE 3	300	CONCRETE	996	1973
STORMWATER PIPES - ZONE 3	225	CONCRETE	471	1973
STORMWATER PIPES - ZONE 3	LATERAL	CONCRETE	720	1973
STORMWATER PIPES - ZONE 4	1050	CONCRETE	591	1978
STORMWATER PIPES - ZONE 4	900	CONCRETE	300	1978
STORMWATER PIPES - ZONE 4	600	CONCRETE	559	1978
STORMWATER PIPES - ZONE 4	450	CONCRETE	520	1978
STORMWATER PIPES - ZONE 4	375	CONCRETE	291	1978
STORMWATER PIPES - ZONE 4	300	CONCRETE	820	1978
STORMWATER PIPES - ZONE 4	225	CONCRETE	1051	1978
STORMWATER PIPES - ZONE 4	LATERAL	CONCRETE	400	1978
STORMWATER PIPES - ZONE 5	1200	CONCRETE	85	1985
STORMWATER PIPES - ZONE 5	1050	CONCRETE	228	1985
STORMWATER PIPES - ZONE 5	975	CONCRETE	346	1985
STORMWATER PIPES - ZONE 5	675	CONCRETE	66	1985
STORMWATER PIPES - ZONE 5	600	CONCRETE	94	1985
STORMWATER PIPES - ZONE 5	525	CONCRETE	528	1985
STORMWATER PIPES - ZONE 5	450	CONCRETE	92	1985
STORMWATER PIPES - ZONE 5	375	CONCRETE	129	1985
STORMWATER PIPES - ZONE 5	300	CONCRETE	224	1985

STORMWATER PIPES - ZONE 5	LATERAL	CONCRETE	180	1985
STORMWATER PIPES - ZONE 6	675	GLAZED EARTHENWARE		1962
STORMWATER PIPES - ZONE 6	600	GLAZED EARTHENWARE		1962
STORMWATER PIPES - ZONE 6	300	CONCRETE/EARTHENWARE		1958
STORMWATER PIPES - ZONE 6	300	CONCRETE/EARTHENWARE		1962
STORMWATER PIPES - ZONE 6	750	CONCRETE	36	2011
STORMWATER PIPES - ZONE 6	750	CONCRETE	14	2012
STORMWATER PIPE RAUTAHU	300	PVC	50	2003
STORMWATER PIPE RAUTAHU	225	PVC	33	2003
STORMWATER PIPES - ZONE 6	300	CONCRETE	55	2003
STORMWATER PIPES - ZONE 1	225	CONCRETE	15	2006
STORMWATER PIPES - LANDFILL	900	CONCRETE	63	2006
STORMWATER PIPES - MANUKORIHU STREAM	450	PVC	50	2014
STORMWATER PIPES - RANFURLY COURT	300	PVC	60	2016
STORMWATER PIPES - RANFURLY COURT	300	PE (Reline)	56	2017
STORMWATER PIPES - RANFURLY COURT	750	PE	295	2019
STORMWATER PIPES - PIRIPIRI CRESCENT	450	PVC	327	2020
STORMWATER PIPES - TIWHATIWA CRESCENT	300	PVC	45	2020
STORMWATER PIPES - RANFURLY COURT	300	PE	145	2021
STORMWATER PIPES - RANFURLY COURT	150	PE (Reline)	52	2024
STORMWATER PIPES - RANFURLY COURT	225	PE (Reline)	449	2024
STORMWATER PIPES - RANFURLY COURT	300	PE (Reline)	71	2024
ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
STORMWATER STRUCTURES				
STORMWATER OUTFALL - TARAWERA RIVER	OUTLET	CONCRETE	18	1966
OUTFALL - STONEHAM WALK	STRUCTURE	CONCRETE	1	1970
OUTFALL - HILLDALE PARK	STRUCTURE	CONCRETE	1	1983
STORMWATER MANHOLES - DISTRICT WIDE	MANHOLE	CONCRETE	514	1966
STORMWATER MANHOLES - ADDITION 2016	MANHOLE	CONCRETE	1	2016
STORMWATER MANHOLES - ADDITION - Porritt	MANHOLE	CONCRETE	6	2020
STORMWATER MANHOLES - ADDITION	MANHOLE	CONCRETE	1	2023
STORMWATER MANHOLES - ADDITIONS	MANHOLE	CONCRETE	16	2024
STORMWATER SUMPS	SUMP	CONCRETE	776	1966
STORMWATER SUMPS - NEW	SUMP	CONCRETE	1	2018
STORMWATER SUMPS - NEW	SUMP	CONCRETE	3	2021
STORMWATER SUMPS - NEW	SUMP	CONCRETE	1	2022
STORMWATER SUMPS - NEW	SUMP	CONCRETE	1	2023
STORMWATER EARTHWORKS - 2017	EARTHWORKS	EARTHWORKS	1	2017
STORMWATER EARTHWORKS - 2018	EARTHWORKS	EARTHWORKS	1	2018
STORMWATER EARTHWORKS - 2019	EARTHWORKS	EARTHWORKS	1	2019
STORMWATER EARTHWORKS - 2020	EARTHWORKS	EARTHWORKS	1	2020
STORMWATER DEWATERING SYSTEM - 2024	SUMP	CONCRETE	1	2024



KAWERAU DISTRICT COUNCIL
Asset Management Plan 2025
Water Supply



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Version History

Version	Date	Notes	Author
2015	2015	Final version: AMP - 2015	Tom McDowall
1a	31/01/2018	First revision for 2018	Hanno vd Merwe
1b	5/02/2018	Review: Technical support officer	Tina Mitchell
1c	19/02/2018	Update after MOS review	Hanno vd Merwe
1d	20/02/2018	External review	Kelvin Hill (Western Bay DC)
2	20/03/2018	Submission to Council	Hanno vd Merwe
2a	29/03/2021	First revision for 2021	Tina Mitchell
2b	13/04/2021	2 nd Revision for 2021	Riaan Nel
2c	14/04/2021	Management review	Hanno van der Merwe
2d	20/07/2021	Post Audit Review amendments	Tina Mitchell
3	1/08/2021	Submission to Council	Hanno vd Merwe
3a	28/04/2024	First Revision for 2024	Hanno vd Merwe
4	18/03/2025	Revision following audit review	Peter Christophers
4a	26/03/2025	Confirmation of AMP	Riaan Nell
4b	7/4/2025	A & R Committee review	



SECTION ONE
Executive Summary



PURPOSE OF THE PLAN

The overall purpose of this Asset Management Plan is to describe Council's strategies for the management of its water supply assets. The Plan enables Council to meet the present and expected future needs of the Community over a ten-year period (according to the 10 year Long Term Plan) and into the future (according to the 30 year Infrastructure Strategy).

The Plan details the assets Council owns and describes how the maintenance, renewal and replacement of these assets will be managed and funded to meet required levels of service for Council's Water Supply Activity in the most cost effective way for households and businesses.

The Asset Management Plan collates high-level management, financial, engineering and technical information from various sources and into a single document. It is a tool for communicating complex asset management information and strategies with stakeholders and interested parties.

An independent auditor evaluated the level of provision of asset management for the water supply asset in 2017. The appropriate level was recommended to be raised from the Council's asset management policy of "Core" to "Intermediate" due to the higher risk to the health and well-being of the community in the event of water supply assets failing to deliver an appropriate level of service.

The previous assessment of the asset management level and the level required for "Intermediate" showed a gap of 11 percent overall for water supply. Asset management improvement actions were identified in 2021 and completed by 2024 to close this gap. The remaining and newly identified improvement actions are discussed in Section 0.

ASSET DESCRIPTION

The Kawerau District water supply network comprises springs, pumps, reservoirs and pipes. It distributes potable (drinkable) water to around 2,700 households, 5 large industrial plants and approximately 160 businesses.

Kawerau's water is sourced from a borefield and two springs. From source, the water is treated in an ultraviolet (UV) treatment plant, neutralised, chlorinated and fluoridated (from 1 September 2024), and then pumped to three reservoirs, from where it is delivered to consumers by gravity. Large water users have metered supplies.

The table below summarises the key components of the system.

Key components

Population served	7,820
Number of properties connected	2,910
Length of reticulation (kms) incl Riser/Grav mains	80
Number of pumping stations	2
Number of treatment plants	1
Number of water sources	3

Resource consents are held from Bay of Plenty Regional Council (BOPRC) for the extraction of all natural water that is used for public supply. These stipulate the amount of water that is allowed to be taken and a maximum extraction rate.

The replacement costs and depreciated values of the water supply asset as at 30 June 2022 are shown below:

Replacement and depreciated values

Asset Type	Gross Replacement	Depreciated Replacement
Supply & treatment	\$2,173,980	\$1,035,900
Storage	\$13,730,980	\$4,023,950
Distribution	\$19,574,450	\$8,036,080
TOTAL	\$35,479,410	\$13,095,930

LEVELS OF SERVICE

Customer levels of service

Council monitors and reports its actual performance against measures and targets contained in the Long Term Plan.

Council targets include community satisfaction, number of complaints, the consumption requests and time taken to respond as well as number of supply disruptions. The community survey in 2023 (undertaken by SIL Research) reported 40% resident satisfaction with the water supply service, which is below the national average (73%). The low community satisfaction was caused by discoloured water in the supply network. This issue has been resolved.

The reasons provided by the 40% 'Not Very Satisfied' respondents being:

- Poor quality/brown/dirty (23%)
- Too many chemicals/chlorine (8%)
- Undrinkable/buy bottled water (7%)
- Bad taste/smells (5%)

Technical levels of service

Council meets DWSNZ guidelines and monitors and reports its actual performance against the measures and targets described in the Long Term Plan. Water quality is monitored.

Council commissioned an ultraviolet (UV) treatment plant in 2007; chlorine was added to the supply in 2018 in response to Council's assessment of health risks associated with the supply of water without residual disinfection. Fluoride has been added to the water supply from 1 September 2024.

Constraints to levels of service

Constraints can arise because of capacity, reliability and security of supply, environmental performance and issues relating to the water sources, treatment, storage and reticulation. These are described fully in section 0 of the Plan.

Resource consents

Council holds one resource consent from the BOP Regional Council for the provision of a town water supply from the three bores located at Tarawera Park. An application for a combined consent to take water from the two springs as well as from the borefield was submitted in 2024.

Significant adverse effects

By providing either, an inadequate supply of water, or water of poor quality that does not meet required standards under the 2008 NZ Drinking Water Standards could have negative effects to community social and economic wellbeing.

FUTURE NEEDS

Kawerau's water supply network is generally adequate for current demand and has excess capacity that would enable it to cope with any reasonable increased demand.

The Kawerau District has experienced low general population growth in demand for additional services however has continued to experience a consistent increase in residents over the age of 65. In the 2013 census, the total population of the Kawerau District was 6,363, a decrease of 8.1% or 561 people since the 2006 census. Despite the predicted further decline, the 2018 census showed a growth of general population to 7,460. The Kawerau district estimated population according to the 2023 census is 7,820 which represented a 4.8% increase in population since 2018 or around 1% population growth per annum.

Council hopes to bolster these gains with economic development initiatives, such as the development of a new industrial park and promotion of the natural environment.

The life cycle of water supply reticulation components have been assessed as having lives between 60 to 80 years based on sampling of pipes

and breakages. An assessment in 2020 of the degradation rate for pipes in Kawerau shows a slightly faster degradation than the national averages. This is primarily due to historically high acidity of water. Significant replacement of AC-pipes started in 2021 and will continue until 2029.

LIFE CYCLE MANAGEMENT

Critical assets

Borefield

There are three bores in the Tarawera Park. They are owned by Council.

Springs

There are two springs (Umukaraka/Holland and Pumphouse), which are natural resources. Umukaraka/Holland Spring is in private ownership and Pumphouse Spring is owned by Council.

Pumps

There are five pumps in total, whose use varies according to seasonal demand.

Water Treatment Equipment

Used for pH correction, UV treatment, chlorination and fluoridation.

Reservoirs

Water is stored in three concrete reservoirs. Two reservoirs are located at the Monika Lanham reserve. The third reservoir is located on a Council owned parcel of land at the top of Beattie Road.

Pipes

Pipes are used to transport water from the sources to the Pumphouse, from Pumphouse to reservoirs and from reservoirs to properties.

Other Assets

Other assets are: the Beattie road pump station, telemetry systems, valves, fire hydrants, service connections, meters, backflow preventers and the Pumphouse treatment plant with UV, lime and chlorine/fluoride buildings.

New assets

Water supply capacity in the existing residential network is anticipated to be static for the duration of the planning period. The reticulation system was extended by approximately 2 kilometres in 2018 to service the new industrial subdivision located to the north/east of town on the Putauaki block. Additional lines and points were installed to service the two new residential subdivisions at Porritt Glade and Central Cove.

Maintenance activities

Maintenance activities include daily checks of the springs, pumps, telemetry system, pipes and lime-dosing tank at the UV treatment plant. The tops of the reservoirs are inspected, back flow preventers checked, buildings inspected and network pipes are

flushed annually. Preventative maintenance is carried out on the valves, service connections and water meters. In addition, repairs are undertaken as faults are reported. The NZ Fire Service undertakes regular flow tests of fire hydrants.

Renewal/Replacement

Except for Kawerau's town centre zone, which is an area of geothermal activity, pipes are deteriorating slightly faster National Asset Management Steering Group (NAMS) guidelines.

Council's objective is to maximise asset life without compromising service. Replacement decisions are based on the condition, reliability and maintenance cost and risk profile of an asset as well as its age.

The network was previously divided into six zones. These zones have now been subdivided into smaller zones for the purposes of a prioritised replacement programme developed to replace pipes installed prior to 1996 by 2029.

Deferred Maintenance and Disposal Plan

Council policy is to avoid any deferred maintenance and currently there is no known deferred maintenance for the water supply network. Similarly, there are no specific disposals identified in the Plan.

FINANCIAL SUMMARY

As noted above, Kawerau's water supply reticulation asset maintains adequate capacity for the current and foreseen population and industrial needs.

The funding for water supply replacement is collected through rates. Any funding collected in excess of the actual replacement has been held in a depreciation reserve. Council has since used the reserve and is raising loans to fund the pipe replacement programme.

ASSET MANAGEMENT SYSTEMS AND PROCESSES

Asset management outcomes

Responsibility for asset management outcomes lies with the Manager, Operations and Services.

Accounting and asset management systems

Ozone software is used for accounting and billing. AssetFinda software is used for asset inventory reports, asset information (location, installation date, materials' construction etc.). Council in-house accounting systems are used to recalculate revised depreciation values, and annual depreciation.

Hard copy plans contain layout details of the structures and all known pipes comprising the water supply network. Over time, these will become obsolete as new information is held on AssetFinda.

Key information flows and processes

Key information flows and process linkages are those that relate to the incorporation of Kawerau's Community Outcomes, the preparation and adherence to Council's annual budgets, environmental monitoring and compliance and to ongoing asset management that maintains levels of service to the community.

MONITORING AND IMPROVEMENT PLANNING

Improvement items are outlined in section 0 of the Plan. Key improvement activities centre on continuing to increase the accuracy of Council's information relating to the water supply assets.

The Group Manager Operations and Services will monitor and review improvement items on a six monthly basis. The improvement plan will be reviewed each year as part of the annual plan development process.



SECTION TWO
Introduction



PURPOSE OF THE PLAN

The overall purpose of this Asset Management Plan is to describe Council’s strategies for the management of its water supply assets. The Plan enables Council to meet the present and expected future needs of the Community over a ten-year period (according to the 10 year Long Term Plan) and into the future (according to the 30 year Infrastructure Strategy).

The plan details the assets Council owns and describes how the maintenance, renewal and replacement of these assets will be managed and funded to meet required levels of service for Council’s water supply activity in the most cost effective way.

The asset management plan collects high-level management, financial, engineering and technical information from various sources and combines these into a single document. It is a tool for communicating complex asset management information and strategies with stakeholders and interested parties.

ASSET DESCRIPTION

The Kawerau District has one water supply network, to which 2,910 properties are connected. The network comprises springs, pumps, treatment, reservoirs and pipes. It distributes potable (drinkable) water to over 2,730 households, 4 large industrial plants and approximately 175 businesses. The network serves a resident population of 7,820 people (as recorded in the 2023 Census).

Kawerau's water is principally sourced from the Tarawera borefield and two springs: Umukaraka/Holland Spring located on the Tarawera Falls Road and the Pumphouse Spring on River Road. Water is pumped to three reservoirs, two on Monika Lanham Reserve and the third above Beattie Road.

The water supply network is split into two pressure zones. Water is then delivered to consumers by gravity. The Beattie Road reservoir supplies properties situated in the upper Valley Road area. The Monika Lanham reservoir supplies the balance of the town. Large users of water have metered supplies.

Council holds one resource consent from the BOP Regional Council for the provision of a town water supply from the three bores located at Tarawera Park. An application for a combined consent to take water from the two springs as well as from the borefield was submitted in 2024. **These stipulate the amount of water that is allowed to be taken and a maximum extraction rate.**

The key components of the supply network is listed in **Table 26** below:

Table 26: Key components

Population served	7,820
Number of properties connected	2,910
Length of reticulation (kms) – includes Grav/Riser mains	80
Number of pumping stations	2
Number of treatment plants	1
Number of water sources	3

OBJECTIVES OF ASSET OWNERSHIP

The goal of the Water Supply activity is to provide a quality water supply in sufficient quantities to meet the social, cultural, economic and environmental requirements of our community..

Council has a number of legislative responsibilities relating to the supply of water. One is the duty under the Health Act 1956 to improve, promote, and protect public health within the District. This implies that, in the case of the provision of potable water, Council has an obligation to identify where such a service is required and to provide it.

The activity involves:

- Management of water supply assets and monitoring water quality.
- Repairing or replacing unsound pipes, structures and plant.
- Planning to meet future requirements and improving operations.

Council’s principal objectives are:

- To ensure that the water supply network continues to provide a high quality water treatment and distribution service.
- To anticipate a time when it may be necessary to extend, upgrade or renew the existing water supply scheme, and to plan accordingly.
- To ensure the appropriate maintenance of the water supply network in perpetuity, to maintain its value, and to forecast the estimated future cost of maintenance.
- To put in place a sound management regime for all matters relating to the supply of potable water.

CONTRIBUTION TO COMMUNITY OUTCOMES

The Council Community outcomes to which the water supply activity primarily contributes are set out in **Table 27** below:

Table 27: Contribution to Community Outcomes

Contribution	Outcome
Provision of quality water; Maintenance of the water supply system.	Council infrastructure and services are accessible, age-friendly, effective, efficient and affordable, now and for the future.
Monitoring and compliance with drinking water standards and resource consents	Council regulates monitors and acts to protect public health and safety, to prevent harm and nuisance and to improve standards in Kawerau's home, commercial and public environments.

LINKS TO OTHER STRATEGIC DOCUMENTS

Public infrastructure supports activity that contributes toward the economic, social, cultural and environmental wellbeings of the community. In addition to water supply infrastructure, Council owns the stormwater and wastewater (sewerage) systems, the district's roads and footpaths, and its public parks, reserves, buildings and facilities. The parts that make up those networks and structures and the tools and equipment used to manage and maintain them, are Council's assets.

Council's four critical assets groups, Roading, Stormwater, Water Supply and Wastewater, 30 year planning is described in the Infrastructure Strategy.

Every three years Council develops a Long Term Plan which sets out the range and level of services

it will provide to meet identified Community needs and community outcomes and indicates anticipated expenditure on assets for the next 10 years.

In the intervening years, Council adopts an Annual Plan, which contains the annual budget for Council services. Council's ability to deliver services and to do so at a reasonable cost depends on the condition, performance and risk profile of its assets.

In this way, Council's asset management planning is closely linked to its Infrastructure Strategy, Annual Plan and Long Term Plan.

This Asset Management Plan was developed in conjunction with the Kawerau District Council Long Term Plan 2025-2034. It will underpin and be integrated into the Long Term Plan, and subsequent Annual Plans.



SECTION THREE
Levels of Service



CUSTOMER LEVELS OF SERVICE

The National Research Bureau undertakes an independent survey to measure the level of customer satisfaction with the services provided by Council. The results of these surveys for the Water Supply Activity are shown below. The NRB Survey Results for 2023 is not currently available. Council's own survey in 2023 achieved a 40% Very/Fairly Satisfied result. This low result is primarily due to brown water in the water supply due to elevated manganese and iron content of the Pumphouse Spring. This issue has been resolved.

Table 28: NRB Survey Results – Water Supply

%	2008	2009	2011	2014	2017	2020	2023
Very/Fairly Satisfied	96	97	99	96	96	73	40
Not very Satisfied	4	3	1	3	4	26	60
Don't Know	-	-	-	1	0	0	0

Table 29: NRB Survey Results – Reasons Residents were not very satisfied

	2008	2009	2011	2014	2017	2020	2023
Poor quality of water/contaminated	2	2	-	-	2	29	
Chlorine content	1	-	-	-	-	14	
Low pressure	2	2	1	2	1	0	
Having to pay for metered Water	-	-	-	1	0	0	
Bad taste	-	-	-	2	1	6	
Pipes need replacing	-	-	-	-	-	4	
Poor communication	-	-	-	-	-	2	
Water needs filtering	-	-	-	-	-	6	
Water restrictions	-	-	-	-	-	4	

TECHNICAL LEVELS OF SERVICE

Council will continue to monitor and report its actual performance against measures and targets described in the LTP. All reporting is done through quarterly reports to the Council by the Group Manager, Operations and Services.

Table 30: Technical Levels of Service (LOS)

LOS	Performance Measure
Provision of a quality water supply	>89% Community satisfaction (measured 3 yearly)
The total number of complaints received	Complaints per 1000 connections for each criteria: <ul style="list-style-type: none"> • Clarity - No more than 4 • Taste – No more than 2 • Odour – No more than 1 • Low Pressure – No more than 2 • Continuity of supply – No more than 2 • Council's response – Nil allowable
Safety of drinking water	Compliance with part 4 and 5 of the 2008 drinking-water standards.
Water supply and losses	Consumption <0.6 m ³ per resident per day and less than 200 litres/connection/day loss

Callout and fault response times	<ul style="list-style-type: none"> Urgent call outs: 2 hrs attendance with 8 hrs resolution Non-urgent call outs: 24 hrs attendance and 48 hrs resolution
Reliability of supply	Unplanned shutdowns: <ul style="list-style-type: none"> Reticulation – No more than 12 Pump stations – None Water main breaks – No more than 8
Minimal environmental effects	Maintain compliance with resource consents conditions

WATER QUALITY

Water quality is ensured through the Kawerau Water Safety Plan. Drinking water supply is assessed against DWSNZ 2005(Revised 2018) and the Taumata Arowai rules. Compliance criteria 1 is for bacterial compliance criteria for water leaving the treatment plant, and criteria 6(a) is for bacterial compliance in the distribution network.

A “log 3 credit” requirement for the Kawerau UV treatment plant fed from the Tarawera Bores, Umukaraka/Holland springs source and the Pumphouse Spring source was confirmed in the 2017 by the drinking water assessor.

The P2 determinant for arsenic and cadmium were removed in 2017 and currently only lead levels is monitored.

CONSTRAINTS TO LEVELS OF SERVICE

The constraints that impact water supply network levels of service are shown in the table below.

Table 31: Constraints to Levels of Service

Constraint	Component	Comments
Capacity	Resource Consents	The maximum daily consent allowance is 12,000 m ³ per day. If additional water is required, a new resource consent will need to be obtained.
	Treatment Chemical Storage	If additional water volume were required, more frequent delivery of chemicals would be required. There are no issues for current demand projections.
	Rising mains	There are no issues for current projected demand. Significant increase in water use would result in pressure drops and ultimately pipe replacement with increased capacity.
	Reservoirs	The design capacity complies with DWSNZ's 24 hours' demand storage. The capacity of reservoirs is 11,250m ³ and average daily use is currently 4110 m ³ day.
	Reticulation - normal demand	If pipe diameters are insufficient, low-pressure results. There are no low-pressure zones in the reticulation.

Const raint	Comp onent	Comments
Reliabi lity and Securit y of Supply	Source s	The main sources are from bores and springs; therefore supply from the source is unlikely to fail except during a major disruption such as seismic activity
	Treatm ent Plant Pumps	The treatment plant has two UV units and chlorine dosing equipment. One UV unit can treat sufficient water to meet winter and essential summer demands. There are three pumps, which supply sufficient volume to meet unrestricted community demand almost all year round. During midsummer, Council may request some restraint. A generator can be connected to pumps and the UV plant within eight hours in the event of a significant power outage.

Constra int	Compon ent	Comments
	Rising Mains	Failure of the new 450mm Polyethylene rising main means a standby 375mm steel rising main will be used.
	Reservoir s	Failure of one of the two Monika Lanham reservoirs would reduce the storage capacity of the network by 20% - 40%. Failure of the Beattie Road reservoir means the residents in the Valley Road area would have less pressure. In addition, the storage capacity of the network would be reduced by 40%.
	Reticulati on	The water supply network is typically a grid arrangement following the road layout; therefore, most consumer connections can be fed from two directions.
Environ mental Perform ance		There are no known restraints on the water supply activity because of environmental limits.
Other Capabili ties	Sources	The spring areas are fenced and head works are covered to minimise the likelihood of contamination. Treatment is undertaken to eliminate the impact of any contamination.
	Treatment	UV treatment and chlorination is critical to providing quality drinking water. The standby UV plant should eliminate instances where water is untreated.
	Reservoir s	The Beattie Road reservoir is slightly larger than required during periods of low water use. This can increase the risk of bacterial growth. This is reduced by dropping the level in the reservoir periodically during winter. Reservoirs that are not water and animal proof may allow contaminants to enter the water.
	Reticulati on	Asbestos cement pipes have aged faster than expected and may fail during their expected life times. All asbestos cement pipes are being replaced in next 3 years.

RESOURCE CONSENTS

Council's current resource consent(s) are shown in the table below.

Table 32: Resource Consents

Consent No.	Source	Purpose	Daily volume able to be taken or discharged (m³)	Expiry Date
20329	Tarawera Borefield, Cobham Drive	Providing a town water supply	12,000 m ³	30 June 2025

Under current resource consents, the maximum quantity of water that can be taken for town supply cannot exceed 12,000m³ per day from a combination of the three sources. Council reports to the BOP Regional Council in accordance with the various conditions in the consents.

SIGNIFICANT ADVERSE EFFECTS

Council is unaware of any significant adverse effects that the water supply activity has on the social, economic, environmental or cultural well-being of the community. Current practices are not depleting the natural water resource, because the water that is used flows naturally from a spring.

By providing either an inadequate supply of water, or water of poor quality that does not meet required standards under the 2008 NZ Drinking Water Standards, could have negative effects to community social and economic wellbeing.



SECTION FOUR
Risk Management



RISKS

Physical Risks

Physical risks are generally:

- As a result of the inevitable natural process of deterioration.
- Because of actions of other parties working or travelling in the vicinity of the assets.
- Because of natural disasters (most commonly earthquakes or flooding).

Durable materials, good workmanship, and careful planning will not always be sufficient to prevent physical damage by persons or natural disasters.

The Edgecumbe earthquake in 1987 caused minor damage to one of the reservoirs and affected the quality of the water for a period of time. However, no damage occurred to the network of pipes. This indicates that the current system has low risk from natural disasters.

Financial Risks

Financial risks are those that result in decreased cash flow and/or inability to afford the works that are required.

They include loss of a major ratepayer (requiring the fixed cost burden to be absorbed by the remaining ratepayers), failure to take advantage of any available subsidies and replacing assets before end of useful life, resulting in less than optimal life-cycle cost.

Health and Safety Risk

Health and safety risks arise as a result of physical actions or omissions of Council staff or contractors, or equipment failure. Health and safety risks are minimised by training staff and employing reputable contractors for maintenance and new works.

Environmental Risk

There are environmental risks consequential to the operation of the water supply network and/or physical actions or omissions of Council staff or contractors. These risks are managed by complying with the conditions of resource consents.

Regulatory Risk

The right of the BOP Regional Council to amend consent conditions during the term of consent represents a regulatory risk exposure to Council. However, change to a consent normally only occurs due to failure to meet existing consent conditions. The consequence of this change would be modified treatment practices, which could have capital and operational cost consequences. BOPRC would conduct significant dialogue with Council prior to actually amending conditions and there would normally be a timeframe within which to implement changes.

The special rights and status of Tangata Whenua in the resource consent process also represents a risk to Council. Council believes it can minimise this risk by maintaining cordial relationships with local Iwi.

There is also a risk of prosecution if Council fails to comply with legislation.

Security of Supply

Council does not own the land where the Umukaraka/Holland Springs water source is located.

RISK MITIGATION

Council actions taken to mitigate risks are set out in the table on the next page.

4.2.1. Insurance

Council has adequate insurance in place to cover the replacement and/or repair of buildings and other valuable assets in this group that are damaged due to disaster.

4.2.2. Civil defence and emergency response plans

Council has identified essential staff for recovering the water, wastewater and roading systems in the event of a civil defence disaster.

4.2.3. Financial

Council funds depreciation at a rate commensurate with the loss of life of the various asset components. This funding is invested until required for replacement.

Table 33: Risk Mitigation

Key Exposure	Class of Risk Probability	Residual Exposure Consequence	Mitigation
Physical			
Seismic Event	Medium	High	Earthquake design standards
			Spare capacity
			Special Insurance cover (LAPP scheme)
			Monitor spring water quality after EQ
			Bore fields can supply essential demands
Flood Event	Low	Low	Storage capacity of reservoirs
			Valves can isolate breaks in pipes
Damage by Others	High	Moderate	Staff available 24/7
			Test water for contamination
			Head works and Pumphouse security fenced
Failure due to deterioration of assets	High	Low	Regular plant maintenance
			Staff available 24/7
			Water restriction will be put in place.
			Spare capacity at pump stations
			An asset replacement programme
			Standby generator available within 8 hours
Firefighting demands during peak flow	Medium	Moderate	Domestic users to be alerted to quickly reduce consumption (upper Valley Road area)
Financial			
New large consumer	Moderate	Low	Regular meetings with development agency
			Not all available water used
			Developments take time, which allows negotiations to take place
			Developments require Council consent
Loss of large consumer	Moderate	Low	Regular meetings with large industries
			Plant can operate on lower flows efficiently
Loss of water source	High	High	Investigate options to secure ownership/supply
			Find another water source
Health and Safety			
Injury to persons or property due to operations	Low	Low	Health and safety practices in place
			Trained staff
			Insurance to cover costs
Sabotage	Low	Moderate	Plant security
			Robust plant
Injury to public	Low	Low	Access denied to treatment plant site
			Significant portion of asset underground

Key Exposure	Class of Risk Probability	Residual Exposure Consequence	Mitigation
Environmental			
Change of resource consent to reduce available water	Low	Moderate	No known other demand for spring water
			Close liaison with the BOP Regional Council
			Water for community supply a permitted activity under BOPRC water and land plan
Regulatory			
Regulations (changes) relating to the access and provision of drinking water	Moderate	Moderate	Awareness of DWS and best practice
			Regular monitoring
			Compliance with standards and conditions of consent
Security of Supply			
Unable to obtain water from source	High	Moderate	Negotiation with water sources not owned



SECTION FIVE
Future Needs



CURRENT CAPACITY

Sources

Current demand is within the supply capacities of the sources. Extraction from the two springs and the bore fields is limited to a maximum volume per day by resource consent and the treating capacity of the UV Treatment Plant. The maximum capacity that can be treated is 12,500 m³ per day.

Reservoirs

Reservoir capacity is typically expressed as the number of days' supply at average or peak demand. The reservoir water levels are maintained between set points to minimise the number of times pumping is required each day to maintain pressure in the network and keep above minimum storage volumes. As demand increases, pumping for longer periods per day is required and then two pumps are used as demand increases further.

The three reservoirs provide 11,250 cubic metres of storage, which equates to 2.7 days of supply at the current average demand of 4110m³ per day, and one day at current peak demand.

Reticulation

The existing reticulation is able to meet the demands of the community for volume except low pressure in places during summer daily peak demand times.

FUTURE DEMAND

Kawerau District has experienced and is expected to continue to experience low growth in demand for additional water supply services.

There are a number of vacant residential sections in the town. Even if these sections

were occupied, the existing water supply network would cope with the additional demand.

The boundary between Whakatane and Kawerau districts was adjusted in 2012 with the subsequent development of a new industrial park on SH34 opposite the existing mill site. Industrial development commenced in 2018 with the construction of the Waiū dairy factory in June 2019. The extension of 2km of 150mm water main occurred in response to this development.

TRENDS

Population growth

In the 2013 census, the total population of the Kawerau District was 6,363, a decrease of 8.1% or 561 people since the 2006 census. Despite the predicted further decline, the 2018 census showed a growth of general population to 7,460. The Kawerau district estimated population according to the 2023 census is 7,820 which represented a 4.8% increase in population since 2018 or around 1% population growth per annum.

Council hopes to bolster these gains with economic development initiatives, such as the development of a new industrial park and promotion of the natural environment.

As is the case with the rest of NZ, the population is aging with an increasing fraction of the population receiving state funded superannuation and employment benefits. The average income is expected to remain lower than the national average and there will be an increased requirement for external funding to maintain the infrastructure in the future.

Table 34: Statistics NZ Population Projections – Kawerau District

Population Change 2006–2043 (NZ Stats)								
Projected Range	2006 <i>Census</i>	2013 <i>Census</i>	2018 <i>Census</i>	2023	2028	2033	2038	2043
High					8,410	8,650	8,830	8,970
Medium	6,921	6,363	7,460	8,420	8,000	8,020	7,970	7,860
Low					7,610	7,410	7,140	6,800

NEW CAPITAL REQUIREMENTS

Capital work has been carried out to improve water quality with the replacement of old water mains and the construction of the new pump station at the treatment plant.

The installation of the electronic controls and telemetry for the bores, the springs and all pump stations will provide additional resilience around supply volumes.



SECTION SIX
Lifecycle Management



CRITICAL ASSETS

Asset criticality is the relative risk of high cost arising from failure of that asset. Criticality is determined by the cost and risk of potential failures and the relative importance on the society and environment. Evaluating the different failure modes of critical assets determines what maintenance, capital expenditure and conditioning monitoring needs are.

In general, critical assets are maintained on risk management principles, whereas non-critical assets are maintained/renewed reactively (replace after fail).

Bores

The Tarawera bores are on Council owned land, fenced and protected in steel containers. This greatly reduces any contamination risks to the bores.

Springs

The two springs (Umukaraka/Holland and Pumphouse) are natural resources. Headworks consisting of rocks, wooden walls, plastic covers, pipes and coarse filters have been constructed to capture the water. The sites are fenced. This construction reduces the potential for contamination of the water from animals, birds and humans.

Both springs occasionally have detectable faecal coliform present. The springs are low in solids, have a low pH and are considered very pleasant to drink.

Pumps

Water from the bores and the springs are piped to the pump house treatment plant by gravity pipes. The water is then pumped to the two reservoirs in Monika Lanham Reserve from the pump house. One pump has sufficient capacity to meet normal winter demand, a second pump is used during high demand periods and a third pump is on standby.

The pumps were installed in 1968 and operated without significant problem. These 2 pumps were replaced in 2024 with a further 2 pumps being added to ensure sufficient backup.

There are also two in-line pumps (duty and standby) that transfer water from the reticulation to the Beattie Road Reservoir.

Water Treatment

Treatment of the raw water comprises:

- pH correction involving caustic soda dosing to target levels of 7.0 – 8.5 pH.

- UV treatment to destroy harmful micro-organisms in the source water before they enter the reticulation

- Chlorination to a target level of 0.5 parts per million to safeguard the reticulation.

Reservoirs

There are three concrete reservoirs. The reservoirs store water at an elevation that gives an even pressure to users even when the flow varies. They store enough water so that faults in the pumps do not impact on water being available from the network.

Pipes

Pipes are used to transport water from the sources to the pump house, from pump house to reservoirs and from reservoirs to properties. There are approximately 7 km of pipes from the springs to the reservoirs, ranging in diameter from 250 mm to 450 mm. The reticulation comprises 73 km of pipes with diameters from 50 mm to 250 mm.

The diameters profile, age and materials of the pipes distributing water around the town is shown in *Figure 3* and *Figure 4*.

OTHER ASSETS

Telemetry

Water levels, flows, pumps operating, UV levels, chlorine, pH and other data are electronically monitored. If monitoring detects levels are outside set parameters, alarms are triggered and any problems rectified. Information can be remotely viewed by computer and is collected continuously and stored for analysis as required.

Valves

Valves are installed throughout the water supply network to enable sections of the pipe to be isolated for maintenance. The valves are predominantly gate valves and the diameter of the valve is the same as the pipe to which the valve is connected. There is an ongoing programme of refurbishing faulty valves when they are detected. Improving knowledge on the overall condition of the valves is part of the improvement plan.

Fire Hydrants

Fire hydrants are provided for firefighting purposes. Hydrant box covers are painted yellow and painted triangles are located at the road centre line. Blue reflective centre line markers have been installed as an additional indicator of hydrant position to assist with location at night.

The NZ Fire Service annually tests the hydrants for workability and flow. Remedial action is taken with non performing hydrants.

Service Connections

Each property is provided with a service connection to the water main outside the property. The connection consists of a length of pipe to the property boundary and a gate valve. Typically, the service connection is 20mm in diameter. The location of the service connection is noted by a white mark on the kerb.

Meters

There are approximately 50 properties that have water meters installed because of the potential to use above average quantities of water. The annual usage through water meters is in the region of 230,000m³. Meters are read quarterly.

Backflow Preventers

All metered properties are fitted with backflow preventers. Low risk properties are fitted with non-testable devices. Large industries or industries with chemical or biological on-site risks are fitted with testable devices. Unmetered properties are being fitted with non-

testable backflow preventers during the reticulation replacement works.

Generally speaking, all systems are in a reasonable state of repair, as they are maintained and renewed regularly. It is expected that the existing levels of service (pressure, volume) will continue for the medium to long term.

Buildings

Water supply buildings are the pump station structure, the caustic soda dosing structure and the UV and chlorine treatment plant building.

These are constructed of concrete block and are regularly maintained.

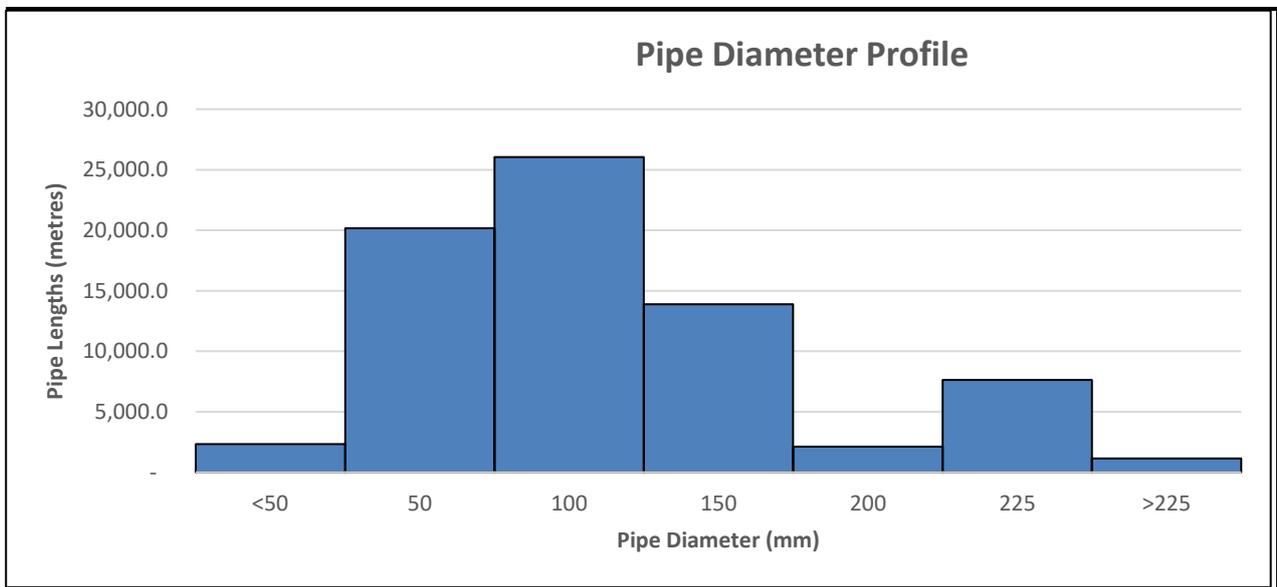


Figure 3: Diameter Profile of Water Supply Pipes

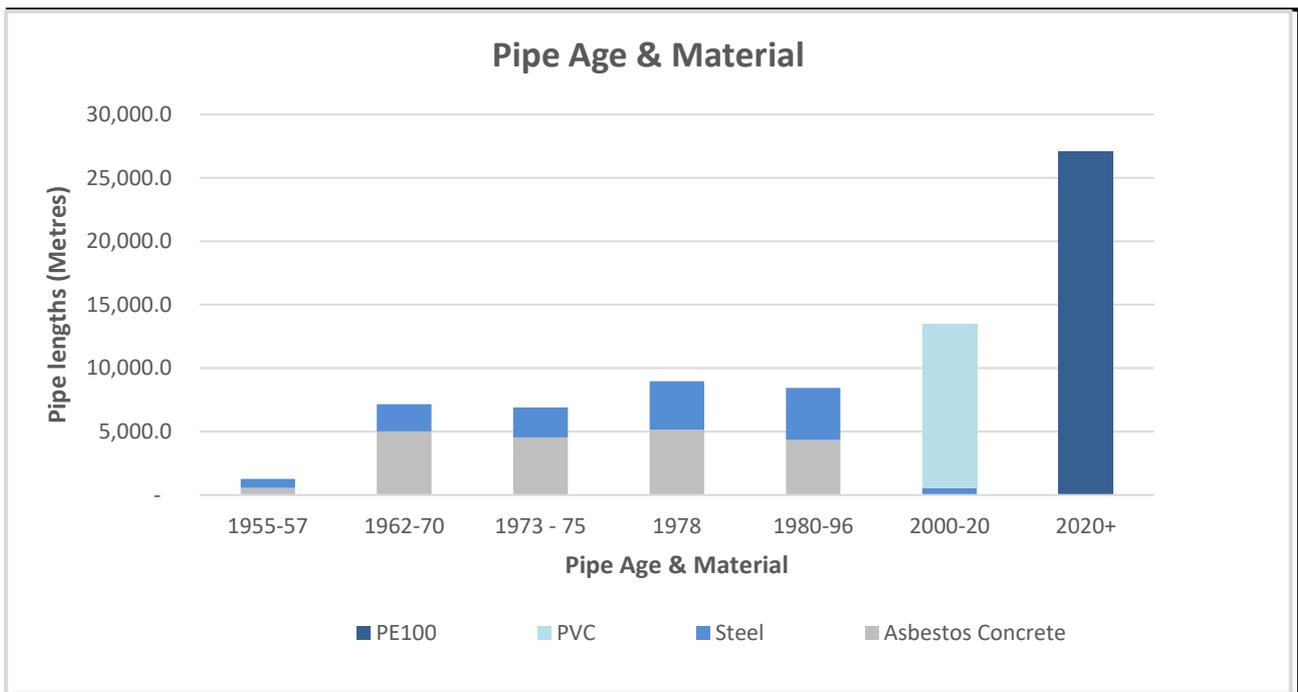


Figure 4: Age/Material Profile of Water Supply Pipes

ASSET DATA

6.3.1. Material Type

Pot holing of pipes in various locations around the town has been undertaken to determine the type of pipe material actually in the ground. This potholing information has been the basis for the data loaded into AssetFinda and forms the basis of the material types. While it is impossible to guarantee that every pipe has the correct material type recorded it is considered that the material type would have 98% accuracy.

Large scale water reticulation replacement is currently underway. The age material profile will be updated at the end of the programme. It is planned to replace all the asbestos concrete and the majority of steel pipes older than 1996.

6.3.2. Pipe Diameter

The pipe diameters in AssetFinda have been taken from the existing as built plans. Various cross checks have been undertaken to visually assess for glaring errors in the location of pipe diameters and there is considered a high level of confidence that the diameter in AssetFinda match those in the ground. It is estimated that the size of pipes in AssetFinda are in excess of 95% accurate.

6.3.3. Asset Locations

Data from as-built plans has been plotted in AssetFinda. This information has been

visually checked to make sure there are no unusual results.

It is considered that the location and number of valves, hydrants and other features shown in AssetFinda is very accurate.

MAINTENANCE PLAN

General

Professional services that include maintaining and developing asset inventories, supervision and management of the network are generally provided by Council staff. Where necessary, specialist assistance with modelling, pipe ageing and asset planning is obtained from external consultants.

Regular activities include pipe repairs, pump maintenance, monitoring, attending customer queries, meter reading and valve maintenance.

Water quality sampling to drinking water standard DWSNZ 2008 is undertaken by an independent contractor.

Springs and Bores

Every day the springs and bores are checked to ensure site integrity has not been breached and flow rates are recorded. The coarse filters are cleaned weekly.

Pumps

The pump house pumps are inspected daily for any visible sign of malfunction. This includes looking for leaks and vibration. The pumps are greased on a weekly basis.

UV Treatment Plant

The pipe work in the UV treatment plant is inspected daily for leaks and the digital readout of the plant performance is checked daily.

UV lamps are monitored and replaced when required. Lamps are checked for cleanliness at predetermined cycle times and cleaned if necessary, to maintain performance.

Chlorine Treatment

Chlorine residual is maintained with the addition of chlorine gas. The dosing rate is setup manually to maintain a residual of 0.5 ppm for a constant flow system. The chlorine dosing system is inspected daily for any visible sign of malfunction.

pH Control

The pH of the water supply is monitored continuously. The recorded pH information is checked daily and caustic soda flow level adjustments made depending on results. The quantity of caustic soda is checked daily to ensure adequate dosing material is available. The caustic soda release valve and cylinders are checked daily.

The caustic soda system replaced the lime dosing plant in 2024 as it was seen as a better and safer method for correcting pH.

Telemetry

Telemetry is inspected periodically to ensure it is functioning properly and reviewed annually for long-term suitability and maintenance requirements.

Reservoirs

The tops of the reservoirs are inspected annually for locations where rainwater could enter the tank.

The two Monika Lanham reservoirs were identified as a potential contamination source post UV treatment. In 2016, the reservoirs were covered with tarpaulins to eliminate this risk. A decision was then made by Council to invest in a more robust form of internal and external waterproofing (Aquron 7000 sealing and crack/joint injection) than the previous asphalt roof sealing method; this was undertaken alongside the introduction of chlorine in 2018.

The two Monika Lanham reservoirs are cleaned 3-yearly to remove any lime build-up in the

bottom of the reservoir. Lime has not build up in the Beattie Road reservoir.

Pipes

The network pipes are flushed annually by opening fire hydrants to increase water velocity in the pipes which flushes out settled material.

No preventative maintenance is carried out on the network pipes. Faults are repaired as reported and recorded in the Assetfinda database.

Valves

No preventative maintenance of valves is undertaken. If, during normal network shutdowns, malfunctioning valves are detected, they are refurbished (seals replaced, threads cleaned).

The negative impact of not having all valves fully operational is that some repairs may take longer than they should and more customers are impacted, as the shutdown will need to cover a larger area.

Fire Hydrants

The NZ Fire Service undertakes regular flow tests of hydrants in the network. Any that are difficult to operate or have low flows are either serviced or replaced.

Service Connections

No preventative maintenance is undertaken on service connections. Repairs are undertaken as faults are reported.

Water Meters

No preventative maintenance is undertaken. Meters are read quarterly and changes in flow are monitored. If significant changes occur, the meter is checked and repaired or replaced if found to be faulty.

Back Flow Preventers

The performance of back flow preventers is checked annually by an appropriately certified person in accordance with established national standards. Faulty equipment is renewed or replaced.

Buildings

The buildings are maintained when required and are in good condition. As they are constructed of concrete block they require minimal maintenance, and it is expected they will have a life of at least 50 years.

RENEWAL / REPLACEMENT

Except for Kawerau's town centre zone, which is an area of geothermal activity, pipes deteriorate in line with the National Asset Management Steering Group (NAMS) guidelines with some small variations in some areas where degradation was faster.

Council's objective is to maximise asset life without compromising service. Replacement decisions are based on the condition, reliability and maintenance cost and risk profile of an asset as well as its age.

Due to observed increase degradation of asbestos cement pipes and some steel pipes as well as the buildup of manganese in these pipes, it was decided in 2018 to replace all asbestos cement pipes and valves and steel pipes older than 1996.

New water reticulation zones was developed and used to replace the reticulation. Once the replacement program is completed, these new zones will replace the older reticulation zones which are also used for stormwater and wastewater reticulation.

Springs

The spring headworks have wooden retaining walls around rocks that allow water to flow from the ground and be collected. Failure will be gradual and will not interrupt the ability to use the water. The headworks for Umukaraka spring was rebuild in 2024.

Gravity main: Umukaraka Springs to Pumphouse

The pipe was installed in 1968, and testing undertaken in 2007. The pipe appeared to be deteriorating at the anticipated rate. The replacement of this pipe has been programmed to occur in 2037-39. The approximate cost of replacement is projected to be \$4.2 million.

Bores

The bores are currently the main source of drinking water. The remaining life of the bore pumps is currently estimated at 25 years. The bore liners were inspected in 2016 and found to be in excellent condition. The bore headworks were rebuild in 2019 and their estimated life is t 60 years.

Rising Main: Monika Lanham Reserve Reservoirs

This is a critical asset and replacement involved laying an alternative pipe then decommissioning the existing one. While it was not expected to fail until after 2028/29,

because the pipe is critical, replacement was undertaken in 2020/2021.

The existing rising main was replaced with a 450mm Polyethylene line. This new pipe can be used to supply water to the reservoir at 600m³/hr. The 375mm Asbestos Cement line is the backup line and is capable to maintain flows of 530m³/hr.

Reservoirs

The expected life of concrete reservoirs is 80 years. Examination of the reservoirs indicates they are in good condition and can be expected to outlive that expected life. Before altering the life in the asset register, an analysis of the concrete deterioration was required. Replacement of the three reservoirs is currently programmed to occur in 2034/35 (\$2.0 million), 2058 (\$2.0 million) and 2063 (\$2.0 million) – at 2024 costs.

Pipes

The theoretical end of life of all pipes is based on the installation date and life expectancy. However, life expectancy can vary due to the following:

- Different lives for pipes of the same material but different diameters.

- Local ground conditions cause different deterioration rates.

- Quality of the pipe installed (different manufacturers produced different quality pipes.)

- Operating pressures etc.

Condition assessment undertaken in 2007, 2017 and 2018 determined that that overall, the deterioration rate for some pipes was faster than the National Asset Management Steering Group (NAMS) manual guidelines. Low pH weakens AC pipes by leaching cement from them. The pH value of the water was lower than the optimum level until lime dosing was commenced in 1997.

Lime dosing (replaced with caustic soda) is expected to reduce deterioration and have a detectable effect on the life of pipes installed after 1980.

A significant portion (19%) of the reticulation consist of steel or ductile iron. Sections of pipe installed in 1957 show deterioration levels that are fair and in line with National Asset Management Steering Group (NAMS) manual guidelines, while steel connections and fittings are showing significant deterioration.

Pipe replacement commenced in 2009 and it is planned to replace all the AC and steel pipes in 2021 - 2028. Pipe sizes are reviewed during renewal design. Issues such as existing flow problems and future demands

over the life of the asset are taken into account.

When pipes require replacement, it is most economical to replace the associated assets at the same time. Valves, fire hydrants and service connections are therefore renewed as part of the replacement programme.

The life expectancies used to calculate depreciated values are listed in Table 35.

Table 35: Asset Life Expectancies – Water Supply

Asset	Life Expectancy Years
AC pipes	70
PVC/PE pipes	80-100
Steel and ductile iron pipes	20-40
Concrete lined iron pipes	80
Valves	60
Telemetry	25
Meters (Bulk)	15
Pumps	25
Bores	60
Hydrants	60
Reservoirs	80
UV treatment plant - pipework	40
UV treatment plant – electronics	25

Water Meters

Replacement is based on installation dates and a service life of 30 years.

New Assets

A 2km extension to the water main was installed in 2018 along State Highway 34 for the supply of water to the Industrial/commercial development located to the north/east of town on the Putauaki block.

Additional lines and points being the result of two new residential subdivisions Porritt Glade and Central Cove are vested with Council.

Funding was subject to Council's financial contributions policy.

Deferred Maintenance

Currently there is no known deferred maintenance with the water supply network and the full service potential of the asset is being maintained. Council policy is to avoid any deferred maintenance.

Disposal Plan

There are no specific disposals identified in the Plan. Pipes that are no longer required or are replaced due to failure will not be retrieved as they have no value. Normally old pipes will be replaced by new pipes in the same location. If pipes are not replaced, they will be made safe in situ.



SECTION SEVEN
Financial Forecasts



FUTURE REQUIREMENTS

Table 36: Estimated Financial Requirements (includes inflation)

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
<u>Expenditure</u>									
Personnel costs	259,458	267,892	275,364	282,595	289,346	295,616	301,886	307,916	313,706
Materials	476,505	405,864	416,729	514,804	442,266	455,340	463,314	476,036	577,007
Internal charges	351,760	361,080	370,400	378,720	386,700	394,680	402,660	410,640	418,300
Overheads	323,190	311,510	310,450	348,440	331,800	330,120	336,070	349,890	370,650
Interest	455,000	585,000	715,000	845,000	910,000	910,000	910,000	910,000	910,000
Depreciation	703,195	743,093	850,874	879,344	881,508	963,403	965,337	969,252	1,045,739
	2,569,108	2,674,439	2,938,817	3,248,903	3,241,620	3,349,159	3,379,267	3,423,734	3,635,402

Asset renewals	2,228,836	3,985,552	2,798,410	2,842,120	211,490	183,110	187,950	386,120	197,170
Loan Principal	70,000	90,000	110,000	130,000	140,000	140,000	140,000	140,000	140,000
	4,867,944	6,749,991	5,847,227	6,221,023	3,593,110	3,672,269	3,707,217	3,949,854	3,972,572

Table 12: Estimated Asset Renewals (in today's \$)

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Headwork	-	8,900	-	-	56,300	-	-	17,100	-
UV Plant/Chlorine	30,836	562,750	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Pump Station	60,000	16,600	21,700	-	-	-	-	-	-
Valves & Hydrants	88,000	88,000	524,000	88,000	67,100	88,000	88,000	226,500	88,000
Laterals/Tobies	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Pipes	2,000,000	2,000,000	2,330,000	2,340,000					
	2,228,836	2,726,250	2,940,700	2,493,000	188,400	153,000	153,000	308,600	153,000

FUNDING POLICY

The Revenue and Financing Policy sets out how Council's activities are funded. This policy has been developed to meet the requirements of the Local Government Act (LGA) 2002.

Council has broken its business down to activity level. In general, Council has assessed the availability of an activity as a public benefit and the use of an activity as a private benefit.

'Availability' relates to the costs incurred to keep a service or asset in such a condition that it can become operational within a short start-up period (e.g. maintaining the water network even if it was not used, renewing assets).

'Use' relates to costs incurred as a result of the asset being used (e.g. chemicals and electricity).

Distribution of Benefits

The water supply network is a benefit to the district as a whole as well as users that are connected to the service. The costs of having the network available is a public good and recoverable from all ratepayers through the general rate. The estimated "use" cost is recovered from those connected to the network through a targeted rate.

When Benefits Accrue

Council has identified a substantial intergenerational component (i.e. benefits arise over time). The water supply infrastructure has a long life, so more than the current generation of ratepayers benefit. Therefore, Council wishes to ensure that future ratepayers meet some of the cost. This can be achieved by the funding of depreciation over the life of the assets.

Funding Sources

Water supply is 85% funded from general rates and targeted rates to properties connected to the network 15%

As the depreciation reserves grow, increased interest revenue from the investment of these reserves lowers the amount of depreciation funding that is required from General Rates. Inflation figures are provided by BERL, and used to determine the revaluation of the asset figures on a three-yearly cycle.

Distribution of Benefits

The mix of a targeted rate and the general rate is considered to reflect both the benefit to individuals that have water supply, and the community, which benefits from the water supply being publically available.

Costs and Benefits of Separate Funding

Running a Council funding system has costs involved with assessment and collection of revenue. In making funding decisions, Council must consider whether the activity should be funded from a separate source (most commonly a user charge or targeted rate).

The Local Government Act specifically mentions cost efficiency and transparency (in other words, whether or not people will be able to relate the charge to the activity that it is funding). The benefits of a transparent charge to users of the water supply outweigh the costs of having a uniform annual charge for this activity.

Funding Source

Water distribution is funded from general rates, uniform targeted rate and water by meter charges (for the high water users with water meters).

VALUATION

The water supply network infrastructure is valued by a competent valuer on a three yearly valuation cycle. Assets are valued at fair value determined on a depreciated replacement cost basis. The most recent revaluation is effective as at 30 June 2022.

Asset basis of valuation

Valuation of water assets are done on the following basis:

Table 13: Valuation Basis – Water Assets

Asset Type	Valuation Basis
Land	Market value
Buildings	DRC
Plant	ODRC
Reticulation	ODRC

The Depreciated Replacement Cost (DRC) refers to today's cost of replacing the asset with the same or a similar asset and depreciated over the life of the asset.

The Optimised Depreciated Replacement Cost (ODRC) refers to today's cost of replacing the asset with another asset that provides the same level of service most efficiently and depreciated over the life of the asset to reflect its current value and remaining economic life. The optimised replacement cost assigned to each asset has been determined by suitably qualified and experienced professional persons and has been peer reviewed.

Expenses

Maintenance costs and operating costs are expensed in the year they are accrued. The capitalisation threshold for water assets has been set at \$1,000 or the actual value of individual components where they are identified by AssetFinda.

Changes in asset valuation

The costs associated with renewing assets and providing new or improved asset infrastructure are capitalised and depreciated in accordance with the assessed economic life of each asset. This applies also, where a developer provides infrastructure to be taken over as public assets by Council.

Assets are recorded at fair value determined on a depreciated replacement cost basis by an independent valuer. The most recent valuation is as at 30 June 2022.

Capitalisation Threshold

The following definitions are used for asset management purposes and the financial treatment is summarised below:

Maintenance is work done that is of an operational nature that can contribute to the asset life reaching its maximum potential but neither increases the value nor extends the remaining life of any asset.

Renewal is work done to replace an existing asset. The cost of replacement must be recorded as a capital expenditure, be greater than \$1,000 and recorded in the asset register as a new asset with a unique identifier.

If the asset replaced is discarded or sold, it must be removed from the asset register and any residual value must be formally written off.

An addition to the asset register is required when a new asset is created with a value exceeding \$1,000. A new asset must be uniquely identified, and recorded in the asset register. The record in the asset register requires an assessment of the asset's remaining life expectancy (based on straight-line depreciation or estimated remaining life).

Where the asset register recognises an individual component worth less than \$1,000, or where a length of pipe greater than 12 metres is replaced, the threshold does not apply and the additional value is capitalised.

KEY ASSUMPTIONS

The current valuation and renewal profiles are based on data currently available.

Asset condition

In the case of water pipelines, the condition is taken as being directly related to its age unless the testing done in 2007 indicates otherwise. The testing of samples from repairs on pipes provides additional information.

Replacement cost

The projected replacement costs and depreciated values shown in the table below have been derived from Council's asset register. Further work identified in the improvement plan, will be carried out to verify the condition of the assets and the potential need for future replacement.

Table 14: Replacement Costs and Depreciated Values

Asset Type	Gross Replacement	Depreciated Replacement
Supply & treatment	\$2,173,980	\$1,035,900
Storage	\$13,730,980	\$4,023,950
Distribution	\$19,574,450	\$8,036,080
TOTAL	\$35,479,410	\$13,095,930

Council's practice for calculating pipeline replacement costs is:

All pipeline replacement would be carried out using Polyethylene pipe.

The construction environment is brown field (replacement of existing rather than green field construction).

Unit rates for replacement are derived from the latest valuation of assets.

Replacement of pipes includes valves, fittings, and house connections. Unusual pipe sizes will be replaced with the next size up.

No optimisation or efficiencies in pipe size or lengths have been allowed for in replacement costs

Depreciated value and life expectancy

Straight-line depreciation has been adopted for all above ground assets. The life expectancies shown in Table 10 were used to calculate depreciated values.

The town centre area of Kawerau has geothermal activity. The heat and chemicals present significantly shorten the fibre cement pipe life as well as other materials in this area.

Pipes in the geothermal area have an estimated life half that of similar assets in other areas.

It is accepted that the above approach requires improvement, because for some assets, the actual need for replacement is out of step with the theoretical depreciation. The improvement plan includes steps to make the valuation and renewal projections more robust.

Population

Further sustained decline in population as predicted by Statistics NZ could seriously erode the rating base of the District, placing a higher burden on the remaining residents for any infrastructure upgrades and possibly affecting capacity to fund renewal works. Population trends must therefore be reviewed as frequently as reliable data can be obtained.

Other assumptions

All expenditure is stated in 2022 values, with allowance made for the inflation over the planning period.

All costs are GST exclusive.

Operational costs are generally shown to increase in relation to inflation.

Renewal costs are based on anticipated replacement requirements.

The costs of insurance and risk mitigation are included in the forecasts.

Climatic and other environmental trends are expected to continue as they have in the recent past.

The plan provides scope for some growth in industrial/commercial demand.

Development Contributions

Section 106 of the Local Government Act 2002 requires local authorities to adopt development contributions or financial contributions policies.

Spare capacity in Council's infrastructure means it can cope with some growth. Therefore, Council does not need to extend infrastructure to cope with increasing demand.

Council's policy is to not assess development contributions but to retain the provisions of the District Plan that allow the assessment of financial contributions.

Financial Contributions

New subdivisions or developments may require the extension of Council infrastructure networks for water supply, wastewater disposal and roading. Council's financial contributions policy provides that the cost of these extensions is the responsibility of those who create the demand. Subdividers and developers would be required to make financial contributions to meet the full cost of additional infrastructure necessary to support their subdivision or development.



SECTION EIGHT
Systems & Processes



Responsibilities for Asset Management Outcomes

The Engineering Manager is responsible for the development of this asset management plan, including maintaining the integrity of Council's asset information.

The Engineering Manager is also responsible for the identification, budget, planning, programming and undertaking of works required for the maintenance and renewal of Council's Water Supply assets.

The Group Manager, Finance & Corporate Services is responsible for providing an overview of the development of this asset management plan, for ensuring that future projects are incorporated in Council's Long Term Plan and that there is consistency between these documents.

The Group Manager, Operations and Services is responsible for delivering the outcomes for the Water Supply activity. This includes ensuring that the assets are maintained and operated to Council's requirements, that adequate budgeting for maintenance, operating and improvement costs are provided.

Accounting and Asset Management Systems

Billing/Accounting system

Council uses the Ozone software for its accounting and billing systems. It does not store or compute asset management information, but can be used to determine the number of connections to the water supply and the number of properties billed for separate water supply rates.

All formal asset management financial reporting including valuation is currently held in Excel spreadsheets.

This is being migrated into the AssetFinda system.

AssetFinda

AssetFinda is the software used to manage and produce asset inventory reports. It is integrated with 'Map Info' data tables to permit input, querying, reporting and financial modelling using the asset register data. The spatial location of the water supply assets can be laid over aerial maps, property boundaries along with wastewater and stormwater assets.

The software has yet to have financial data added to allow financial modelling for current replacement and depreciation value reporting.

New assets information (location, installation date, materials' construction etc.) is entered into AssetFinda at the time the asset is installed.

The default valuation process used by AssetFinda is capable of recognising asset condition, extending the life of an asset and recalculating revised depreciation value and annual depreciation.

The improvement plan proposes that the appropriate financial information be entered into AssetFinda.

Hard copy plans

Layout details of the pipes and structures are available for most of the water supply asset.

Attaching information like pump performance, type etc. to assets is a desirable improvement. Also linking photographs and 'as built' drawing to the asset will improve the data.

Key Information Flows and Processes

Key information flows and process linkages include:

- Translating the Community Outcomes into detailed levels of service that can be embodied into Asset Management Plans

- Preparation of annual budgets, and ongoing reporting

- Updating asset data as information becomes available through maintenance and service repairs

- Ongoing compliance monitoring and reporting of environmental performance

- Ongoing management of the asset to ensure that service levels are maintained

Quality management

Quality management is governed by the requirements of DWSNZ 2005. This involves a comprehensive programme of water sampling and testing at source, treatment point and the distribution system. The testing programme provides assurance that the water quality is satisfactory.

Sampling points and frequencies are agreed with and all test results provided to Toi Te Ora Public Health. These results, information about maintenance processes and the public health risk management plan are used to determine the water supply grading.

Maintenance

Maintenance is carried out reactively for most asset faults. The criteria that will result in renewal rather than further maintenance are:

Is the asset important for maintaining service levels and have the service levels in the current year already been compromised by failures? If yes, consider renewal.

What has been the failure history? If the current failure is part of a series, then consider renewal.

Is the cost of the maintenance comparable to the cost of renewal? Where repair costs are high (e.g. reinstatement of road pavement) then consider renewing a logical minimum quantity of asset to prevent further expensive repair costs.

Will maintenance preserve asset life? If yes, then carry out maintenance.

Policies for renewing assets

Replacing network components with larger components to improve capacity is treated purely as renewal capital expenditure. This is because the additional cost of larger components is not material compared with the renewal cost of component of the same kind.

Renewal

Renewal of assets will occur in accordance with practice described in each section of this document.

Constructing new assets

Following many years of no demand for additional capacity, recent land developments for industry and residents have resulted in the need for additional new assets. Funding to provide additional capacity would be treated on its merits, but in most cases, the funding would be sought from the developers/subdividers.

Assets vested in Council

Subdivisions include water supply networks. These are installed at subdivider's expense to approved Council standards and then vested in Council.

'As built' new works occur either due to subdivisions, or the installation of new assets. In both instances, detailed records of new works are obtained. These new assets are added to the AssetFinda database.

Asset disposal

Most of the components are essential to continuing provision of the service. Extensive decommissioning and disposal is very unlikely.



SECTION NINE

Monitoring Improvement Planning



Asset Management Performance Measures

The broad objectives of asset management are:

- To optimise the life of the assets
- To minimise life cycle costs
- To maintain agreed levels of service

Although it is possible to measure the success or otherwise of the asset management activity over the long term against the three criteria above, it will obviously be difficult to measure success or otherwise in the short term in a way that management control can be exerted. For example, it will be impossible to determine whether the life of a facility has been “optimised” until the actual age nears the expected life and a remaining life assessment can be meaningfully carried out.

An assessment of the asset knowledge and processes currently carried out, in terms of “best practice for a NZ authority of this size” provides an indication of how well Council is likely to be meeting these long-term objectives. This assessment is therefore part of the Improvement Plan. It should include evaluation of the monitoring of operations and costs to provide information on the achievement of service level (both public measures and technical standards). It should cover previously planned improvement actions, noting whether these have been achieved and how they are contributing to current processes. It should check how the initiatives undertaken are ‘rolled out’ from asset management staff to those carrying out the work, and how carefully field information is recorded and returned to add to the asset knowledge case.

Improvement Actions

Table 15: Improvement Actions

Improvement Item	Comment	By When	By Whom	Cost
Expand knowledge of AssetFinda functionality	Training staff (EM & 3WE)	Ongoing improvement	GMOS	\$5,000
Maintain AssetFinda database	Three Waters Engineer recruited and being trained	Annually	EM	\$35,000
Review asset life expectancy	Test pipes and manholes for deterioration	June 2025 and triennially thereafter	EM & Ops staff	\$10,000
Conduct asset revaluations	Up to date	June 2025 and annually thereafter	GMFCS	\$5,000

EM = Engineering Manager

3WE = Three Waters Engineer

GMOS = Group Manager Operations and Services

GMFCS = Group Manager Finance and Corporate Services

Monitoring and Review Procedures

The Leadership Team will monitor and review improvement items on a six monthly basis. This plan will be reviewed annually as part of annual plan development.



SECTION TEN
Appendices



APPENDIX A - DETAILED ASSET DESCRIPTION

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Reservoirs and Booster Pumps				
BOOSTER STATION (BEATTIE ROAD)	GRUNDFOS SP160-2 BOOSTER PUMP	MECHANICAL	1	2025
BOOSTER STATION (BEATTIE ROAD)	GRUNDFOS SP160-2 BOOSTER PUMP	MECHANICAL	1	2002
BOOSTER STATION (BEATTIE ROAD)	CONTROL	ELECTRICAL	1	2025
BOOSTER STATION (BEATTIE ROAD)	CONTROL CABINET	STEEL	1	2017
BOOSTER STATION (BEATTIE ROAD)	STRUCTURE	CONCRETE	1	2000
VALVES & FITTINGS	150MM REFLUX VALVES & PRESS. GAUGES	METER	4	1968
VALVES & FITTINGS	KENT 375MM DALL TUBE	METER	1	2025
VALVES & FITTINGS	250MM LEEDS METER	METER	1	2025
CONTROL	CABLING	ELECTRICAL	1	2025
BRIDGE	PIPE BRIDGE 60m	STEEL	1	2018
CONTROL	TELEMETRY	ELECTRICAL	1	2017
CONTROL	WATER LEVEL PROBES	ELECTRICAL	3	2025
CONTROL	WATER LEVEL ALARM	ELECTRICAL	1	2017
VALVES & FITTINGS	450MM ANNUBAR (PROP)	MECHANICAL	1	2017
VALVES & FITTINGS	300MM ANNUBAR (PROP)	MECHANICAL	1	2017
TRUNK MAIN - GRAVITY	450	ASBESTOS CEMENT	3,200	1968
TRUNK RISING MAIN - Backup	375	ASBESTOS CEMENT	1,220	1968
TRUNK MAIN - GRAVITY	300	ASBESTOS CEMENT	361	1968
TRUNK MAIN	250	ASBESTOS CEMENT	390	1968
TRUNK MAIN	150	ASBESTOS CEMENT	80	1968
TRUNK GRAVITY/RISING MAIN (225mm)	225	ASBESTOS CEMENT	1,670	1971
TRUNK RISING MAIN	225	PE100	1,220	2021
TRUNK MAIN - GRAVITY	300	PE100	361	2024
VALVES & FITTINGS	450MM SLUICE VALVES	VALVE	2	2021
VALVES & FITTINGS	375MM SLUICE VALVES	VALVE	2	1968
VALVES & FITTINGS	375MM SLUICE VALVES	VALVE	2	2024
VALVES & FITTINGS	375MM REFLUX VALVES	VALVE	1	2024
VALVES & FITTINGS	300MM SLUICE VALVES	VALVE	5	1968
VALVES & FITTINGS	300MM SLUICE VALVES	VALVE	5	2024
VALVES & FITTINGS	200-225MM SLUICE VALVES	VALVE	10	1968
VALVES & FITTINGS	150MM SLUICE VALVES	VALVE	12	1968
VALVES & FITTINGS	150MM REFLUX VALVES	VALVE	3	1968
VALVES & FITTINGS	100MM SLUICE VALVES	VALVE	9	1968
VALVES & FITTINGS	AIR VALVES (GRAVITY FEED MAIN)	VALVE	4	1968
VALVES & FITTINGS	100MM BACK PRESSURE RELIEF VALVE	VALVE	1	2021
VALVES & FITTINGS	300MM SINGER ALTITUDE VALVE	VALVE	1	1968
RESERVOIR	2,250,000 Litre	REINFORCED CONCRETE	1	1955
TRUNK MAIN (100mm)	100	ASBESTOS CEMENT	80	1966
RESERVOIR	4,500,000 Litre	REINFORCED CONCRETE	1	1978

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
RESERVOIR	4,500,000 Litre	REINFORCED CONCRETE	1	1983
BULK METERS AT RESERVOIR	BULK METER	BULK METER	2	2011
BULK METERS AT RESERVOIR	BULK METER	BULK METER	1	2024

ASSET	DESCRIPTION	MATERIAL	QTY (Metres)	YEAR
Pipes (mm)				
WATER (ALL ZONES)	<50mm	F-STEEL	297.8	1957-2007
WATER (ALL ZONES)	<50mm	AC	392.9	1957-2007
WATER (ALL ZONES)	<50mm	PVC	363.2	2003-20
WATER (ALL ZONES)	<50mm	PE100	1,270.0	2021-25
WATER (ALL ZONES)	50mm	F-STEEL	9,631.0	1957-2007
WATER (ALL ZONES)	50mm	AC	617.6	1957-2007
WATER (ALL ZONES)	50mm	PVC	3,091.9	2003-20
WATER (ALL ZONES)	50mm	PE100	6,820.9	2021-25
WATER (ALL ZONES)	100mm	F-STEEL	1,054.8	1957-2007
WATER (ALL ZONES)	100mm	AC	7,931.5	1957-2007
WATER (ALL ZONES)	100mm	PVC	6,022.6	2003-20
WATER (ALL ZONES)	100mm	PE100	11,026.3	2021-25
WATER (ALL ZONES)	150mm	F-STEEL	2168.2	1957-2007
WATER (ALL ZONES)	150mm	AC	3,954.0	1957-2007
WATER (ALL ZONES)	150mm	PVC	2,340.3	2003-20
WATER (ALL ZONES)	150mm	PE100	5,424.9	2021-25
WATER (ALL ZONES)	200mm	F-STEEL	110.2	1957-2007
WATER (ALL ZONES)	200mm	AC	1,319.5	1957-2007
WATER (ALL ZONES)	200mm	PVC	679.7	2003-20
WATER (ALL ZONES)	200mm	PE100	0	2021-25
WATER (ALL ZONES)	225mm	F-STEEL	191.2	1957-2007
WATER (ALL ZONES)	225mm	AC	4,773.1	1957-2007
WATER (ALL ZONES)	225mm	PVC	384.7	2003-20
WATER (ALL ZONES)	225mm	PE100	2,290.7	2021-25
WATER (ALL ZONES)	>225mm	F-STEEL	98.3	1957-2007
WATER (ALL ZONES)	>225mm	AC	772.6	1957-2007
WATER (ALL ZONES)	>225mm	PVC	0	2003-20
WATER (ALL ZONES)	>225mm	PE100	283.2	2021-25

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Valves				
VALVES - DISTRICT WIDE	25mm Cast	CAST IRON	18	1957-2023
VALVES - DISTRICT WIDE	37mm Cast	CAST IRON	10	1957-2023
VALVES - DISTRICT WIDE	50mm Cast	CAST IRON	291	1957-2023
VALVES - DISTRICT WIDE	100mm Cast	CAST IRON	194	1957-2023
VALVES - DISTRICT WIDE	150mm Cast	CAST IRON	88	1957-2023
VALVES - DISTRICT WIDE	225mm Cast	CAST IRON	35	1957-2023
VALVES - DISTRICT WIDE	450mm Cast	CAST IRON	2	1968
VALVES - DISTRICT WIDE	100mm Brass	BRASS	13	2020
VALVES - DISTRICT WIDE	100mm PE	PE	3	2020
VALVE – TARAWERA BORES	Modulating Valve	CAST IRON	1	2024
SAMPLING & METER BOX - DISTRICT		CAST IRON	1	2024
RISER MAIN VALVES	150mm Cast	CAST IRON	2	2020
RISER MAIN VALVES	225mm Cast	CAST IRON	9	2020
RISER MAIN VALVES	300mm Cast	CAST IRON	6	2020
RISER MAIN VALVES	500mm Cast	CAST IRON	3	2020
LATERALS (incl. TALBOT, TOBY, PIPE)	100mm – Zone 2 & 3	PE	556	2024
LATERALS (incl. TALBOT, TOBY, PIPE)	100mm – Zone 1	PE	148	2022
LATERALS (incl. TALBOT, TOBY, PIPE)	100mm – Bell St	PE	109	2020
LATERALS (incl. TALBOT, TOBY, PIPE)	100mm – Zone 0	PE	386	2010
LATERALS (incl. TALBOT, TOBY, PIPE)	100mm – River Road	PE	308	2023
LATERALS (incl. TALBOT, TOBY, PIPE)	100mm - Districtwide	Steel/Copper/Brass	1551	1977
FIRE HYDRANT – Piripiri/Tiwhatiwha		CAST IRON	5	2020
FIRE HYDRANT – River Road		CAST IRON	33	2023
FIRE HYDRANT – Zone 00		CAST IRON	22	2010
FIRE HYDRANT – Bell St		CAST IRON	21	2021
FIRE HYDRANT - Zone 1		CAST IRON	21	2022
FIRE HYDRANT – Zone 2 & 3		CAST IRON	38	2023
FIRE HYDRANT – Zone 4		CAST IRON	23	1985
FIRE HYDRANT – Zone 5		CAST IRON	24	1963
FIRE HYDRANT – Zone 6		CAST IRON	23	1957-2006
FIRE HYDRANT – Zone 7		CAST IRON	36	1973
FIRE HYDRANT – Zone 8		CAST IRON	34	1978
Headworks				
PUMPHOUSE#1	PUMP CONTROLS	ELECTRICAL	1	2025
HOLLAND SPRINGS	COLLECTION BOX 25x 5x 9M	TIMBER	1	1965
HOLLAND SPRINGS	COLLECTION BOX 25x 5x 9M	TIMBER	1	2021
HOLLAND SPRINGS	FLOW RESTRICTOR	MECHANICAL	1	2022
HOLLAND SPRINGS	FLOW RESTRICTOR/WEIR/METER	MECHANICAL	1	2024
HOLLAND SPRINGS	SECURITY FENCING	TIMBER	60	2000
PUMPHOUSE#1	SECURITY FENCING	POST/WIRE FENCE	60	2010
PUMPHOUSE#1	GARAGE DOOR	COLOUR STEEL	1	2021

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
WATER TREATMENT (PUMP HOUSE #1)	CONTROL	ELECTRICAL	1	2024
WATER TREATMENT (PUMP HOUSE #1)	Potable water system	MECHANICAL	2	2014
WATER TREATMENT (PUMP HOUSE #1)	WATER & CHEMICAL ANALYSER	MECHANICAL	1	2023
PUMPHOUSE #1	PUMP #1 AND MOTOR HARLAND 125HP	MECHANICAL	1	2021
PUMPHOUSE #1	PUMP #2 AND MOTOR HARLAND 125HP	MECHANICAL	1	2021
PUMPHOUSE #1	PUMP #3 AND MOTOR HARLAND 125HP	MECHANICAL	1	2021
PUMPHOUSE #1	PUMP #4AND MOTOR HARLAND 125HP	MECHANICAL	1	2021
PUMPHOUSE #1	AUTO STOP/START LEVEL CONTROLS	ELECTRICAL	1	1998
PUMPHOUSE #1	CABLING	ELECTRICAL	1	2024
TARAWERA PARK BORE SITE	PLEUGER Q82-2+V6-64 (33,000 G/HR)	MECHANICAL	1	2017
TARAWERA PARK BORE SITE	PLEUGER Q82-2+V6-64 (33,000 G/HR)	MECHANICAL	1	2018
TARAWERA PARK BORE SITE	PLEUGER Q82-2+V6-64 (33,000 G/HR)	MECHANICAL	1	2018
TARAWERA PARK BORE SITE	FLOW AND PRESSURE MEASUREMENT	MECHANICAL	1	2021
TARAWERA PARK BORE SITE	CONTROL EQUIPMENT	ELECTRICAL	1	2021
TARAWERA PARK BORE SITE	TELEMETRY	ELECTRICAL	1	2023
TARAWERA PARK BORE SITE	24V UPS	ELECTRICAL	1	2021
TARAWERA PARK BORE SITE	BORE 1 7M X 150MM	WELL	1	2021
TARAWERA PARK BORE SITE	BORE 2 7M X 150MM	WELL	1	2021
TARAWERA PARK BORE SITE	BORE 3 10M X 150MM	WELL	1	2021
TARAWERA PARK BORE SITE	Reline existing bore & value - Nil additional asset	WELL	1	2023
TARAWERA PARK BORE SITE	BORE SHUTOFF VALVE	VALVE	1	2021
HOLLAND SPRINGS	WEIRS	REINFORCED CONCRETE	3	2024
PUMPHOUSE #1	WETWELL INTAKE MANIFOLD	REINFORCED CONCRETE	1	1968
PUMPHOUSE #1	WETWELL	REINFORCED CONCRETE	1	1968
PUMPHOUSE #1	COLLECTION CHAMBER 5M X 3M X .9M	REINFORCED CONCRETE	1	1968
PUMPHOUSE #1	WEIR	REINFORCED CONCRETE	1	1968
TARAWERA PARK BORE SITE	CONTROL SHED	CONC BLOCK	5	2017
WATER TREATMENT (PUMP HOUSE #1)	SEALED YARD	PAVEMENT	1	1997
PUMPHOUSE #1	UV PLANT CONTROLS	ELECTRICAL	1	2017
PUMPHOUSE #1	UV PLANT CONTROLS - 2020	ELECTRICAL	1	2020
PUMPHOUSE #1	UV PLANT CONTROLS - 2021	ELECTRICAL	1	2021
PUMPHOUSE #1	UV PLANT	MECHANICAL	1	2002
PUMPHOUSE #1	UV Plant - 2022	MECHANICAL	1	2022
PUMPHOUSE #1	UV Plant - 2024	MECHANICAL	1	2024
PUMPHOUSE #1	UV PLANT PIPEWORK	GALVANISED IRON	1	2002
WATER TREATMENT (PUMP HOUSE #1)	CHLORINE DOSING PLANT	MECHANICAL	1	2018
WATER TREATMENT (PUMP HOUSE #1)	CHLORINE DOSING - PUMP (SPARE)	MECHANICAL	1	2023

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
WATER TREATMENT (PUMP HOUSE #1)	CAUSTIC SODA DOSING SYSTEM	MECHANICAL	1	2024
WATER TREATMENT (PUMP HOUSE #1)	FLUORIDE & LIME DOSING PLANT	MECHANICAL	1	2024

APPENDIX B - WATER AND SANITARY ASSESSMENT

1 Risks to the Community relating to the absence of a water supply

All, but two houses (on farm block) and all businesses within the Kawerau District are connected to Council's water supply network.

2 Quality and adequacy of supply of drinking water available within the District

The principal issue affecting the supply of potable water is the biological cleanliness of the water.

The supply is not considered a "secure" supply as defined by the Drinking-Water Standards for New Zealand 2005 (DWSNZ 2005), due to historical detection of faecal coliforms in the source water and the inability to prove that the water has been underground for more than 12 months or is not directly affected by surface or climate influences in the environment. Contaminations, when detected, are treated with chlorine.

The reticulation is split into two pressure zones and is supplied through a network of pipes after being pumped to the three reservoirs. There is a strict treatment regime in place. The supply (source and reticulation) is monitored for microbiological and chemical indicators.

3 Current and estimated future demands for water services and issues relating to the quality and adequacy of supply of drinking water

Kawerau District has, and is expected to continue, to experience low growth in demand for additional water supply services. There are a number of vacant residential sections in the town. Even if these sections were occupied, the existing water supply network would cope with the additional demand. The boundary between Whakatane and Kawerau districts was adjusted in 2012 to create a new industrial park on SH34 opposite the existing mill site. Some industrial development has occurred there, and it is hoped more will occur.

Growth is monitored on an ongoing basis to determine any impending additional demand on water supply services.

4 Options available to meet the current and future demands and suitability for Kawerau

Capacity

Current growth predictions mean that there are no proposed new water pipes in the Long Term Plan. Any subdivision will be required to install appropriate water systems before they are handed over to Council. The Council's renewal programme for water infrastructure assets as outlined in Council's Long Term Plan will meet current and future demands.

Quality

The treatment plant meets the standards of DWSNZ 2008, provided that all monitoring requirements are met. The critical aspects of water supply treatment are:

- Ensuring that water supply operation staff have appropriate training and qualifications.
- Undertaking an appropriate P2 chemical monitoring programme.
- Removing all ball type hydrants.
- Instituting leak detection surveys.

5 Council's intended role in meeting the current and future demands

Council considers that the treatment and testing meets the DWSNZ 2005 standards.

With minimal population and demand growth expected, water demand requirements in the next ten years can be met with current capacity.

6 Council's proposals for meeting the current and future demands, including proposals for any new or replacement infrastructure.

Council has an asset replacement fund available for replacement of assets that fail in the future. The population growth figures indicate that significant new assets are unlikely to be required. Small new assets are funded from the depreciation reserves

KAWERAU DISTRICT COUNCIL
Asset Management Plan 2025



Wastewater

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Version History

Version	Date	Notes	Author
2015	2015	Final version: AMP - 2015	Tom McDowall
1a	09/02/2018	First revision for 2018	Hanno vd Merwe
1b	15/02/2018	Review: Technical support officer	Tina Mitchell
1c	23/02/2018	Update after MOS review	Hanno vd Merwe
1d	20/02/2018	External review	Kelvin Hill (Western Bay DC)
2	30/02/2018	Submission to Council	Hanno vd Merwe
2a	23/11/2020	First Revision for 2020	Tina Mitchell
2b	8/04/2021	Three Waters Review	Riaan Nel
2c	12/04/2021	Management Review	Hanno vd Merwe
2d	20/07/2021	Post Audit Review amendments	Tina Mitchell
3	1/08/2021	Submission to Council	Hanno vd Merwe
3a	7/05/2024	First Revision for 2024	Hanno vd Merwe
4	18/03/2025	Revision following audit review	Peter Christophers
4a	26/03/2025	GMOS review of AMP	Riaan Nell
4b	7/4/2025	A & R Committee review	



SECTION ONE

Executive Summary



PURPOSE OF THE PLAN

The overall purpose of this Asset Management Plan is to describe Council’s strategy for the management of its wastewater assets. The Plan enables Council to meet the present and expected future needs of the Community over a ten year period (according to the 10 year Long Term Plan) and into the future (according to the 30 year Infrastructure Strategy).

The Plan details the assets Council owns and describes how the maintenance, renewal and replacement of these assets will be managed and funded to meet required levels of service for Council’s wastewater activity in the most cost effective way for households and businesses.

The Asset Management Plan collates high level management, financial, engineering and technical information from various sources into a single document. It is a tool for communicating complex asset management information and strategies with stakeholders and interested parties.

An independent auditor evaluated the level of provision of asset management for the wastewater asset in 2017. The appropriate level was recommended to be raised from the Council’s asset management policy of “Core” to “Intermediate” due to the higher risk to the health and well-being of the community in the event of wastewater assets failing to deliver an appropriate level of service.

The previous assessment of the asset management level and the level required for “Intermediate” showed a gap of 10 percent overall for the wastewater activity. Asset management improvements were identified in 2021 and completed by 2024 to close this gap. The remaining and newly identified improvement actions are discussed in Section 0.

ASSET DESCRIPTION

The community is served by a wastewater system designed to manage wastewater collection, treatment and disposal. It has one reticulated wastewater network, servicing around 2,880 properties including approximately 180 businesses. Four large industrial plants use the network to dispose of domestic waste. One business, the Waiū dairy factory is consented and charged for the disposal of trade waste via the wastewater system since June 2019.

Properties connect to the public reticulation system through small pipes. Larger pipes and manholes are used in the network where changes in gradient and direction occur. There are also six pump stations. All wastewater is brought to the treatment plant. Treatment and the discharge of water to ground are carried out in accordance with resource consent requirements and to maintain a healthy environment. Septic tanks are used for the few

properties in the district not connected to the network.

The table below summarises the key components of the system including additional infrastructure following the residential developments of Porritt Glade and Central Cove.

Key components

Number of properties connected – including laterals	2880
Length of reticulation (kms)	62.6
Number of pumping stations	6
Number of treatment plants	1
Manholes	772
Wastewater treated (avg m ³ /d)	2,200

The 2022 replacement cost and depreciated replacement values of the wastewater asset are shown below:

Replacement and depreciated values

Asset Type	Gross Replacement	Depreciated Replacement Cost
Pipelines	\$22,882,400	\$6,188,090
Laterals	\$881,500	\$392,300
Manholes	\$3,410,640	\$785,570
Pumping Stations	\$567,970	\$424,720
Screening	\$2,679,100	\$1,914,880
Treatment Plant	\$7,070,790	\$4,059,700
TOTAL	\$37,492,400	\$13,765,260

LEVELS OF SERVICE

Customer levels of service

Council monitors and reports its actual performance against measures and targets contained in the Long Term Plan.

Council targets includes community satisfaction, number of complaints, the number of service requests and time taken to respond as well as number of supply disruptions and failures. The community survey undertaken in 2023 reported 82% resident satisfaction with the wastewater service, which is above the national average (74%).

Technical levels of service

Council seeks to maintain and operate a wastewater system in a manner that is fit for purpose and does not compromise public safety. It also seeks to comply with its wastewater resource consents at all the times.

Constraints to levels of service

Constraints can arise because of capacity, reliability and security of service, environmental performance and issues relating to the treatment, storage and reticulation. These constraints are described fully in section 0 of the Plan.

Resource consents

Council holds resource consents from the BOP Regional Council for the discharge of treated wastewater from the treatment plant and the breakdown of wastewater solids. Consent conditions relate to the volume, quality and rate of wastewater discharge and its effects on groundwater quality.

Significant adverse effects

Potential adverse effects are: the overflow of sewage due to pipe blockages and failure of the treatment plant - exceeding one day. This would have environmental and potential health effects for the community (i.e. impact the environmental and social wellbeings).

FUTURE NEEDS

Kawerau's wastewater network is adequate for current demands and most of the network has some spare capacity.

The Kawerau district has experienced low general population growth and therefore low demand for additional services, however the district has continued to experience a consistent increase in residents over the age of 65. In the 2013 census, the total population of the Kawerau District was 6,363, a decrease of 8.1% or 561 people since the 2006 census. Despite a predicted further decline, the 2018 census showed a growth of general population to 7,460. The Kawerau district estimated population according to the 2023 census is 7,820 which represented a 4.8% increase in population since 2018 or around 1% population growth per annum.

Council hopes to bolster these gains with economic development initiatives, such as the development of a new industrial park and promotion of the natural environment.

The existing wastewater network has excess capacity enabling it to cope with any reasonable increase in demand. A boundary adjustment was carried out in 2012 with the subsequent initial development of the new industrial park. Council constructed a new wastewater service line to the new industrial park on SH34 in response to this and the new Waiū dairy factory came online with a consent to dispose of trade waste in June 2019.

LIFE CYCLE MANAGEMENT

Assets

Service connections

Service connections connect properties and businesses wastewater lines to gravity reticulation pipes. Service connections may be Asbestos Cement (AC), glazed earthenware, Polyvinyl Chloride/Plastic (PVC), Polyethylene (PE), concrete lined steel or concrete, depending on when a property was developed.

Gravity reticulation pipes

Gravity lines connect service connections and properties and businesses wastewater lines to pump stations and eventually to the treatment plant. Depending on location and age, the pipes are asbestos cement, concrete, concrete lined steel, PVC, PE or glazed earthenware.

Rising pipes

Rising pipes are pressurised pipes that connect pumping stations (both Council and private) to receiving gravity reticulation pipes.

Pump stations

There are six pump stations, two pumps effluent from Council facilities, one pumps trade waste from the industrial block, two pump wastewater from low lying housing areas and one pumps wastewater from an out of district marae and attached dwelling.

Treatment plant

There is a single modern plant that removes solids from the wastewater. The solids are disposed of by vermiculture and the effluent is discharged to rapid infiltration basins.

Manholes

Manholes are used at changes in pipeline gradient, direction, and diameter or at multiple service connections.

Critical Assets

Most components of the wastewater asset are able to fail for a period of up to 24 hours before intervention is required. Intervention is simple and relatively inexpensive and therefore only a small number of pipes, one pump station and the treatment plant are considered critical.

New assets

The two resource consents for the wastewater treatment plant extend beyond the length of this plan so there is no requirement to improve its efficiency during the life of the plan. The proposed new industrial park is not expected to increase flows by more than five percent.

New network assets from recent land developments are vested in Council.

Maintenance activities

Beyond the geothermal area of town that requires renewal work, the wastewater network is in good condition. Council intends to operate, maintain and renew the network so that it continues to provide the level of service required in the future. Regular, ongoing maintenance including the removal of problematic street trees will allow the existing levels of service to continue indefinitely.

Renewal/Replacement

Pipes generally deteriorate in line with the National Asset Management Steering Group (NAMS) guidelines with the exception of an area of geothermal activity that includes Kawerau's town centre.

Council's objective is to maximise asset life without compromising service. Replacement decisions are based on the condition, reliability and maintenance cost and risk profile of an asset as well as its age.

The network has been divided into six zones: the first 5 zones are based on the estimated average date of development. The sixth zone is the geothermal area where concrete pipe has been replaced and relined with PE pipe.

The zones are:

1. 1955-1958 (~25,000 m)
2. 1962-1970 (~8,800 m)
3. 1973 (~9 600 m)
4. 1978 (~7 100 m)
5. 1980-1996 (~6 600 m)
6. 2000 to present (~2,900 m)

Deferred Maintenance and Disposal Plan

Council policy is to avoid any deferred maintenance and currently there is no known deferred maintenance for the wastewater network. Similarly, there are no specific disposals identified in the Plan.

FINANCIAL SUMMARY

Kawerau's wastewater asset is adequate for the current and foreseen population and industrial needs.

The funding for wastewater operation and replacement is from rates. The funding collected in excess of the actual replacement is being held in the depreciation reserve. At some stage of the replacement cycle the depreciation reserve will go into deficit and Council will raise loans to fund this deficit.

The model for replacement of wastewater pipes is reasonably accurate as the pipes lives have been verified by physical testing and pipe failures has also confirmed the deterioration rates.

ASSET MANAGEMENT SYSTEMS AND PROCESSES

Asset management outcomes

Responsibility for asset management outcomes lies with the Group Manager, Operations and Services.

Accounting and asset management systems

Ozone software is used for accounting and billing. All formal asset management financial reporting including valuation is currently held in Excel spreadsheets. This is being migrated to the AssetFinda system.

The improvement plan proposes that all appropriate financial information be inputted into AssetFinda.

Hard copy plans contain layout details of the structures and all known pipes comprising the wastewater network. Over time these will become obsolete as new information is held on AssetFinda.

Key information flows and processes

Key information flows and process linkages relate to the incorporation of Kawerau's community outcomes, the preparation and adherence to Council's annual budgets, environmental monitoring and compliance and to ongoing asset management that maintains levels of service to the community.

MONITORING AND IMPROVEMENT PLANNING

Planned improvements are outlined in section 0 of the Plan. Key improvement activities centre on continuing to increase the accuracy of Council's information relating to the wastewater assets.

The Group Manager Operations and Services will monitor and review improvement items on a six monthly basis. The improvement plan will be reviewed each year as part of the annual plan development process.



SECTION TWO

Introduction



PURPOSE OF THE PLAN

The overall purpose of this Asset Management Plan is to describe Council's strategy for the management of its wastewater assets. The Plan enables Council to meet the present and expected future needs of the community over a ten year period (according to the 10 year Long Term Plan) and into the future (according to the 30 year Infrastructure Strategy).

The plan details the assets Council owns and describes how the maintenance, renewal and replacement of these assets will be managed and funded to meet required levels of service for Council's wastewater activity in the most cost effective way.

The asset management plan collates high level management, financial, engineering and technical information from various sources and combines these into a single document. It is a tool for communicating complex asset management information and strategies with stakeholders and interested parties.

ASSET DESCRIPTION

Council's wastewater system collects, treats and dispose of wastewater (sewage) from properties in the district. Its components are a network of underground pipes, pumping stations and a treatment plant with soakage basins. Wastewater enters the network from properties connected to the system and is conveyed to the treatment plant where it is treated and then disposed of via rapid infiltration basins and by vermicomposting.

The wastewater network, serves around 2,880 properties including 180 businesses. Four large industrial plants use the network to dispose of domestic wastewater, and one factory has a trade waste consent.

Properties are connected to the public reticulation system through small pipes called service connections. These pipes are generally the responsibility of the property owner. Where a portion of connection passes outside the property boundary to connect to the wastewater network is deemed to belong to Council.

The wastewater network includes 150 – 450mm pipes and manholes where changes in gradient and direction occur. There are pump stations to lift effluent from low lying areas to the gravity network.

All wastewater is brought to the treatment plant. Here the solids are removed and the liquid soaks to ground in rapid infiltration basins where the soil removes bacteria. The discharge of water to ground and the treatment of the removed solids are carried out to meet resource consent requirements and maintain a healthy environment.

Council measures the total solids content and the quantity of the treated water going to the rapid infiltration basins. This information is provided to the BOP Regional Council as required in the resource consents.

The key components of the Kawerau wastewater system are listed in the following table:

Table 37: Key components

Number of properties connected	2880
Length of reticulation (kms)	62.6
Number of pumping stations	6
Number of treatment plants	1
Manholes	772
Wastewater treated (avg m ³ /d)	2,200

Septic tanks are used for the few houses in the district not connected to the network.

OBJECTIVES OF ASSET OWNERSHIP

The goal of the wastewater activity is to provide a quality wastewater removal, treatment and disposal service to meet reasonable community needs that enhances community health and safety and the environment.

Council is obligated by the Health Act 1956 and the Building Act 2004 and is supported by the powers given to local authorities in the Local Government Act 2002 (LGA) and other legislation to provide wastewater services.

Section 23 of the Health Act 1956 imposes a general duty on Councils to improve, promote, and protect public health within their District. In particular Section 23(c) imposes a duty on Councils to cause all proper steps to be taken to secure the abatement of the nuisance or the removal of the condition. It would be virtually impossible for Council to fulfil this obligation without reticulated wastewater in the urban area.

The activity involves:

- Management and monitoring of wastewater assets and wastewater disposal.
- Repairing or replacing unsound pipes and other wastewater structures and plant.
- Operating the wastewater treatment plant.
- Planning for future requirements and improving operations.

Council's principal objectives are:

- To ensure that the wastewater network continues to provide a high quality collection, treatment and disposal service.
- To anticipate the time when it becomes necessary to extend, upgrade or renew the

existing wastewater network, and to plan accordingly.

To ensure the appropriate maintenance of the wastewater network in perpetuity, so that there is no diminution in value and to forecast the estimated future cost of doing so.

To put in place a sound management regime for all matters relating to the wastewater network.

CONTRIBUTION TO COMMUNITY OUTCOMES

The Council community outcomes to which the wastewater activity primarily contributes are set out in

Table 38 below.

LINKS TO OTHER STRATEGIC DOCUMENTS

Public infrastructure contributes toward the economic, social, cultural and environmental wellbeing of the community. In addition to wastewater infrastructure, Council owns the water supply and stormwater systems, the district's roads and footpaths, and its public parks, reserves, buildings and facilities. The parts making up those

networks and structures and the tools and equipment used to manage and maintain them, are Council's assets.

The 30 year planning strategy for Council's four critical asset groups, Roading, Stormwater, Water Supply and Wastewater, is described in the Infrastructure Strategy.

Every three years Council develops a Long Term Plan setting out the range and level of services it will provide to meet identified community needs and community outcomes and indicates anticipated expenditure on assets for the next 10 years. Each year Council adopts an Annual Plan, containing the budget for council services. Council's ability to deliver services and to do so at a reasonable cost depends on the condition, performance and risk profile of its assets.

In this way, Council's asset management planning is closely linked to its Infrastructure Strategy, Long Term Plan and Annual Plans

This Asset Management Plan was developed in conjunction with the Kawerau District Council Long Term Plan 2025-2034. It will underpin and be integrated into that document, and the subsequent Annual Plans.

Table 38: Contribution to Community Outcomes

Contribution	Outcome
Continuity of sewage collection.	Council infrastructure and services are accessible, age-friendly, effective, efficient and affordable, now and for the future.
Management and monitoring of sewage disposal.	Council regulates, monitors and acts to protect public health and safety, to prevent harm and nuisance and to improve standards in Kawerau's home, commercial and public environments.



SECTION THREE

Levels of Service



CUSTOMER LEVELS OF SERVICE

Council commissions an independent survey every 3 years to measure the level of customer satisfaction with the services provided by Council. The results of these surveys for the wastewater activity are shown below.

The survey for 2023 was undertaken by SIL Research and for the years prior it was undertaken by the National Research Bureau.

Table 39: Survey Results – Wastewater Supply

%	2008	2009	2011	2014	2017	2020	2023
Very/Fairly Satisfied	96	99	96	97	91	95	70
Not very Satisfied	1	-	-	2	2	2	15
Don't Know	3	1	4	1	6	3	15

Table 40: Survey Results – Reasons Residents were not very satisfied

	2008	2009	2011	2014	2017	2020	2023
Odour				1	1		2
Blocked sewer lines				1			4
Poor toilet flushing		1			1		
Sewage overflow			1	1			
Overall system							7
Communication/Other						2	2

TECHNICAL LEVELS OF SERVICE

Council will continue to monitor and report its actual performance against measures and targets described in the LTP. Performance progress (towards achieving targets) is reported quarterly to Council by the Group Manager, Operations and Services.

Table 6: Technical Levels of Service (LOS)

Level of Service	Performance Measure
Provision of a reliable domestic wastewater collection and disposal service	Continuity of service 365 days a year No more than 50 disruptions of service per year >97% Community satisfaction (measured 3 yearly) Zero allowance for Dry Weather Overflows
The total number of complaints received	Complaints per 1000 connections for each criteria <ul style="list-style-type: none"> • Odour – No more than 1 • System Faults – No more than 15 • Blockages – No more than 15 • Council's response – Nil allowable
Wastewater treatment plant operation	Maintain compliance with resource consents conditions
Callout and fault response times	Sewage overflow report call outs: 1 hr attendance with 8 hrs resolution
Minimal environmental effects	Maintain compliance with resource consents conditions

CONSTRAINTS TO LEVELS OF SERVICE

The constraints impacting on levels of service of the wastewater network are shown in the table below.

Table 7: Constraints to Levels of Service

Constraint	Component	Comments
Capacity	Service Connections	There are no known constraints of capacity associated with wastewater network connections.
	Public Networks	There are no known constraints of capacity with the current network of pipes. Fat build ups and tree roots temporarily reduce capacity from time to time. Rain inflow and infiltration occurs during heavy rainfall. Investigation into where this is happening is undertaken and appropriate action instigated.
	Treatment Plant	The treatment plant has capacity to cater for a population 30% higher than current.
	Consents	The consents limit the level of treated liquid that can be disposed of to the Rapid Infiltration Basins (RIBs). The consent allows for twice the current disposal.
Reliability and Security of Service	Network blockages	Limited storage capacity is available in line. However, most storage capacity is used by the time the blockage is detected. Unused storage capacity may provide sufficient time to undertake repair or arrange pumping without significant spillage. Clearance of most blockages is attended to quickly.
	Pump Stations	The pump stations each have at least two pumps. This provides standby pumping capacity if one pump fails or requires repair. In addition, pump stations are able to be pumped out using portable pumps or sucker trucks.
	Treatment Plant	The critical mechanical and electrical pumps, fans and gearboxes are duplicated so that plant can be run at slightly below maximum performance for long periods. A stock of critical replacement parts is held on site and Kawerau is well serviced with industrial technicians. A spill basin has the capacity to hold several days of wastewater in the event of a significant plant failure. A diesel generator is on site in the event of a significant power outage.
Environmental Considerations	Consent	Obtaining ongoing resource consents could impact on disposal options. However, disposal techniques used; are current recommended practises therefore renewing resource consents is not anticipated to be a problem.
	Environmental Performance	The treatment system is robust and with the available storage capacity, breaches of the consent should only occur due to exceptional circumstances.
Extension	Other capabilities	The system has reserve capacity so additional connection to any part of the reticulation can be undertaken. When lower lying areas are developed, additional pumping stations will be required.

RESOURCE CONSENTS

Council's current resource consents are shown in the table below.

Table 8: Resource Consents

Consent No.	Source	Purpose	Conditions	Expiry Date
65081	Wastewater Treatment Plant – Discharges	Control discharge of treated wastewater from treatment plant	Quality Quantity	31-10-2032
67265	Disposal of Septage Waste	Control the process of treating septage waste	Control odour No runoff No adverse effects on environment	31-10-2032

SIGNIFICANT ADVERSE EFFECTS

Council is unaware of any significant adverse effects that the wastewater activity has on the social, economic, environmental or cultural well-being of the community. Based on groundwater test results taken from around the soakage site in accordance with consent conditions, current practices do not appear to be impacting on the natural underground water quality.

A potential negative effect of the Wastewater activity is the overflow of sewage due to pipe blockages. This would have environmental and potential health effects (i.e. environmental and

social wellbeings).The adverse impact of blockages is minimised by very prompt attendance to blockages to reduce the instances and quantity of spillage, and subsequent disinfection of any contaminated area.

Potentially significant adverse effects would also occur if the treatment plant failed to operate for a period in excess of one day. This would negatively affect the community's health and the environment (social and environmental wellbeings).



SECTION FOUR
Risk Management



RISKS

Physical Risks

Physical risks are generally:

- As a result of the inevitable natural process of deterioration.
- Because of actions of other parties working or travelling in the vicinity of the assets.
- Because of natural disasters (most commonly earthquakes or flooding).

Durable materials, good workmanship, and careful planning will not always be sufficient to prevent physical damage by persons or natural disasters.

Volcanic eruption may produce ash. The ash will not affect the pipe network but may impact on the Rapid infiltration Basin soakage rates.

The Edgecumbe earthquake in 1987 caused no known damage to the wastewater network. This indicates that the current system has low risk from the more common natural disasters.

Financial Risks

Financial risks are those that result in decreased cash flow and/or inability to afford the works that are required.

They include loss of a major ratepayer (requiring the cost burden to be absorbed by the remaining ratepayers), failure to take advantage of any available subsidies and replacing assets before end of useful life, resulting in less than optimal life-cycle cost.

Depreciation for wastewater assets is being funded, therefore a depreciation reserve is available when renewals are required. Also loan(s) is available when the reserve funds are fully expended.

Health and Safety Risk

Health and safety risks arise as a result of physical actions or omissions of Council staff, contractors, or equipment failure. Health and safety risks are minimised by training staff and employing reputable contractors (SHE qualified) for maintenance and renewals.

Environmental Risk

There are environmental risks consequential to the operation of the wastewater network and/or physical actions or omissions of council staff or contractors. These risks are managed through compliance with resource consent conditions.

Regulatory Risk

The right of the BOP Regional Council to amend/update consent conditions during the term of consent represents a regulatory risk to Council. However, changes would normally only occur as a response to failure to meet existing consent conditions.

Any changes to consent conditions would usually be modified treatment practices, that could have capital and operational cost consequences. BOPRC would conduct significant dialogue with Council prior to actually amending conditions and there would normally be a timeframe within which to implement changes.

The special rights and status of Tangata Whenua in the resource consent process also represents a risk to Council. Council believes it can minimise this risk by maintaining an open and cordial relationship with local Iwi.

There is also a risk of prosecution if Council fails to comply with legislation.

RISK MITIGATION

Council actions taken to mitigate risks are set out in the table on the next page.

Insurance

Council has adequate insurance in place to cover the replacement and/or repair of buildings and other valuable assets in this group.

Civil defence and emergency response plans

Council has identified essential staff for recovering the water, wastewater and roading systems in the event of a civil defence disaster.

Table 9: Risk Table & Mitigations

Key Exposure	Class of Risk Probability	Residual Exposure Consequence	Mitigation
Physical			
Seismic Event	Medium	High	Earthquake design standards
			Spare capacity
			Special Insurance cover
Flood Event	Low	Low	Storage capacity at treatment plant
			Ongoing search for stormwater ingress
Damage by Others	High	Moderate	Staff available 24/7
Failure due to deterioration of assets	High	Low	Regular treatment plant maintenance
			Staff available 24/7
			Renewal Programme
			Spare capacity at treatment plant and pump stations
			Asset performance monitoring
Power interruption	High	Low	Standby generator available at treatment plant
			Spill basin can store incoming effluent under gravity flow for one day
			Pump stations small and alternative pumps available
Chemical non delivery	Moderate	Moderate	Material ordered before stock runs out.
			Significant storage on site
Financial			
New large consumer	Moderate	Low	Regular meetings with development agency
			Existing plant has 30% reserve capacity
			Developments take time allowing negotiations to take place
			Developments require Council consent
Loss of large consumer	Moderate	Low	Regular meetings with large industries
			Plant can operate on lower flows efficiently
Health and Safety			
Injury to persons or property due to operations	Low	Low	Health and safety practices in place
			Trained staff
			Insurance to cover costs
Sabotage	Low	Moderate	Plant security
			Robust plant
Injury to public	Low	Low	Access denied to treatment plant site
			Significant portion of asset underground
Environmental			
Overflow of wastewater due to pipe blockages or treatment plant failures	Moderate	Moderate	Staff available 24/7 to attend to blockages
			Treatment plant has storage capacity for one day's flow
			Plant has surplus capacity
			Monitoring plant performance
			Monitor blockages in pipework



SECTION FIVE

Future Needs



CURRENT CAPACITY

Network

The capacity of the network is adequate to handle general flows and any inflows from stormwater that may happen from time to time. Blockages in the network (1-2 per month) reduce capacity temporarily.

Pump Stations

All six pump stations have twin pumps (duty and standby). Each pump has capacity to handle flows even in heavy rain periods. Pump chambers have capacity to store several hours of effluent flow if both pumps are not operational.

Treatment plant

Council's wastewater treatment capacity is as follows:

Primary screening – two screens – 10,000 population. An additional screen can be installed in the primary treatment plant to accommodate a further 5 000 population.

Solids removal – two clarifiers – current capacity 10,000 population. An additional clarifier can be installed to handle a further 5,000 population if required.

Solids Treatment – thickener and storage tank – both have the capacity to handle increased volumes to service a population of 15,000. The centrifuge has the capacity to run more hours, thereby having the capacity to manage a population of up to 15,000.

Rapid Infiltration Basins – these have the capacity to process 4,000m³ per day (estimated flow from a population of 15,000).

Consents

The worm farm can process solids generated by a population of 15,000 under existing conditions. The consent for the Waste Water Treatment plant and RIBs allows the processing of wastewater from a population of 15,000.

FUTURE DEMAND

Kawerau District has experienced and is expected to continue to experience low growth in demand for additional wastewater services.

There are a number of vacant residential sections in the town. Even if these sections were occupied, the existing wastewater

network would cope with the additional demand.

The existing wastewater network has excess capacity enabling it to cope with any reasonable increased demand. A boundary adjustment was carried out in 2012 with the subsequent initial development of a new industrial park. Council constructed a service line to the new industrial park on SH34 in response to this and the new Waiū dairy factory came online with a consent to dispose of trade waste in June 2019. The trade waste consent allows Waiū dairy to discharge a total volume of 400m³/day with a concentration of 200g/m³ of solids. This is an equivalent volume usage of 1700 population from the Treatment Plant.

There remains some influence from stormwater getting into the wastewater network during very heavy rainfall. This is likely to be caused by inflow (unauthorised connections) rather than infiltration. Detecting the source and stopping the increase in flow is desirable. The treatment plant and pipes are able to manage the increased flows, but eliminating them will improve plant performance and slightly reduce costs.

Issues that have been identified as affecting capacity are:

Removal of unauthorised stormwater connections to the wastewater network may reduce the total demand.

Population growth or decrease will change demand; however, the current system can deal with much larger than expected population changes.

Gradual deterioration of network due to ageing, that may increase infiltration and blockages, will require an increase in treatment volume. However, this is likely to be negligible when compared to current spare capacity.

TRENDS

Population growth

In the 2013 census, the total population of the Kawerau District was 6,363, a decrease of 8.1% or 561 people since the 2006 census. Despite the predicted further decline, the 2018 census showed a growth of general population to 7,460. The Kawerau district estimated population according to the 2023 census is 7,820 which represented a 4.8% increase in population since 2018 or around 1% population growth per annum.

Council hopes to bolster these gains with economic development initiatives, such as the development of a new industrial park and promotion of the natural environment.

As is the case with the rest of NZ, the population is aging with an increasing portion of the population receiving state funded superannuation and employment benefits. The average household income is expected to

remain lower than the national average and there will be an increased requirement for external funding to renew the infrastructure in the future.

Table 10: Statistics NZ Population Projections – Kawerau District

Population Change 2006–2043 (NZ Stats)								
Projected Range	2006 <i>Census</i>	2013 <i>Census</i>	2018 <i>Census</i>	2023	2028	2033	2038	2043
High				8,110	8,410	8,650	8,830	8,970
Medium	6,921	6,363	7,460	7,910	8,000	8,020	7,970	7,860
Low				7,720	7,610	7,410	7,140	6,800

NEW CAPITAL REQUIREMENTS

There are no new significant capital requirements during the life of the plan. Council will replace existing assets only.

Any new land developments in the industrial park or any future residential development will result in additional wastewater infrastructure constructed by the developer and vested in Council or funded by the developer through Council's financial contributions policy.



SECTION SIX

Lifecycle Management



ASSETS

Service Connections

Service connections connect the domestic wastewater lines from residential properties and businesses to gravity reticulation pipes. Service connections may be Asbestos Cement (AC), glazed earthenware, Polyvinyl Chloride/Plastic (PVC), depending on when a property was developed. This pipe is generally the property owner's responsibility. Council's maintenance responsibility ends at the property boundary.

The service connections are typically 100mm pipes. The material is not recorded in Council's asset register, but it is assumed that those connected during the period from 1955 to 1996 are fibre cement or glazed earthenware and those connected post 2000 are PVC.

There is one trade waste connection from Waiū dairy factory with a limited consent to discharge to the Kawerau wastewater system.

Due to the minimal length of pipe that belongs to Council, having the incorrect material is not considered significant. However, as improved information becomes available the data will be updated. Currently the service connections are not recorded in AssetFinda.

Gravity Reticulation Pipes

The network pipes are typically between 100mm and 450mm in diameter. Most of the reticulation is in the range of 150mm to 200mm that collect effluent and feed them to trunk mains (300mm to 450mm).

Depending on location, the pipes are asbestos cement, concrete, concrete lined steel, PVC, PE or glazed earthenware. The asset register holds pipe material. The accuracy of the split of different material types will be improved over time as records of material types are collected during repair operations.

A large percentage of the network pipes were installed in the period 1955 to 1975. This is expected to give rise to a significant increase of renewals as the pipes reach the end of their effective lives.

Wet to dry weather flows is an indicator of the network's condition. A typical benchmark for systems in very good condition is three. The ratio is based on peak daily flows divided by the low average (monthly) flow.

An extreme wet weather event has been known to increase peak wastewater flows to 250m³ per hour. A typical rainfall event results in an inflow of 180m³/hour. The average daily flow is around 85m³/hour giving a ratio of 2.7. It is believed that most of this infiltration is due to illegal stormwater connections rather than pipe failures.

This assumption has been made because the flow increase occurs during the rainfall event and drops off quickly after the rain ceases which is different to groundwater infiltration that has a slow increase and slow drop off in flow.

The diameter profile and materials of all the reticulation is illustrated in the tables below:

Figure 5: Diameter Profile of Wastewater Pipes

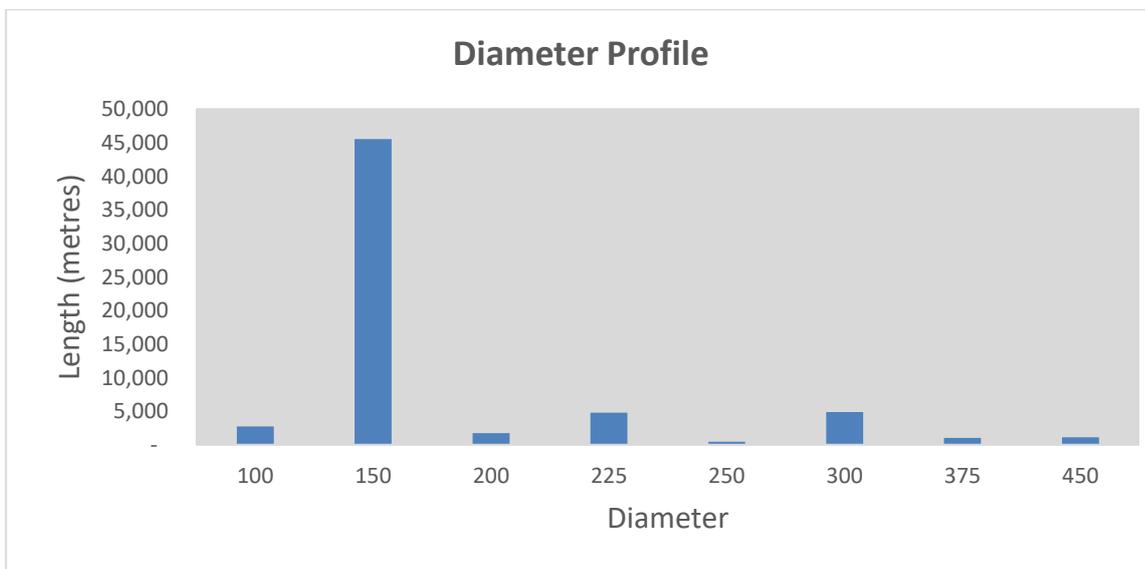
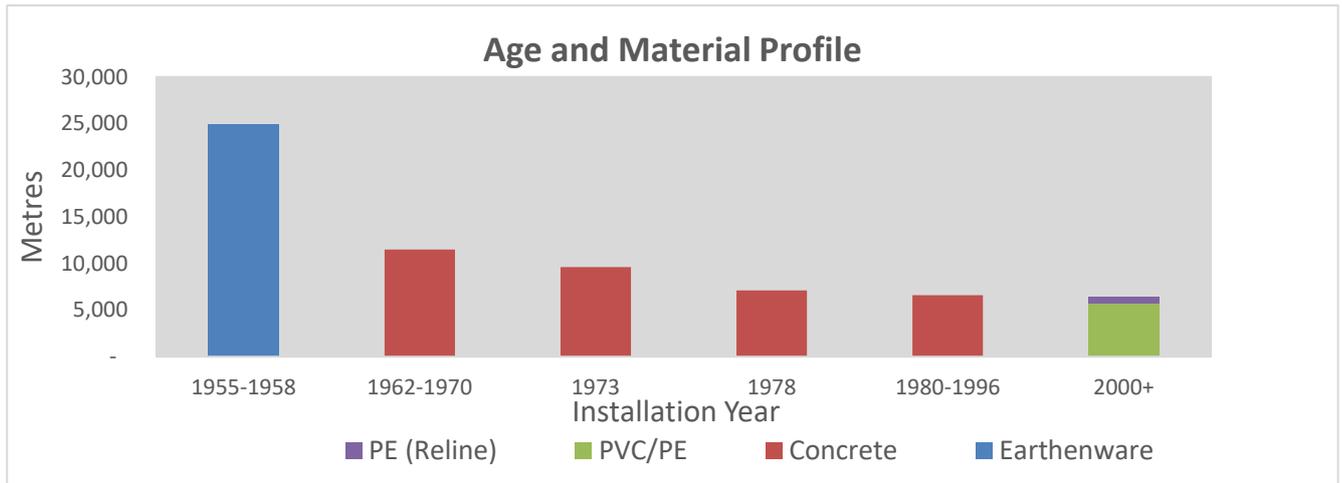


Figure 6: Age/Material Profile of Wastewater Pipes



The type of material used in the reticulation is based on the following assumptions:

Pipes installed at the time the town was constructed (1955 to 1962) were a mix of concrete and glazed earthenware

Pipes installed after 1962 and pre-1970 are concrete. This has been determined by random inspection of the pipes entering and exiting manholes.

Pipes installed from 1970 onwards were fibrolite, asbestos concrete or Supertite as manufactured in New Zealand by James Hardie & Co Ltd. Some concrete and concrete-lined steel pipes were also used in larger trunk mains.

The newer pipes (after 2000) are various types of PVC. This material has only been used in small quantities.

The installations since 2018 are PE or PE relining of pipes in the CBD.

Issues with asbestos concrete materials include softening due to age, ground conditions and to attack and corrosion by sewer gases (e.g. hydrogen sulphide). PVC is considered a long lasting material, however it is reasonably rigid, which could make it more susceptible to breakage during an earthquake.

Manholes

Manholes are used at changes in pipeline gradient, direction, diameter or at multiple service connections. They are also spaced in order to ensure easy access to the full length of the pipe. They are generally constructed of circular reinforced pre-cast concrete. The concrete bases have benching or faring from inlet pipe/s to outlet pipe to improve effluent flow.

Manhole lids, generally pre-cast reinforced concrete, span the manhole and provide support for the cast iron frames and circular cast iron access covers.

The most likely location for deterioration in manholes is at pipe entry and exits. Thus failures can be rectified or modified while the asset is in service. The system operates in an aerobic state therefore damage to the underside of the concrete manhole lids except in the geothermal area is not occurring

Pump Stations

There are six pump stations.

1. Pumps effluent from the Tarawera Park buildings to the gravity main in Cobham Drive.
2. Pumps effluent from the Firmin Field lodge to the gravity main in River Road.
3. Pump station located at Blundell Avenue and pumps the wastewater from approximately 80 houses in the Valley Road area to the gravity main in Marshall Street.
4. Pump station located at Fox's Marae which pumps wastewater from the Marae and adjoining residence. This property is currently outside the district boundary.
5. Pump station located at the new residential development off Porritt Drive.
6. Pump station located on the site of the Waiū Dairy factory in the newly developed Putauaki industrial land off SH34.

The pump stations are reinforced concrete construction and house twin pumps (duty and standby). The stations can also be pumped out using portable pumps or sucker trucks in the event of a significant failure.

Treatment Plant

The treatment plant is a single modern plant that removes solids from the wastewater. The solids (30 tonnes per week) are disposed of by vermiculture and the effluent (1,800 to 2,400 m³ per day) discharged to the Rapid Infiltration Basins.

Council owns and operates the treatment plant that consists of several processes. The processes are as follows:

Primary Screening Process – The process uses three primary pumps, two aerators, two screened wastewater pumps, large concrete tanks and two 1 mm slot size contra sheer screens. The wastewater from the town is passed through 1 mm slot size contra sheer screens to remove the coarse litter. The screened effluent is then stored in a buffer basin and transferred to the solids removal part of the plant at a constant rate. The coarse litter is disposed of through landfilling.

Solids Removal Process – The process uses four stainless vessels, chemical mixing equipment, four peristaltic pumps, centrifuge, and monitoring equipment. The screened effluent is dosed with both alum and a polymer. On passing through the clarifiers (two of the stainless vessels) the solids coagulate and settle.

The solids are then transferred to the other stainless vessels where they thicken and surplus water is decanted. The final thickened solids are processed through a centrifuge where the water content of the solids is lowered to approximately 20%. The solids are then transported to a worm farm where they are digested over 18 months into a usable soil conditioner.

Liquid Disposal Process – The process uses two pumps, a drain tank, 2km of 300mm HDPE pipe, 100mm soaker hoses and rapid infiltration basins. The clear liquid from clarifiers is pumped to rapid infiltration basins (RIBs).

The effluent is spread over the surface of the RIBs and soaks into the porous ground. As the water percolates to the ground water table any remaining solids are removed and also any remaining bacteria are destroyed (the soil acts as a purifier as the liquid percolates through it).

The significant components of the treatment plant; concrete tanks, buildings, stainless

steel vessels, stainless steel pipes are made of made of durable material and will remain operational for many years.

The pumps, electrical connections, software and centrifuge will require maintenance and replacement in accordance with standard replacement and maintenance practices.

CRITICAL ASSETS

Asset criticality is the relative risk of a high cost arising from failure of that asset. Criticality is determined by the cost and risk of potential; failures and the relative importance on society and the environment. Evaluating the different failure modes of critical assets determines what maintenance, capital expenditure and conditioning monitoring needs to be planned.

In general, critical assets are maintained on risk management principles, whereas non-critical assets are maintained reactively (replace on fail).

Of the assets described in section 6.1, the following lists those that are critical:

- The section of gravity reticulation pipes and manholes between the wastewater treatment plant and State Highway 34
- The wastewater treatment plant
- Blundell Avenue pump station.

ASSET DATA

Material Type

Field inspections have been undertaken to determine if pipes are AC or Concrete. The town has been built in phases and the earlier constructions were concrete and then AC. The later developments/renewals have used PVC and then PE. The inspection and install date data have been used to determine with a reasonable level of accuracy the types of material installed.

Getting the types of material wrong is of significance if the life of Concrete and AC are significantly different. While it is impossible to guarantee that every pipe in AssetFinda has the correct material type it is considered that the material type would have 90% accuracy.

Pipe Diameter

The pipe diameters in AssetFinda have been taken from the existing as built plans. Various cross checks have been undertaken to visually assess for glaring errors in the location of pipe diameters and there is considered to be a high level of confidence that the diameter in AssetFinda match those in the ground. It is estimated that the size of pipes in AssetFinda are in excess of 95% accurate.

Asset Locations

The physical location of the manholes has been validated by viewing the as built plans and looking to see if the location in AssetFinda appears to be correct in terms of boundaries.

Incorrect location of a manhole has very limited impact on the quantity of assets (it may impact on field staff locating the asset in the future but the physical location will be within meters of the AssetFinda location).

Significant impact only occurs where the diameter of pipes are inaccurate, thereby creating a financial impact on total asset values.

AssetFinda does not hold all the household connections information, therefore an arbitrary figure for the length of service lines has been assumed.

Overall it is considered that the accuracy of wastewater data is approximately 90% for location, quantity and materials. Management will be undertaking an exercise in the near future to improve the quality of information for wastewater assets

MAINTENANCE PLAN

General

Overall, the wastewater network is in a good state of repair. If it is maintained and renewed regularly and at the appropriate times, the existing levels of service can continue indefinitely.

Council intends to operate, maintain and renew the wastewater network on an ongoing basis so that it continues to provide the desired level of service required in the future.

Wastewater maintenance involves pump maintenance, electrical equipment servicing, videoing sewer lines and preventative clearing of sewer lines. A low level of equipment breakdown indicates that the correct level of maintenance is currently being undertaken.

A schedule of duties is performed daily, weekly, monthly or on an "as required" basis for various parts of the network. The duties include taking and recording plant performance measurements, maintenance undertaken and changes in operating practices. All maintenance, preventative maintenance and repairs are undertaken to a high standard.

Service Connections

Installation of new service connections into Council mains is undertaken to a high standard. Inspection of the connection occurs

before the connection is covered. Blockages in the sewer line from the house to the main sewer can be either the responsibility of the owner or Council depending on whether the blockage is before or after the boundary of the property.

Local plumbers are familiar with who is responsible and few disputes take place. Plumbers contact Council early in the process if they believe that the blockage may be a Council responsibility.

Pipes

Maintenance is a mixture of reactive and preventative actions. Blockages and breaks are repaired when reported and a log of faults is maintained. Preventative maintenance is carried out as follows:

- Inspection of some known trouble spots using Close Circuit Television (CCTV).

- Water blasting of problem fat build-up areas.

- Removal of trees that are known to cause repeat blockages.

- Repair of pipes with poor connections that are detected during CCTV inspections.

The network averages 0.5 to 1.0 blockages per month (6 - 10 per year). They are the result of fat build-up, roots or other foreign material in the pipes, with none due to pipe failures. There are approximately 62 km of pipes giving a blockage rate of 10 to 16 per 100km per year. Other networks report blockage rates of 30 per 100km per year. The Kawerau rate is lower than average due to the network being newer and the pipes being in good condition.

Manholes

Manhole maintenance involves re-plastering the invert, replacing rungs, replacing broken lids, raising lid levels and ensuring manholes in private sections are accessible.

Pump Stations

Pump blockages and breakdowns are repaired when they occur. Pump stations are checked daily to ensure they are working and pumps are lifted and serviced when performance declines.

Treatment Plant

Plant flows, wastewater quality and quantity are monitored continuously as it enters and leaves the treatment plant. Numerous plant checks are conducted daily to monitor plant performance and regular cleaning of the plant is undertaken. Pumps, valves, controls, mechanical devices and gas protection devices are maintained in accordance with manufacturer's recommendations. Many of

the pumps run continuously. For those areas where there are standby pumps they alternate weekly as the duty pump.

This ensures all pumps are working and because they have been replaced at various times previously, ongoing replacement is spread over a number of years.

Rapid Infiltration Basins

The basins are used on a rotation basis to ensure the ground is not saturated, which would negate the soils ability to sterilise the wastewater. Any solids in the wastewater left on the surface of the RIB are dried then removed. Mowing of some areas around the RIBs is undertaken for aesthetic reasons. Ground water is monitored to determine if there is any contamination due to the RIB operation.

Worm Farm

The solid material from the centrifuge is placed in windrows and covered immediately with wood fibre or sawdust to prevent odour. The worms eat the solids as it decomposes. The eating process removes harmful bacteria and converts the waste to a useable product: vermicompost. Once the vermicomposting has been completed, the vermicompost is taken off site for disposal or use as a soil conditioner for pasture or forests.

RENEWAL / REPLACEMENT

The network has been divided into six zones based on the estimated average date of development. Pipes and valves have a 70 - 80 year estimated life apart from the geothermal zone where the life is 40 years. Each zone is given the same installation date and the same replacement date.

Renewal/replacement funding for each zone is mostly averaged over ten years. This allows for the spread of installation dates and different rates of deterioration due to installation methods, material quality, water quality and tree roots.

Replacement decisions are based on information including the condition, reliability and maintenance cost of the asset as well as age. Council's objective is to maximise asset life without compromising service. Extending the asset life reduces the overall cost to the community and in sections of the network where the consequences of failure are minimal, the best strategy is to make sure replacement material is readily available and run the pipes to failure.

Reticulation

Concrete

The oldest of the pipes are approaching 67 years old (installed in 1957). There have been no collapses of wastewater pipe in Kawerau except in areas that are impacted by geothermal activity (Town Centre).

A section of 225mm concrete sewer pipe was removed in 2015 and tested in the Opus Lab in Christchurch. The pipe was assessed as Grade 3 - Moderate Condition. The pipe was assessed as having a further 40 years of life.

The section through the pipe that shows the level of cement that has leached from the pipe showed the following

External deterioration 0.0 to 2.6mm

Internal Deterioration 0.8 to 10.3mm

The above test result, visual observations and lack of collapses in concrete sewer pipes confirms that there is still reasonable life remaining in most of these pipes. However, the total life of the pipes has conservatively been estimated to be 70 to 80 years. But, if the pipes are still in good condition when the renewals are programmed, the remaining life will be reassessed at that time.

Visual inspections of sewer manholes that are all concrete (except those impacted by geothermal) show little sign of deterioration.

Similarly, manholes lives have conservatively been estimated to be 70 years. But, if they are still in good condition when the renewals are programmed, the remaining life will be reassessed at that time.

Asbestos Cement

Extensive testing of AC water mains has been undertaken and these show an increased level of leaching of the cement from the exterior of the pipe than that shown in the concrete sewer pipe tested. Because of the increased deterioration of the exterior of the pipe it is assumed that the sewage will have had an increased impact on the invert of the interior portion of the pipe compared to the concrete pipe as well.

There have been no collapses in the AC sewage lines. However AC was not used until around 1973 meaning that existing lines are only at most 51 years old.

Based on this information the lives for AC pipes are estimated to be 70years.

Glazed Earthenware

The Glazed Earthenware is located mostly in the geothermal area. It was installed around 1957. The pipes in the geothermal area showed signs of deterioration and have been relined with PE pipe 2017 – 2024 and those

pipes are determined to have a 40 year life due to the harsh environment.

While visual inspection of earthenware pipe in other areas shows little sign of deterioration so the life of these assets has been conservatively estimated to be 70 years.

Plastics (HDPE, PVC, UPVC)

These pipes have been installed from 2000 on so there is no local experience on expected life from deterioration.

Lives used by other Council as to the expected life varies considerably. A report received from Project Max on installing a new pipe has advised that a structural design life of 50 years. But their experience suggests Council can conservatively adopt an expected life of 80 years.

Pump Stations

Pumps at the stations are rebuilt or replaced when they fail. A decision on rebuilding versus replacing is made on purely economic grounds.

Treatment Plant

The treatment plant is relatively new and built largely of stainless steel so no significant component replacement is anticipated during the life of the 10 year plan. Components (pumps, electrical sensors, etc.) will be replaced as they fail or/and in accordance with manufacturer's recommendations.

NEW ASSETS

The resource consent for the wastewater treatment plant expires in 2032. The treatment process is currently not impacting on the

environment and provided legislation relating to water quality discharges doesn't change significantly between now and 2032, significant changes in the outputs from the treatment plant are not anticipated. Upgrading of the plant is therefore not anticipated during the life of the plan.

Deferred Maintenance

Currently there is no known deferred maintenance with the water supply network and the full service potential of the asset is being maintained. Council policy is to avoid any deferred maintenance.

Disposal Plan

There are no specific disposals identified in the plan. Pipes that are no longer required or are replaced due to failure will not be retrieved as they have no value. Normally, old pipes will be replaced by new pipes in the same location. If pipes are not replaced, they will be made safe in situ.



SECTION SEVEN
Financial Forecasts



FUTURE REQUIREMENTS

Table 11: Estimated Financial Requirements (Including Inflation)

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
<u>Expenditure</u>									
Personnel costs	260,043	268,490	275,973	283,221	289,981	296,266	302,554	308,599	314,404
Materials	424,489	445,325	465,532	485,209	506,223	520,031	534,925	547,614	559,920
Internal charges	690,910	718,050	750,740	790,850	827,450	873,850	922,710	975,460	1,041,050
Maintenance	168,730	125,570	162,780	137,840	176,050	148,510	186,300	156,710	194,430
Overheads	343,650	352,830	368,610	379,610	415,270	409,760	440,450	459,600	471,670
Depreciation	672,550	672,668	745,102	745,239	745,376	813,208	813,359	813,510	876,204
	2,560,372	2,582,933	2,768,737	2,821,969	2,960,350	3,061,625	3,200,298	3,261,493	3,457,678

Asset renewals	1,742,400	1,963,070	1,797,540	1,371,260	1,623,290	1,318,670	1,369,010	1,432,700	1,550,740
Total	4,302,772	4,546,003	4,566,277	4,193,229	4,583,640	4,380,295	4,569,308	4,694,193	5,008,418

Table 12: Estimated Asset Renewals (In today's \$)

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
<u>Expenditure</u>									
Pipes	855,957	855,957	855,957	855,957	855,957	855,957	855,957	855,957	944,719
Laterals	0	0	0	0	0	0	0	0	0
Manholes	169,360	169,360	169,360	169,360	169,360	169,360	169,360	169,360	169,360
Pumping Station	61,800	56,800	0	0	0	11,600	0	0	17,200
Treatment Plant	528,350	646,750	512,350	114,150	284,600	0	23,400	45,300	0
	1,615,467	1,728,867	1,537,667	1,139,467	1,309,917	1,036,917	1,048,717	1,070,617	1,131,279

FUNDING POLICY

The Revenue and Financing Policy sets out how Council's activities are funded. This policy has been developed to meet the requirements of the Local Government Act (LGA) 2002.

Council has broken its business down to activity level. In general, Council has assessed the availability of an activity as a public benefit and the use of an activity as a private benefit, although has not tried to determine the exact costs of availability and use.

'Availability' relates to the costs incurred to keep a service or asset in such a condition that it can become operational within a short start-up period (e.g. maintaining the water network even if it wasn't used, renewing assets).

'Use' relates to costs incurred as a result of the asset being used (e.g. chemicals and electricity).

Distribution of Benefits

The wastewater network is a benefit to the district as a whole as well as users that are connected to the service. The costs of having the network available is a public good and recoverable from all ratepayers through the general rate. The estimated "use" cost is recovered from those connected to the network through a targeted rate.

When Benefits Accrue

Council has identified a substantial intergenerational component (i.e. benefits arise over time). The wastewater infrastructure has a long life, so more than the current generation of ratepayers benefit.

Therefore, Council wishes to ensure that future ratepayers meet some of the cost. This is achieved by funding depreciation over the life of the assets.

Funding Sources

Wastewater is funded from general rates 75% and a targeted rate to properties connected to the network 25%

As the depreciation reserves grow, increased interest revenue from the investment of these reserves lowers the amount of depreciation funding that is required from rates. Inflation figures are provided by BERL, and used to determine the revaluation of the asset figures on a three-yearly cycle.

The mix of a targeted rate and the general rate is considered to reflect both the benefits to individuals that have an efficient and healthy collection and disposal system, and the community, which benefits from effluent being disposed of in a sanitary manner, with associated health benefits, by a system available for all properties to connect.

VALUATION

The wastewater network infrastructure is valued by an experienced valuer on a three yearly valuation cycle. Assets are valued at fair value determined on a depreciated replacement cost basis. The most recent valuation is effective as at 30 June 2022.

Asset basis of valuation

Valuation of wastewater assets are done on the following basis:

Table 13: Valuation Basis – Water Assets

Asset Type	Valuation Basis
Land	Market value
Buildings	DRC
Plant	ODRC
Reticulation	ODRC

The Depreciated Replacement Cost (DRC) refers to today's cost of replacing the asset with the same or a similar asset and depreciated over the life of the asset.

The Optimised Depreciated Replacement Cost (ODRC) refers to today's cost of replacing the asset with another asset that provides the same level of service most efficiently and depreciated over the life of the asset to reflect its current value and remaining economic life.

The optimised replacement cost assigned to each asset has been determined by suitably qualified and experienced professional persons and has been peer reviewed.

Expenses

Maintenance costs and operating costs are expensed in the year they are accrued. The capitalisation threshold for wastewater assets has been set at \$1,000 or the actual value of individual components where they are identified by AssetFinda.

Changes in asset valuation

The costs associated with renewing assets and providing new or improved asset infrastructure are capitalised and depreciated in accordance with the assessed economic life

of each asset. This applies also where a developer provides infrastructure to be taken over as public assets by Council.

Capitalisation Threshold

The following definitions are used for asset management purposes and the financial treatment is summarised below:

Maintenance is work done that is of an operational nature that can contribute to the asset life reaching its maximum potential but neither increases the value nor extends the remaining life of any asset. However, maintenance may enable the asset to perform at a higher level of service for a longer period of time and/or ensure that the maximum life of the asset is attained.

Renewal is work done to replace an existing asset. The cost of replacement must be recorded as a capital expenditure, be greater than \$1,000 and recorded in the asset register as a new asset with a unique identifier.

If the asset replaced is discarded or sold it must be removed from the asset register and any residual value must be formally written off.

An addition to the asset register is required when a new asset is created with a value exceeding \$1,000. A new asset must be uniquely identified, and recorded in the asset register. The record in the asset register requires an assessment of the asset's remaining life expectancy (based on straight-line depreciation or estimated remaining life).

Where the asset register recognises an individual component worth less than \$1,000, or where a length of pipe greater than 12 metres is replaced, the threshold does not apply and the additional value is capitalised.

KEY ASSUMPTIONS

The current valuation and renewal profiles are based on data currently available.

Asset condition

In the case of wastewater pipelines, the condition is taken as being directly related to age, unless better information is available. The testing of samples from repairs on pipes that are approaching the end of their useful life provides additional information. While a more planned inspection would provide a more direct assessment of condition, the cost of such programmes is high.

Replacement cost

The projected replacement costs and depreciated values shown in **Table** have

been derived from Council's asset register. Further work identified in the improvement plan, will be carried out to verify the condition of the assets and the potential need for future replacement.

Council's practice for calculating pipeline replacement costs is:

All pipeline replacement would be carried out using PE pipe.

The construction environment is brown field (replacement of existing rather than green field construction).

Unit rates for replacement are derived from latest valuation (with allowance for inflation) as undertaken by professional valuer.

Replacement of pipes includes: valves, fittings, and house connections. Unusual pipe sizes will be replaced with the next size up.

No optimisation or efficiencies in pipe size or lengths have been allowed for in replacement costs

Depreciated value and life expectancy

Straight line depreciation has been adopted for all above ground assets. The life expectancies shown in **Table** were used to calculate depreciated values.

The town centre area of Kawerau has geothermal activity. The heat and chemicals present significantly shorten the fibre cement pipe life in this area. Pipes in the geothermal area have an estimated life half that of similar assets in other areas.

It is accepted that the above approach requires improvement, because for some assets, the actual need for replacement is out of step with the theoretical depreciation. The improvement plan includes steps to make the valuation and renewal projections more robust.

Population

Further sustained decline in population as predicted by Statistics NZ may seriously erode the rating base of the district, placing a higher burden on the remaining residents for any infrastructure upgrades and possibly affecting capacity to fund renewal works. Population trends must therefore be reviewed as frequently as reliable data can be obtained.

Other assumptions

All expenditure is stated in 2022 values, with allowance made for the inflation over the planning period.

All costs are GST exclusive.

Operational costs are generally shown to increase in relation to inflation.

Renewal costs are based on anticipated replacement requirements.

The costs of insurance and risk mitigation are included in the forecasts.

Climatic and other environmental trends are expected to continue as they have in the recent past.

The plan provides scope for some growth in industrial/commercial demand.

Spare capacity in Council's infrastructure means it can cope with growth. Therefore, Council does not need to extend infrastructure to cope with increasing demand.

Council has resolved not to assess development contributions but to retain the provisions of the district plan that allow the assessment of financial contributions.

Financial Contributions

New subdivisions or developments may require the extension of council infrastructure networks for water supply, wastewater disposal, stormwater and roading. Council's financial contributions policy provides that the cost of these extensions is the responsibility of those who create the demand.

Subdividers and developers may be required to make financial contributions to meet the full cost of additional infrastructure necessary to support their subdivision or development.

Development Contributions

Section 106 of the Local Government Act 2002 requires local authorities to adopt development contributions or financial contributions policies.

Table 4: Replacement Costs and Depreciated Values (@30 June 2022)

Asset Type	Gross Replacement	Depreciated Replacement Cost
Pipelines	\$22,882,400	\$6,188,090
Laterals	\$881,500	\$392,300
Manholes	\$3,410,640	\$785,570
Pumping Station	\$567,970	\$424,720
Screening	\$2,679,630	\$1,914,880
Treatment Plant	\$7,223,090	\$4,108,400
TOTAL	\$37,644,700	\$13,813,960

Table 5: Asset life expectancies

Asset Type	Life Expectancy
Buildings	80 years
Pumps, controls	25 years
Pipes – PVC & PE	80 years
Pipes – Concrete, AC & Glazed Earthenware	70 years
Pipes (geothermal area)	40 years
Manholes	70 years



SECTION EIGHT

Asset Management Systems & Processes



Responsibilities for Asset Management Outcomes

The Engineering Manager is responsible for the development of this asset management plan, including maintaining the integrity of Council's asset information.

The Engineering Manager is also responsible for the identification, budgeting, planning, programming and undertaking of works required for the maintenance and renewal of Council's wastewater assets.

The Group Manager, Finance & Corporate Services is responsible for providing an overview of the development of this asset management plan, for ensuring that future projects are incorporated in Council's Long Term Plan, Infrastructure Strategy and that there is consistency between these documents.

The Group Manager, Operations and Services is responsible for delivering the outcomes for the wastewater activity. This includes ensuring that the assets are maintained and operated to Council's requirements, that adequate budgets for maintenance, operating and improvement costs are provided.

Accounting and Asset Management Systems

Billing/Accounting system

Council uses the Ozone software for its accounting and billing systems. It does not store or compute asset management information, but can be used to determine the number of connections to the wastewater and the number of properties billed for separate wastewater rates.

Currently, all formal asset management financial reporting including valuation is held in Excel spreadsheets.

This information will be migrated into the AssetFinda system in the near future.

AssetFinda

AssetFinda is the software used to manage and produce asset inventory reports. It is integrated with 'Map Info' data tables to permit input, querying, reporting and financial modelling using the asset register data. The spatial location of the wastewater assets can be laid over aerial maps, property boundaries, along with water and stormwater assets.

The software has yet to have financial data added to allow financial modelling for current replacement and depreciation value reporting.

New asset information (location, installation date, materials' construction etc.) is entered into AssetFinda at the time the asset is installed.

The default valuation process used by AssetFinda is capable of recognising asset condition, extending the life of an asset and recalculating revised depreciation value and annual depreciation.

The improvement plan proposes that the appropriate financial information be entered into AssetFinda.

Hard copy plans

Layout details of the pipes and structures are available for most of the wastewater asset.

Attaching information like pump performance, type etc. to assets is a desirable improvement. Also linking photographs and 'as built' drawing to the asset will improve the data.

Key Information Flows and Processes

Key information flows and process linkages include:

- Translating the Community Outcomes into detailed levels of service that can be embodied into Asset Management Plans

- Preparation of annual budgets, and ongoing reporting

- Updating asset data as information becomes available through maintenance and service repairs

- Ongoing compliance monitoring and reporting of environmental performance

- Ongoing management of the asset to ensure that service levels are maintained

Quality management

Management is governed by the requirements of the treatment plant consent. Programmed sampling of wastewater is undertaken at the treatment plant by electronic equipment and verified by manual sampling.

Sampling of the groundwater determines if there is any impact on groundwater quality from treated wastewater being discharged to the RIBs. The testing programme provides assurance that the treatment process is satisfactory and results are submitted to the BOPRC in accordance with resource consent requirements.

Maintenance

Maintenance is carried out reactively for most asset faults. The criteria resulting in renewal rather than further maintenance are:

Is the asset important for maintaining service levels and have the service levels in the current year already been compromised by failures? If yes consider renewal.

What has been the failure history? If the current failure is part of a series, then consider renewal.

Is the cost of the maintenance comparable to the cost of renewal? Where repair costs are high then consider renewing a logical minimum quantity of asset to prevent further expensive repair costs.

Will maintenance preserve asset life? If yes, then carry out maintenance.

Policies for renewing assets

Replacing network components with larger components to improve capacity is treated purely as renewal capital expenditure. This is because the additional cost of larger components is not material compared with the renewal cost of component of the same kind. Renewal of assets will occur in accordance with practice described earlier in document.

Constructing new assets

Following many years of no demand for additional capacity, recent land developments for industry and residents have resulted in the need for additional new assets. Although this did not require the need for additional capacity, future funding to provide additional capacity would be treated on its merits. In most cases the funding would be sought from the developers/subdividers.

Assets vested in Council

Subdivisions include wastewater networks. These are installed at subdivider's expense to approved Council standards and then vested in Council.

'As built' new works either occurs due to subdivisions, or the installation of new assets. In both instances, detailed records of new works are obtained. These new assets are added to the AssetFinda database.

Asset disposal

Most of the components are essential to continuing provision of the service. Extensive decommissioning and disposal is unlikely.



SECTION NINE

Monitoring Improvement Planning



Asset Management Performance Measures

The broad objectives of asset management are:

- To optimise the life of the assets
- To minimise life cycle costs
- To maintain agreed levels of service

Although it is possible to measure the success or otherwise of the asset management activity over the long term against the three criteria above, it will obviously be difficult to measure success or otherwise in the short term in a way that management control can be exerted. For example, it will be impossible to determine whether the life of a facility has been “optimised” until the actual age nears the expected life and a remaining life assessment can be meaningfully carried out.

An assessment of the asset knowledge and processes currently carried out, in terms of “best practice for a NZ authority of this size” provides an indication of how well Council is likely to be meeting these long term objectives. This assessment is therefore part of the Improvement Plan. It should include evaluation of the monitoring of operations and costs to provide information on the achievement of service level (both public measures and technical standards). It should cover previously-planned improvement actions, noting whether these have been achieved and how they are contributing to current processes. It should check how the initiatives undertaken are ‘rolled out’ from asset management staff to those carrying out the work, and how carefully field information is recorded and returned to add to the asset knowledge case.

Improvement Actions

Table 16: Improvement Actions

Improvement Item	Comment	By When	By Whom	Cost
Expand knowledge of AssetFinda functionality	Training staff (EM & 3 Waters Engineer)	Ongoing improvement	GMOS	\$5,000
Maintain AssetFinda database	Three Waters Engineer recruited and being trained	Annually	EM Consultants	\$20,000
Review asset life expectancy	Test pipes and manholes for deterioration	June 2025 and triennially thereafter	EM	\$10,000
Conduct asset revaluations	Up to date	June 2025 and annually thereafter	GMFCS	\$10,000

EM = Engineering Manager

GMOS = Group Manager Operations and Services

GMFCS = Group Manager Finance and Corporate Services

Monitoring and Review Procedures

The Group Manager Operations and Services will monitor and review improvement items on a six monthly basis. This plan will be reviewed annually as part of annual plan development.



SECTION TEN
Appendices



APPENDIX A - DETAILED ASSET DESCRIPTION

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Pipes				
WASTEWATER PIPES - ZONE 6	300	PVC	106	2009
WASTEWATER PIPES - ZONE 6	300	PVC	95	2018
WASTEWATER PIPES - ZONE 6	300	PVC	988	2018
WASTEWATER PIPES - ZONE 6	225	PVC	44	2019
WASTEWATER PIPES - ZONE 6	150	PVC	75	2006
WASTEWATER PIPES - ZONE 1	450	CONCRETE/EARTHENWARE	1107	1956
WASTEWATER PIPES - ZONE 1	375	CONCRETE/EARTHENWARE	1000	1956
WASTEWATER PIPES - ZONE 1	300	CONCRETE/EARTHENWARE	2726	1956
WASTEWATER PIPES - ZONE 1	225	CONCRETE/EARTHENWARE	1787	1956
WASTEWATER PIPES - ZONE 1	150	CONCRETE/EARTHENWARE	14698	1956
WASTEWATER PIPES - ZONE 1	150	PVC	86	2017
WASTEWATER PIPES - ZONE 1	150	PVC	184	2018
WASTEWATER PIPES - ZONE 1	150	PVC	14	2019
WASTEWATER PIPES - ZONE 1	150	PE	220	2021
WASTEWATER PIPES - ZONE 1	150	PE	2470	2022
WASTEWATER PIPES - ZONE 6	150	PE	353	2023
WASTEWATER PIPES - ZONE 6	225	PE	235	2023
WASTEWATER PIPES - ZONE 6	300	PE	120	2023
WASTEWATER PIPES - ZONE 6	150	PE	429	2024
WASTEWATER PIPES - ZONE 6	225	PE	236	2024
WASTEWATER PIPES - ZONE 6	300	PE	62	2024
WASTEWATER PIPES - ZONE 6	150	PVC	90	2007
WASTEWATER PIPES - ZONE 2	225	CONCRETE	420	1965
WASTEWATER PIPES - ZONE 2	150	CONCRETE	8369	1965
WASTEWATER PIPES - ZONE 3	300	CONCRETE	497	1973
WASTEWATER PIPES - ZONE 3	225	CONCRETE	1788	1973
WASTEWATER PIPES - ZONE 3	200	CONCRETE	603	1973
WASTEWATER PIPES - ZONE 3	150	CONCRETE	6706	1973
WASTEWATER PIPES - ZONE 4	200	CONCRETE	781	1978
WASTEWATER PIPES - ZONE 4	150	CONCRETE	6318	1978
WASTEWATER PIPES - ZONE 5	300	CONCRETE	295	1985
WASTEWATER PIPES - ZONE 5	250	CONCRETE	443	1985
WASTEWATER PIPES - ZONE 5	225	CONCRETE	325	1985
WASTEWATER PIPES - ZONE 5	200	CONCRETE	365	1985
WASTEWATER PIPES - ZONE 5	150	CONCRETE	5167	1985
Piripiri / Tiwhatiwha Cres	150	PE	643	2020
Laterals - District Wide	100	Concrete	2717	1966
Laterals - New	100	PE	25	2021
Manhole		Concrete	253	1957
Manhole		Concrete	95	1965
Manhole		Concrete	150	1973
Manhole		Concrete	112	1978
Manhole		Concrete	113	1985
Manhole		Concrete	3	1996
Manhole		Concrete	10	2005
Manhole		Concrete	6	2008
Manhole		Concrete	1	2016
Manhole		Concrete	1	2017
Manhole	Piripiri / Tiwhatiwha Cres	Concrete	18	2020
Manhole	CBD	PE Lined	10	2024
Flushing tank		Concrete	3	1965
Flushing tank		Concrete	1	1985
Cleaning Eye		Concrete	6	1973
Lamphole		Concrete	11	1957

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Pumping Stations				
Blundell Ave	CONTROLS	ELECTRICAL	1	1975
Blundell Ave	PUMPS	SUBMERSIBLE	2	2014
Blundell Ave	TELEMETRY	ELECTRICAL	1	1998
Blundell Ave	PUMP STRUCTURE - WET WELL	REINFORCED CONCRETE	2	1975
Tarawera Park	PUMPS	SUBMERSIBLE	3	1980
Tarawera Park	PUMPS	SUBMERSIBLE	1	2012
Tarawera Park	PUMPS	SUBMERSIBLE	2	2019
Tarawera Park	CONTROLS/TELEMETRY	ELECTRICAL	1	1980
Tarawera Park	CONTROL SHED	STEEL	1	1981
Tarawera Park	WET WELL	REINFORCED CONCRETE	4	1980
Tarawera Park	WET WELL - NEW PUMPS	REINFORCED CONCRETE	1	2016
Fox's Marae	WET WELL	REINFORCED CONCRETE	1	1998
Fox's Marae	CONTROLS	ELECTRICAL	1	1998
Fox's Marae	PUMPS	SUBMERSIBLE	2	2024
Firmin Lodge	WET WELL	REINFORCED CONCRETE	1	2015
Firmin Lodge	CONTROLS/TELEMETRY	ELECTRICAL	1	2015
Firmin Lodge	PUMPS	SUBMERSIBLE	2	2015
Waiū Dairy	WET WELL	REINFORCED CONCRETE	1	2020
Waiū Dairy	CONTROLS/TELEMETRY	ELECTRICAL	1	2020
Waiū Dairy	PUMPS	SUBMERSIBLE	2	2020
Waiū Dairy	TRADEWASTE CONTROL METER	ELECTRICAL	1	2020
Piripiri Cres-Retirement Village	PUMPS	SUBMERSIBLE	2	2021
Piripiri Cres	WET WELL	REINFORCED CONCRETE	1	2021
Piripiri Cres	CONTROLS/TELEMETRY	ELECTRICAL	1	2021

ASSET	DESCRIPTION	MATERIAL	QTY	YEAR
Treatment Plant Spencer Ave				
WASTEWATER PROCESSING	CONTROLS	ELECTRICAL	1	1988
WASTEWATER PROCESSING	CONTROLS - ADDITIONS	ELECTRICAL	1	2018
WASTEWATER PROCESSING	PUMPEX PX3-150 VORTEX (RAW WATER)	MECHANICAL	3	2013
WASTEWATER PROCESSING	PUMPEX PX3-100 (SCREEN WATER)	MECHANICAL	2	2019
WASTEWATER PROCESSING	TSURUMI TOS - 55 BER 2 SUBMERSIBLE EJECTORS	MECHANICAL	3	2018
WASTEWATER PROCESSING	CONTRA SHEAR 15/12 MILLISCREENS	MECHANICAL	2	2000
WASTEWATER PROCESSING	MILLISCREEN CONTROLS	ELECTRICAL	2	1988
WASTEWATER PROCESSING	PIPEWORK	STEEL	1	1988
WASTEWATER PROCESSING	STRUCTURE - SEWAGE PUMP STATION SUMP	REINFORCED CONCRETE	1	1988
WASTEWATER PROCESSING	SUMP VALVE CHAMBER	REINFORCED CONCRETE	1	1988
WASTEWATER PROCESSING	MILLISCREEN BUILDING	BUILDING	1	1988

WASTEWATER PROCESSING	SCREENED SEWAGE BUFFER TANK	REINFORCED CONCRETE	1	1988
WASTEWATER PROCESSING	TRANSFER PUMP SUMP	REINFORCED CONCRETE	1	1988
WASTEWATER PROCESSING	TPS VALVE CHAMBER	REINFORCED CONCRETE	1	1988
WASTEWATER PROCESSING	RAW PIT CHAMBER	REINFORCED CONCRETE	1	2024
WASTEWATER PROCESSING	RAW PIT PUMPS	MECHANICAL	2	2024
WASTEWATER PROCESSING	SCREEN WASTE PUMP & VALVE	MECHANICAL	1	2024
WASTEWATER PROCESSING	WWTP _ CRANE	MECHANICAL	1	2024
WASTEWATER PROCESSING	EARTHWORKS/ SITE DEVELOPMENT		1	1988
ASSET				
Treatment Plant Spencer Ave	DESCRIPTION		QTY	YEAR
WASTEWATER TREATMENT	ELECTRICAL CONTROL BUILDING - LOCKWOOD STYLE BUILDING		1	1989
WASTEWATER TREATMENT	EXTRACTOR FANS - CENTRIFUGE BUILDING		1	2018
WASTEWATER TREATMENT	WI-FI WASTEWATER TREATMENT PLANT		1	2017
WASTEWATER TREATMENT	COMPUTER EQUIPMENT		1	2021
WASTEWATER TREATMENT	PLC CONTROLS & STAINLESS STEEL CABINET		1	2005
WASTEWATER TREATMENT	DISTRIBUTION BOARD & STAINLESS STEEL CABINET		1	2005
WASTEWATER TREATMENT	MAIN CONTROL CABINETS, SWITCHGEAR & RETICULATED SERVICES		1	1985
WASTEWATER TREATMENT	VARIABLE SPEED DRIVES - THROUGHOUT (APPROX 12)		1	2005
WASTEWATER TREATMENT	ELECTRONIC POWER FACTOR REGULATOR		1	2005
WASTEWATER TREATMENT	EMERGENCY GENERATOR - 150KVA		1	2005
WASTEWATER TREATMENT	UPS SYSTEM WITH 5 X GXT - 48V BATT BATTERY PACKS		1	2024
WASTEWATER TREATMENT	AIR CONDITIONING SYSTEM		1	2021
WASTEWATER TREATMENT	CLARIFIER A - STAINLESS STEEL CLARIFIER INCLUDING SUPPORT STRUCTURES		1	2005
WASTEWATER TREATMENT	CLARIFIER B - STAINLESS STEEL CLARIFIER INCLUDING SUPPORT STRUCTURES		1	2005
WASTEWATER TREATMENT	THICKENER - STAINLESS STEEL TANK INCLUDING SUPPORT STRUCTURES		1	2005
WASTEWATER TREATMENT	SLUDGE STORAGE TANK - STAINLESS STEEL TANK INCLUDING SUPPORT STRUCTURES		1	2005
WASTEWATER TREATMENT	BREDEL SP40 PERISTALTIC PUMP		2	2008
WASTEWATER TREATMENT	BREDEL SP50 PERISTALTIC PUMP		2	2008
WASTEWATER TREATMENT	BREDEL SP50 PERISTALTIC PUMP - SPARE		1	2023
WASTEWATER TREATMENT	RIB FEED - FIBRE GLASS TANKS		4	1990
WASTEWATER TREATMENT	TREATED EFFLUENT - FIBRE GLASS TANKS		4	1990
WASTEWATER TREATMENT	CENTRIFUGAL PUMPS WITH 3KW MOTORS		2	2019
WASTEWATER TREATMENT	CENTRIFUGAL PUMPS WITH 3KW MOTOR		1	2021
WASTEWATER TREATMENT	ENCLOSED UV STERILISER - NOT IN USE		1	2008
WASTEWATER TREATMENT	AUTOMATED SAMPLING POINT INCLUDING TIMER, VALVES & REFRIGERATED CABINET		1	2,008
WASTEWATER TREATMENT	FABRICATED STAINLESS STEEL LABYRINTHS		1	2008
WASTEWATER TREATMENT	ROYCE 7011A SUSPENDED SOLID ANALYSER		4	2008

WASTEWATER TREATMENT	ROYCE 7011A SUSPENDED SOLID ANALYSER	1	2021
WASTEWATER TREATMENT	MISCELLANEOUS FLOWMETERS & INSTRUMENTS - THROUGHOUT	1	2008
WASTEWATER TREATMENT	STAINLESS STEEL PIPEWORK & VALVES - THROUGHOUT	1	2005
WASTEWATER TREATMENT	MISCELLANEOUS STEEL WALKWAYS & PLATFORMS	1	2005
WASTEWATER TREATMENT	CONCRETE HARDSTANDING FOR PLANT & EQUIPMENT	1	2007
WASTEWATER TREATMENT	CONCRETE BLOCK CONSTRUCTION WITH LONGRUN STEEL ROOF	1	2008
WASTEWATER TREATMENT	CLARIFYING DECANTER COMPLETE WITH CONTROL PANELS, VSD'S, ETC	1	2022
WASTEWATER TREATMENT	INCLINED SCREW CONVEYOR	1	2008
WASTEWATER TREATMENT	TRANSFER SCREW CONVEYOR	1	2021
WASTEWATER TREATMENT	CATIONIC POLYMER DOSING SYSTEM INCLUDING METERING PUMP, DOSING PUMP, DILUTE TANK & ANCILLARIES	1	2021
WASTEWATER TREATMENT	POLYMER RECIRCULATING PUMP	1	2008
WASTEWATER TREATMENT	POLYMER THICKENER DOSING PUMP	1	2008
WASTEWATER TREATMENT	POLYMER CENTRIFUGE DOSING PUMP	1	2020
WASTEWATER TREATMENT	CONTROL ROOM PRESSURISATION SYSTEM	1	2008
WASTEWATER TREATMENT	ALUM TANK - CONCRETE BUND	1	1990
WASTEWATER TREATMENT	ALUM TANK - FIBRE GLASS TANK	1	1990
WASTEWATER TREATMENT	ALUM METERING PUMP	1	2021
WASTEWATER TREATMENT	STATIC MIXERS	1	2005
WASTEWATER TREATMENT	PROCESS WATER CENTRIFUGAL PUMP INCLUDING PIPEWORK & VALVES	1	1990
WASTEWATER TREATMENT	RECYCLE SUMP - UNDERGROUND TANK	1	2000
WASTEWATER TREATMENT	SUBMERSIBLE PUMPS	2	2018
WASTEWATER TREATMENT	AGITATOR	1	2005
WASTEWATER TREATMENT	AGITATOR	1	2022
WASTEWATER TREATMENT	PIPEWORK & VALVES - THROUGHOUT 1	1	2005
WASTEWATER TREATMENT	PIPEWORK & VALVES - THROUGHOUT 2	1	1996
WASTEWATER TREATMENT	PIPEWORK & VALVES - THROUGHOUT 3	1	2009
WASTEWATER TREATMENT	RIB DISCHARGE PIPE	1	2024
WASTEWATER TREATMENT	RIB DISCHARGE CHAMBERS 1	1	1990
WASTEWATER TREATMENT	RIB DISCHARGE CHAMBERS 2	1	2009
WASTEWATER TREATMENT	STORAGE SHED WITH CONCRETE FLOOR	1	2019
WASTEWATER TREATMENT	PUMP - Backup	1	2020
WASTEWATER TREATMENT	PUMP - Backup	1	2022
WASTEWATER TREATMENT	OFFICE/LABORATORY - WEATHERBOARD CONSTRUCTION WITH LONGRUN IRON ROOF	1	1985
WASTEWATER TREATMENT	SEPTIC HOLDING TANK - 25,000 LITRE	1	1988
WASTEWATER TREATMENT	SECURITY FENCING	1	1986

WASTEWATER TREATMENT	SECURITY FENCING - ADDITION 2017	1	2017
WASTEWATER TREATMENT	WWTP _ OVERFLOW STORAGE TANK	1	2021
WASTEWATER TREATMENT	WWTP _ REPEATER (MONIKA LANHAM)	1	2021

Meeting: Audit and Risk

Meeting Date: 7 April 2025

Subject: **Key Underlying Documents for Long Term Plan 2025 - 2034**

File No.: 110553

1 Purpose

The purpose of this report is to provide the Committee with the following key underlying documents that form part of the Long Term Plan 2025 – 2034:

- Draft Financial and
- Draft Infrastructure Strategies and the
- Draft Significant Draft Forecasting Assumptions
- Draft Revenue and Financing Policy

Council will adopt all of these supporting documents at the Extraordinary Council meeting on 9 April 2025.

2 Background

The Local Government Act 2002 requires all Councils to adopt a Financial Strategy, Infrastructure Strategy and Revenue and Financing Policy which are included in the Long Term Plan. These strategies and policies underpin the budgeted revenue and expenditure projections for the Long Term Plan.

Staff have updated the documents to reflect the programmed renewals as well as expenditure and funding decisions that Council has made to date. These documents are being reviewed by Council's auditors to ensure they are consistent and align with Council's asset management plans.

Council is required to consult on its proposed Long Term Plan 2025 - 2034 by providing a Long Term Plan Consultation Document (CD). Supporting information such as draft strategies, policies and assumptions must be separately adopted and made available to the public during the special consultative procedure.

3 Long Term Plan Key Underlying Documents

The following are the key underlying documents that will be adopted by Council for inclusion in the Long Term Plan, and also for consultation with the community:

3.1 Draft Significant Forecasting Assumptions (Appendix 1)

The Long Term Plan must disclose the significant forecasting assumptions that are the basis of the preparation of the Long Term Plan. The assumptions have been reviewed and updated to reflect current assumptions applied in the preparation of the Long Term Plan.

The key assumptions include:

- Council has capacity for a population of 10,000 with Council's current infrastructure, which is within the forecasted population growth projections. Therefore, there are no significant growth impacts or factors.
- There are still uncertainties with regards to the requirements for disclosures with regards to Local Water Done Well and the link with the Water Services Delivery Plan. By mid June, Council will have completed consultation with the community on the preferred model for Local Water Done Well. Following deliberations on the community's feedback, the Water Services Delivery Plan will be finalised and is to be submitted to the Department of Internal Affairs by 3 September 2025. The Long Term Plan 2025 – 2034 will be updated prior to adoption on 25 June 2025, with the latest disclosure requirements with regards to Local Water Done Well known at that time.
- Council has forecast inflation based on data projections from Business and Economic Research Limited (BERL). The inflation factors for the next nine years are included in the assumptions.

3.2 Draft Financial Strategy (Appendix 2)

The Draft Financial Strategy provides the financial principles and approach for the next nine years as Council delivers services to the community in a financially prudent and sustainable manner. It provides a guide on how Council considers funding and expenditure proposals and making transparent the overall effects of those proposals.

Section 101A of the Local Government Act requires all Councils to adopt a Financial Strategy and prescribes what the financial strategy must include.

The Draft Financial Strategy as presented is consistent in structure to Council's previous Financial Strategy, however the financial data that is a significant component of the strategy reflects the next nine years of projected rates, operational expenditure and asset renewals.

3.3 Draft Infrastructure Strategy (Appendix 3)

The Draft Infrastructure Strategy provides a comprehensive overview of the infrastructure services Council will deliver over a 30 year period, and options for managing any related issues or challenges. Section 101B of the Local Government Act prescribes what the Infrastructure Strategy must include.

With the completion of Council's Asset Management plans for Water, Wastewater, Stormwater and Roading, the key data from these plans is included in the Draft Infrastructure Strategy. The Draft Infrastructure Strategy as presented is overall consistent with the previous strategy detailed in the Long Term Plan 2021 - 2031, however it has been updated to include further information and reflects the projected capital/renewals and operating expenditure for the next 30 years.

3.4 Draft Revenue and Financing Policy (Appendix 4)

The Draft Revenue and Financing Policy essentially determines how each activity's costs are going to be shared between users (private/individual benefit) and ratepayers (public/community benefit).

The Draft Revenue and Financing Policy as presented has been updated in the new policy template format and is attached in Appendix 4. When setting the funding ratios for the public and private benefits for its activities, Council has taken into consideration the User's ability to pay (reflective of affordability considerations) and ensuring access for the Community.

The Draft Revenue and Financing Policy has been reviewed by Council and the key updates are:

- **Range of Percentages:** The current policy has one set percentage for the current User pays to contribute to the cost of each activity. As there can be variations in the levels of service used and alternative funding contributions from one year to the next, the draft policy as presented utilises a range of percentages to reflect variations.
- **Updated Public/Private Percentages:** A review of each activity was completed to ensure that the percentages for public vs private benefit reflected Council's expectations. The following activities were amended:
 - Firmin Lodge: User fees updated to 50-60% (was 45%).
 - isite: User fees updated to 50-60% (was 75% however Council cannot always charge for the services the isite provides, changed to reflect this)
 - Zero Waste: User fees updated to 0-20% (was 0%, however Council now receives grants for waste minimisation and has some user fees)
 - Public Hall: User fees updated to 0-10% for all Public Halls rather than having each individual facility (was 10% of only availability costs, not total facility costs). Key for Council with facility fees is affordability and accessibility for the community.
- **Water and Wastewater:** Council currently funds a significant portion of the water and wastewater costs from the general rate, rather than from targeted rates. In light of the changes with regards to Local Water Done Well, Council has considered that transitioning to increased targeted rates for water and wastewater is the responsible approach. Council has indicated that a gradual longer term (9 years) would be the recommended transition period. Council will consult on this option with the community in the Long Term Plan Consultation Document and also provide a shorter five year transition as an option. This change has been reflected in the Revenue and Financing Policy that there is a higher private benefit for the provision of water and wastewater services.

4 Summary

Council will be presented with the following key documents which form part of Council's proposed Long Term Plan 2025 – 2034.

- Draft Significant Forecasting Assumptions
- Draft Financial Strategy (2025 – 2034)

- Draft Infrastructure Strategy (2025 – 2034)
- Draft Revenue and Financing Policy
- Draft Financial Contributions Policy (previously presented to the committee)

All of these documents have been developed in accordance with required statutory procedures and prior to adoption will incorporate any recommendations from Audit NZ. These documents will all be presented to Council to formally adopt on the 9th of April 2025.

5 RECOMMENDATION

That the report “Key Underlying Documents for Long Term Plan 2025 – 2034” be received.



Lee-Anne Butler CA, BMS

Group Manager Finance and Corporate Services

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Draft Significant Forecasting Assumptions – 2025 to 2034

Financial estimates form part of the Long Term Plan. These estimates are based on assumptions about future conditions and events, which may or may not occur. A financial estimate's quality is therefore dependent on the appropriateness, completeness and reasonableness of the underlying assumptions as well as on the underlying information. Actual results may differ from these assumptions and variations may be material. The information in these financial statements is initially for the purpose of Council consulting with the community on the spending priorities outlined in the Long Term Plan.

The Local Government Act requires these assumptions to be disclosed. This allows the readers to make their own judgement on the assumptions' quality and reliability. To further assist readers make an informed judgement, it is also necessary to provide information about the sensitivity (to change) of financial estimates.

The Local Government Act describes these financial estimates as being based on assumptions that 'involve a high level of uncertainty'.

The Long Term Plan must clearly identify:

- All the significant forecasting assumptions and risks underlying the financial estimates
- The assumptions of the Council concerning the useful lives of significant assets and the sources of funds for future replacement of those significant assets.

- In any case where significant forecasting assumptions involve a high level of uncertainty, the fact of that uncertainty and an estimate of the potential effects of that uncertainty on the financial estimates provided.

The assumptions made in preparing the forecasts are discussed below:

1. Useful Lives of Significant Assets

The following table lists the estimated economic life of Council's significant assets and will be applied to the planned asset acquisitions in this Plan:

Class	Asset	Life (years)
Operational	Buildings	5-50
	Computers/electronic office equipment	3-5
	Fixtures, fittings and equipment	5-50
	Plant (vehicles)	5
	Library lending matter (excluding special collections)	7
	Special Collections	Not depreciated
	Transport Management:	
	Street lighting	5-47
	Kerb, channel and footpath	5-100
	Bridges and Culverts	18-80
Infrastructural	Pavement surface	3-19
	Pavement structure	5-80
	Stormwater	5-100
	Water Supply:	
	Collection and storage	2-80
	Local distribution	5-80
	Wastewater:	
	Reticulation system	5-80
	Pumping and treatment	5-80
	Buildings and Other	6-25
Restricted		

NOTE: It is assumed that assets will be replaced at the end of their useful lives

Risk: Useful lives of assets are greater (or less) than the estimate

Likelihood: Low. Asset management plans are in place for significant assets, with the assets condition monitored and assets well maintained.

Impact: That the current ratepayers will contribute more (or less towards the cost of those assets than other generations of ratepayers. Council endeavours to achieve inter-generational equity for the cost/renewal of assets over their useful lives

2. Sources of Funds for Future Replacement of Significant Assets

Council had fully funded depreciation on all its significant assets (being roading, water and wastewater infrastructure and networks), up until 30 June 2023. From 1 July 2023, following consultation with the community Council reduced the level of depreciation funding, as a mechanism to reduce the significant rates increase, due to the high inflationary impacts. This reduced funding of depreciation (to 65% of depreciation expense) was a temporary approach, with the intention for Council to gradually return to fully funding depreciation on significant assets. The depreciation funds are put into reserves and used for the replacement of significant assets.

However, some buildings are considered non-strategic, and the depreciation is not funded, mostly because the level of utilisation is significantly below the buildings' capacity. As a result, it is unlikely these buildings would be replaced in their present form. Also, their replacement may be by rented accommodation or by buildings funded by way of loans and/or grants. The advantage of not funding depreciation on these buildings is that the community is not rated for depreciation on assets that are unlikely to be replaced with buildings of equivalent value.

Buildings that are unlikely to be replaced in their present form and therefore their depreciation is not funded, include: Council Buildings

(including Town Hall, Concert Chamber, Library/Museum and Offices), Tarawera Park Amenity Building, Recreation Centre, Swimming Pool, Depot and Pensioner Houses.

Other sources of capital funding include NZTA subsidies, as outlined in assumption No. 5, and internal loans.

Risk: That the community wants the non-strategic assets renewed in their present form and there are no other funding sources available for their renewal

Likelihood: Medium

Impact: Minimal. That Council will need to raise loans to fund the renewals to these non-strategic buildings

3. Revaluation of Non-current Assets

Council's current accounting policy is that Infrastructural assets (including land and buildings) are revalued on a three-yearly basis. The last revaluation was as at 30 June 2022. Under the current policy, revaluations will occur as at 30 June in the years 2025, 2028, 2031 and 2034.

The effect of the revaluations has been estimated using the forecasts of price level change adjustors prepared by Business and Economic Research Limited (BERL) from the latest revaluation per the Annual Report to 30 June 2022. At the time of preparing the Long Term Plan no new revaluation figures were available.

Risk: That the actual revaluation and the consequential depreciation expense is materially different to the Long Term Plan projections.

Likelihood: Medium

Impact: Low. Council will amend the depreciation budgets accordingly in the preparation of each Annual Plan to reflect any increases in depreciation following the revaluations.

Likelihood: Medium

Impact: Minimal. There is sufficient capacity in the infrastructure to cope with a much higher population than current.

4. Projected Growth Change Factors (population and development)

The census in 2023 put Kawerau’s population at 7,610, a 2% increase (2018 census 7,460). Further population projections provided by Statistics New Zealand indicate Kawerau’s projected population in 2033 will be between 8,000 – 8,500. Previous projections had the population declining after a couple of years of small growth. However, due to a number of factors including: the impact of COVID-19, increased cost of housing in other centres, more job opportunities (in the wider area) and ongoing economic development initiatives, the population is projected to continue to have a small rise for at least the next 12 years.

Council remains optimistic of the future growth potential within the district. The recent Local Government Commission’s decision to approve a boundary reorganisation has unlocked new land for industrial development, a Council housing development project progresses positively, new industrial investment enquiries continue and all boost confidence for growth and increasing the rating base.

Also, the lower cost of living and increased quality of life when compared to living in larger centres, are other reasons why the district will continue to be a desirable place to live.

The existing infrastructural network has capacity for a District population of at least 10,000. Growth is monitored to determine any potential additional demand on infrastructural services. It is not anticipated that the current level of service will change over the period of the 2025 - 2034 Long Term Plan.

Risk: That the population projections are not correct

Table: Population of Kawerau District *

Year	Population
2022	7,760
2026	8,266
2028	8,370
2033	8,630
2038	8,760
2043	8,900
2048	8,960
2053	8,971

* Source for 2024 onwards – Population Forecast – MR Cagney BOP Housing needs research – ‘Medium’ assessed projections have been used.

5. Inflation

The forecasts in this Plan have been adjusted for inflation using projections of price level change adjustors specifically for local government by Business and Economic Research Limited (BERL) and are listed in the table below.

Table: Inflation adjusters: Percent change per annum

Year ending	Roading	Property	Water	Energy	Staff	Other
June 2026	3.0%	3.0%	5.6%	5.6%	3.5%	2.7%
June 2027	3.0%	2.9%	5.4%	5.4%	3.3%	2.6%
June 2028	3.0%	2.7%	4.9%	4.9%	2.8%	2.6%
June 2029	2.8%	2.4%	4.6%	4.6%	2.6%	2.2%
June 2030	2.7%	2.4%	4.3%	4.3%	2.4%	2.1%
June 2031	2.4%	2.2%	3.3%	3.3%	2.2%	2.1%
June 2032	2.4%	2.2%	3.0%	3.0%	2.1%	2.0%
June 2033	2.4%	2.1%	2.4%	2.4%	2.0%	2.0%
June 2034	2.3%	2.1%	2.3%	2.3%	1.9%	1.9%

Source: BERL Oct 2024

Risk: That the actual inflation adjusters are different to what is projected

Likelihood: Medium

Impact: Low. Inflation assumptions are reviewed each year and Council will amend its budgets as part of preparing each annual plan if required to reflect the impact of inflation movements. Council has used data from BERL, a reputable experienced Local Government provider. However, with a changing global economy, it is difficult to judge the inflationary impacts that will occur.

6. New Zealand Transport Agency (NZTA) Subsidy Rates

NZTA contributes significantly to the costs of maintaining and renewing roads. The assumption has been made that when roads are due for renewal, NZTA will contribute towards the cost on the currently agreed rates.

The agreed subsidy rates are:

Financial Assistance Rate	%
1 July 2025 to 30 June 2026	75%
1 July 2026 to 30 June 2027	75%

For the purposes of providing estimates this subsidy rate has been used. The budgeted land transport subsidies for the period of this plan are outlined in the table below:

Table: Budgeted land transport

2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
608,700	608,700	1,111,443	1,138,895	1,167,500	1,250,663	1,280,215	1,310,775	1,397,985

Risk: Reduction in subsidy rate

Likelihood:

Low for the next two years as (recently reviewed by NZTA). Thereafter the risk is considered moderate, as dependent on the funds that will be available.

Impact: See table below

Sensitivity in subsidy revenue to a 5% change in subsidy rates

The following table shows the impact to revenue if there is a 5% change in the subsidy rates:

2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
40,580	40,580	74,096	75,926	77,833	83,378	85,348	87,385	93,199

Council would continue the existing level of service if the subsidy rate was reduced by up to 5%. The shortfall would be funded from rates, which would add up to a further 0.3% increase to Council's rates for 2025/26.

If NZTA stopped subsidising roading entirely, Council would need to consult with the community about different service levels and the costs of maintaining roads at those different levels. If the projected subsidy for 2025/26 had to be funded from rates, this would add a further 4.2% to total rates and up to 7.2% in 2033/34. Council considers this to be unlikely.

7. New Zealand Transport Agency (NZTA) Funding for Stormwater

NZTA up until 30 June 2024 contributed towards the cost of stormwater operating and capital costs, on the basis that this activity is solely to address stormwater that comes from the roads and also impacts the roading network. From 1 July 2024 onwards NZTA will no longer subsidise capital expenditure for stormwater, however NZTA will continue to provide subsidy on operational expenditure at the same

subsidy rate as roading of 75%. This funding is confirmed for the three year period to 30 June 2027.

The assumption has been made for the Long Term Plan that NZTA will continue to fund the operational costs at the same rate of 75%.

For the purposes of providing estimates, this subsidy rate has been used.

The budgeted stormwater subsidies for the period of this plan are outlined in the table below:

2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/23	2033/34
39,000	31,500	23,950	24,610	25,270	25,880	26,500	27,140	27,750

Risk: NZTA will cease providing subsidy for stormwater costs

Likelihood: Low for next two years, medium for long term as NZTA will review for the period 1 July 2027 onwards.

Impact: If NZTA remove the subsidy from 1 July 2027 onwards, Council would consult with the community regarding rating for this additional cost. The cost on rates equates to 0.1% so not a significant impact.

8. Expected Interest Rates on Borrowing

During the period of the Long Term Plan Council anticipates it will raise \$6 million in additional external loans (\$6 million as at 30 June 2025) for water pipe renewals and has included the cost of this borrowing in the estimates.

Council has also established reserves to fund renewal. Internal borrowing is used for new capital works or for renewals where there are insufficient reserve funds available. The primary objective of funding internally is to use reserves efficiently and create operational savings by eliminating the interest rate margin between investments and borrowing externally. The parameters applying to Council's internal loans are:

- The term will be determined after considering the useful life of the new capital project and the availability of reserve funds over the anticipated term of the internal loan.
- Principal amounts are repaid in monthly instalments. Amounts are agreed upon at the commencement of the loan and determined on a table mortgage basis.
- Interest is charged to the activity centre based upon the average rate of Council's investments on the date it resolves to lend internally.
- Council has the ability to reset interest rates annually during the preparation of the Long Term Plan or Annual Plan

It is anticipated that external borrowing will be done through Local Government Funding Agency (LGFA), and internal borrowing will be from Council's depreciation reserves. The expected interest rates on internal borrowing is forecasted interest rates for investments and the interest rate for external borrowing is the rate which LGFA is currently lending funds. The table below shows the respective interest rates:

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Interest rate (external)	6.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Borrowing (\$)	8,000,000	10,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000

Risk: Change in rate

Likelihood: Medium

Impact: See table below

Sensitivity in interest expense to a 1% change in interest rates (external)

	2025/26	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
80,0000	100,000	100,000	120,000	120,000	120,000	120,000	120,000	120,000

NB There is no risk to a change in the interest rate for internal borrowing as this is set by Council

9. Climate Change and Natural Disasters

NiWA's climate change projections for New Zealand projects the following for the Bay of Plenty Region:

- the projected Bay of Plenty temperature changes increase with time, and future annual average warming spans a wide range, 0.5-1.0°C by 2040, and 1.0-3.5°C by 2090;
- the area closest to the East Cape warms the least, with annual warming of 1.5-2.0°C compared with 2.5-3.5°C for most of the region under RCP8.5 by 2090;
- the average number of hot days and extreme hot days is expected to increase with time and scenario, with the largest increase in the central part of the region and the least increase in the eastern hill country;
- the number of frost days is expected to decrease throughout the region, with the largest decreases expected in inland areas;
- the number of heavy rain days (i.e. days where the total precipitation exceeds 25mm) is projected to see little change for most of the Bay of Plenty region by 2040. By 2090, reductions in heavy rain days are projected for the Raukumara Ranges in particular, with small reductions across most of the region;
- extreme, rare rainfall events are projected to become more severe;
- drought potential is projected to increase across the Bay of Plenty;
- annual mean wind speed is projected to slightly decrease in the Bay of Plenty, but there is a mixed direction of change for different seasons.

These projections aren't dissimilar to the climate change data that international and national bodies have produced since the previous LTP. Council considers how the latest climate change data and projections may affect the integrity of the LTP; the services council has to carry out, and Kawerau district in the future.

Council acknowledges that extreme weather events are likely to occur over the period of the Long Term Plan. However, it is anticipated that the district's infrastructure has sufficient capacity to cope with the changing weather patterns and there will be minimal risk of significant costs or changes to levels of service arising from these weather events.

The planned costs included in this plan exclude any possible financial implications of natural disasters.

Risk: There is a risk that the predictions on climate change as provided by the International Panel on Climate Change and the MfE are over or under estimated. There is also a risk the impacts of climate change for Council activities will be more significant than planned for. It is unlikely the risk will be lower than planned for.

Likelihood: Moderate

Impact: Where the impacts of climate change have a potential implication for Council services, options for adaptation will be identified and a planned programme will be prepared.

Council for 2024/25 budgeted and incurred capital works expenditure to determine engineering works required for the high water table levels in Hardie Ave, which are impacting roading infrastructure. This is the first capital works that could be attributed to the change in weather events, due to the high water table levels. Where there is particular concern for immediate remediation work with regards to Climate Change these will be identified and work planned. However, at this stage there are no immediate plans, other than the Hardie Ave project which

is underway. It is likely that any additional operating and capital expenditure will possibly be required outside the nine year life of this plan. As Climate Change is likely to be gradual, the impacts will be longer term than the current plan. We will need to balance the needs and expectations of our community so it is able to finance the forecast costs for addressing climate change.

At this stage, assessing the financial implications of adapting to the effects of climate change is ongoing. They will be refined in subsequent plans as investigations are progressed.

Insurance

Council has assumed that it will be able to obtain insurance cover for all existing policies (which includes cover for assets that are damaged due to severe weather events) over the period of this Plan and that the cost will be similar, plus inflation.

Risk: That an extreme weather event causes significant damage.

Likelihood: Medium

Impact: Could be significant. Council has put in place all reasonable mitigations to reduce the impact of natural disasters.

10. Societal Changes

It is acknowledged that there will be some minor societal changes over the period of the Long Term Plan. As with the rest of the country the district's population will be getting progressively older and more people will be receiving some form of government benefit. However, Council has assumed that there will not be a significant change to the makeup of the district's population over the period of the Plan, and therefore has not made any provision for additional (or reduced) services.

Risk: That there will be a significant change in the societal makeup of the district requiring different Council services.

Likelihood: Low

Impact: Minimal. Most of the current council services will still be required even if there was a significant societal change.

11. Resource Consents

During the period of the Long Term Plan 2025 – 2034, Council will be renewing the resource consents that it holds for: disposing of waste onto land (Rapid Infiltration Basins), taking water for the purpose of providing drinking water to residents, taking water from the Tarawera River to irrigate sports fields, taking water from the Ruruanga Stream for the irrigation of sports fields and taking and discharging geothermal steam into the Ruruanga Stream for heating the swimming pool.

Council has anticipated that all these consents will be renewed, as to date there has been no indication to the contrary. Also all estimated costs associated with the renewing of these consents and any subsequent conditions for Council that are reasonably anticipated, are included in the figures of the Long Term Plan.

Risk: Resource consents may not be granted or require additional conditions to be met, which will increase the associated costs.

Likelihood: Low

Impact: Council would look at realistic alternatives if consents are not issued or there are costly conditions to be met.

12. Emissions Trading Scheme (ETS)

Council does not own forestry and does not participate in the emissions trading scheme. Council does not operate a landfill, as this was closed in

2006. While Council does have an on-going liability for the maintenance and monitoring of the closed landfill, there are no Emission Trading Scheme cost implications which Council needs to recognise. Council pays an Emissions Trading Scheme fee for the disposal of its waste at Tirohia which is included in the estimates for solid waste disposal.

Risk: That there will be future emissions costs for Council

Likelihood: Low

Impact: Council would need to consider how best to reduce any likely future emissions costs should this occur.

13. External Funding Assumptions

Council has included in the Long Term Plan all significant estimated external funds and the corresponding expenditure when it is considered reasonably certain that Council will receive these funds. Where Council is less than reasonably certain of receiving external funds, the revenue has not been included in the Long Term Plan and the expenditure is only included if Council is prepared to fund the project in total.

Risk: That budgeted external funds are not received.

Likelihood: Medium

Impact: Council would reduce the corresponding expenditure accordingly or consider funding the shortfall from other sources.

14. Significant Ratepayers

There are large Industrial ratepayers within the Kawerau District, who contribute significantly to the total rates of Council. Council has assumed for the purposes of preparing the Long Term Plan that all large Industrial ratepayers will continue to operate over the period of the Long Term Plan

and their values will not change significantly relative to other property values.

Risk: That one or more significant ratepayers closes.

Likelihood: Medium

Impact: Council would need to consider the impact to other ratepayers and whether to reduce services.

15. Council Collaboration

Council is a shareholder in Bay of Plenty Local Authority Shared Services (BOPLASS). BOPLASS has managed to achieve a number of significant savings for members through collaborative procurement projects including: insurance, printing and copying, telecommunications, courier service costs and others. Council has included the lower cost estimates in the Long Term Plan that have resulted from these procurement projects as it is anticipated that these cost savings will continue when new contracts are negotiated.

Risk: That cost savings previously achieved do not continue.

Likelihood: Low

Impact: There would be additional costs for these shared services, but these are not a large portion of Council's total costs.

16. Quality of Asset Data

Council has been undertaking water reticulation renewals which has provided quality data on the quality and life of the new assets. This renewals project is to continue for the next four years.

Council's stormwater, water supply and wastewater reticulation networks have been divided into zones based on the estimated average date at which each zone was developed. Renewal/replacement of reticulation for

each zone is averaged over ten years (apart from water which will be done over a period of 6 years). This allows for the spread of installation dates and different rates of deterioration. Replacement decisions are based on information including the condition, reliability and maintenance of the asset as well as age.

Risk: That the asset data is incorrect, and the consequential planned renewals are not correct.

Likelihood: High - Council has only undertaken minimal samples of pipes to date but further investigations are planned.

Impact: Infrastructure may either be replaced before the end of its useful life or need replacement earlier than programmed. This could result in additional costs for residents.

17. Capital expenditure delivery

The nine-year budget has been developed based on the best available information on the likely timing of capital projects and programmes. The completion of capital projects is impacted by the availability of contractors, as capital works are completed by external contractors. In recent years the impact of Covid 19, with increasing costs, materials availability and staffing shortages all contributed to a reduction in the level of capital projects delivered by Council. For the 2023/24 financial year Council completed 73% of major capital projects (prior years comparative 2022/23 = 41%, 2021/22 = 50% and 2020/21 = 86%), which is a return to the expected levels of capital expenditure delivery.

Risk: That the actual timing of the capital programme is different from that forecasted.

Likelihood: Medium

Impact: The financial implications would depend on planned funding sources for the relevant capital expenditure and its associated expenses. The financial impact would therefore

be on funding requirements, borrowings, interest expense, depreciation expense and consequential operating costs. Other areas such as the market's response to the increased programme certainty and any potential further Covid-19 lockdowns are beyond our control.

18. Local Government Reforms (excluding three water reforms)

The Government has signalled that as well as the Local Water Done Well reforms, it will also be undertaking a comprehensive review of Local Government, including the priority of getting back to basics, so there could be potential changes. The review into the Future of Local Governments also proposed recommendations that the Government is yet to consider.

The are no definitive statements concerning these reforms, other than the Local Water Done Well. The Long Term Plan has been prepared on the basis that existing services and activities will continue to be provided by Council (business as usual), due to the uncertainties of any of the potential legislative changes. The changes regarding the Local Water Done Well reforms are detailed in a separate point below. Any future changes to legislation will be incorporated into Council's operations as and when required.

Risk: Local Government reforms result in Council providing reduced/different activities which could require changes in resources and costs.

Likelihood: Low in terms of any immediate impact, as any changes would take some time and consultation before being implemented, except for the Local Water Done Well reforms which are discussed separately below.

Impact: Any impact to Council will depend on the extent of legislative change brought about by these reforms. At this time, it is difficult to speculate what these impacts might be.

Council will seek to comply with all legislation prudently and for the community's best interest.

19. Local Water Done Well Reforms

The Government has introduced the new Local Water Done Well legislation. The new Water Services Preliminary Arrangement Act requires Council to develop a Water Service Delivery Plan (WSDP) for Kawerau's delivery of water, wastewater and stormwater activities. Council is in the process of completing the WSDP, which is due for completion by early September 2025, which is following the adoption of this Long Term Plan.

The Long Term Plan anticipates that Council will continue to own and maintain all water, wastewater and stormwater (3 Waters) infrastructure assets and will deliver these services, and essentially continue business as usual. However, the business structure that delivers these services may change for the next Long Term Plan being 2027 to 2037, whereby the structure of delivery may be via an in-house business unit or a regional Council Controlled Organisation (CCO).

The Local Water Done Well legislation also introduces the requirement of an Economic Regulator with pricing and possibly new water quality standards that will be monitored by the Commerce Commission. The requirements of the Economic Regulator are still unknown; therefore this assumption has a high level of uncertainty.

Council has no control over the legislative changes the Government is making with regards to delivery of three waters, however Council will ensure compliance with all requirements, with the priority of delivery of these essential services to the community. The full extent and scale of the changes are still unknown; therefore it is difficult to determine and quantify the financial impacts on Council's operational expenditure, revenue, capital expenditure or debt levels.

Risk: The Local Water Done Well reforms may significantly change the way the three waters services are delivered and funded, with the potential that this change could result

in significant funding and resourcing implications for the rest of the Council.

Likelihood: High

Impact: As at 30 June 2024 the Annual rates revenue collected to maintain and renew the Water \$1.4m, Wastewater \$1.68m and Stormwater \$67k. The carrying value of Council's three waters assets as at 30 June 2024 was Water \$15.96m, Wastewater \$14.33m and Stormwater \$5.97m.

Any impact to Council will depend on the extent of change brought about by these reforms. At this time, it is difficult to speculate what these impacts might be.

20. Possible Impact of Future Legislative Reforms

There are currently a number of legislative reviews underway, including the Resource Management Act, Building Act, Civil Defence Emergency Management Act and Health and Safety Act. As these legislative reviews are still underway, there are no specific details of the impacts and changes they may have on the delivery of Council's services.

The are no definitive statements concerning these possible legislative changes, other than the Local Water Done Well. The Long Term Plan has been prepared on the basis that existing services and activities will continue to be provided by Council (business as usual), due to the uncertainties of any of the potential legislative changes. Any future changes to legislation will be incorporated into Council's operations as and when required.

Risk: That there are significant changes to the legislation that will cause Council to incur additional costs.

Likelihood: High as there are a significant number of legislative reviews underway. However, low impact for the immediate Long Term Plan for years 1 to 3, as legislative changes take time to process.

Impact: Any impact to Council will depend on the extent of legislative changes brought about by the legislation reviews. At this time, it is difficult to speculate what these impacts might be. Council will seek to comply with all legislation prudently and for the community's best interest.

Financial Strategy

Introduction

Council has prepared this Long Term Plan on the basis that it needs to be financially sustainable, while meeting the needs of residents. The Financial Strategy details the underlying principles and approach for the next nine years as Council delivers services to the community in a financially prudent and sustainable manner. Balancing delivering the same levels of service, the needs of the community and keeping rates affordable are the key priorities.

Background

The census in 2023 put Kawerau's population at 7,610 a 2% increase (2018 census 7,460). Further population projections provided by Statistics New Zealand indicate Kawerau's projected population in 2033 will be between 8,000 – 8,500. The existing infrastructural network has capacity for a District population of at least 10,000. Growth is monitored to determine any potential additional demand on infrastructural services. It is not anticipated that the current levels of service will change over the period of the 2025 - 2034 Long Term Plan.

Over the last three years Council has been investing in asset renewals of the water reticulation systems of the district. For the first time in many years Council has uplifted loans to fund this capital renewal project. As at 30 June 2025 Council will have \$6m in debt, a relatively low debt level, which does give Council capacity to borrow should the need arise.

Council to assist in residential development within the District, is progressing the subdivision at Stoneham Park, which will provide additional housing for the community, while also increasing Council's rating database in the next six years.

There continues to be private industrial land available to further expand the industrial hub that Kawerau is known for, which includes the

opportunities provided by the natural resources available and proximity to markets.

The priorities for the next nine years are for Council to maintain and continue the current levels of service, maintain Council's assets and complete capital infrastructure projects.

Prudent Financial Management – Balanced Budget Requirement

Council is required under the Local Government Act 2002 to ensure that each year's projected operating revenues are set at a level to meet each year's operating costs. However, Council may set projected operating revenue at a different level if it believes that it is financially prudent to do so.

Council is further required to manage its revenues, expenses, assets, liabilities, investments and general dealings in a prudent manner which promotes the current and future interests of the community. In assessing a financially prudent position, consideration is given to:

- the estimated cost of maintaining the predicted levels of service contained in the Long Term Plan, including the cost of maintaining the service capacity and integrity of assets throughout their useful life and the revenue available to fund the cost of delivering services.
- equitable funding for the provision and maintenance of assets throughout their useful life.

Council's infrastructure assets significantly increased in value following the revaluation in June 2022. From this Council's depreciation expenditure has also risen. Council's balancing of the budget is impacted by the funding of depreciation, which in recent years has impacted the rates requirement. This has resulted in Council reducing the level of depreciation funding to ensure rates affordability for the community. This is further detailed under Council's funding and financial policies.

Council's Funding and Financial Policies

Since 1998/99 Council has funded the annual depreciation expense of assets apart from the depreciation on non-critical assets. The specific buildings (non-critical) involved are: Town Hall, Concert Chamber, Ron Hardie Recreation Centre, Library/Museum Building, Museum/Archives Building, District Office, Council Depot, Tarawera Park Amenity Buildings, Swimming Pool, Pensioner Housing units and the Bert Hamilton Hall. Council also decided to not fully fund depreciation on roads subject to New Zealand Transport Agency (NZTA) subsidies.

These buildings remain non-critical and in addition, the level of utilisation for public halls in many cases is significantly below total capacity. As a result, the assets are not likely to be replaced in their present form or they may be replaced with rented accommodation or buildings funded by way of loans or grants.

Council has continued to support and confirm the 1998/99 decision and will continue the policy of not funding non-critical, non-strategic assets. Council believes the reasons for doing so have not changed and that the policy is appropriate for the Kawerau District.

The benefit of not funding depreciation on non-critical assets is that ratepayers are not paying for depreciation on assets which are unlikely to be replaced with buildings of equivalent value.

The benefit of not funding the portion of depreciation for assets which Council expects NZTA subsidies to fund, is that ratepayers are not funding depreciation which is unlikely to be needed.

The NZTA subsidy rate has recently been confirmed that the rates for Kawerau will be 75% for 2024 – 2027. Therefore, Council considers the risk of the subsidy rate being decreased to be low, for the period of this Long Term Plan. The subsidy rates for roading projects have been confirmed by NZTA for the next two years and this is reflected in the roading financial forecasts. Should any unforeseen changes to the

subsidy rate occur, Council would look at alternative funding options such as rates and loans.

In 2023/24 Council resolved to fund 65% of depreciation for all other assets, due to the uncertainty over the then Government's 3 waters reforms and due to the need to make rates affordable for the community. With the revaluation of Council's assets increasing depreciation and the inflationary impacts increasing the rates requirement, the depreciation funding levels were key to rates affordability. Council intends to gradually start increasing the funding of depreciation annually by 3% from 2026/27 (year 2 of the LTP). The funding of depreciation will be consulted with the community in the Long Term Plan Consultation Document.

Council is aware of the impact of not fully funding depreciation has on the balanced budget which is discussed further under the "Prudent Financial Management - Balanced Budget Requirement".

Delivery of three waters

The Financial Strategy anticipates that Council will continue to deliver drinking water, wastewater and stormwater services for the period of the strategy and is prepared on the basis that delivery of these services will be by an in-house business unit. However, this service delivery option is still to be consulted on with the community and is yet to be confirmed as part of the Local Water Done Well legislative changes.

There are still uncertainties regarding the full impacts and requirements the Local Water Done Well legislation, will have on the delivery of three waters. One certainty is that Councils will continue to have overall ownership and control over the three waters service delivery. Council has prepared the Long Term Plan on the basis that the three waters services will continue to be delivered by Council for the nine year period.

Therefore, with the Local Water Done Well legislation impacts, there is a level of uncertainty (and therefore risk) with the structure of water service delivery and how this is funded.

Table: Estimated lives of non-critical assets

Building	Year Built	Gross Replacement Cost 2022 (\$)	Expected Life	End of Life
District Office	1960	5,060,000	80	2040
Town Hall	1960	4,610,000	85	2045
Concert Chamber	1953	1,540,000	85	2040
Library/Museum	1953-2008	2,360,000	85	2040
Tarawera Park Amenity Building	1985	1,380,000	75	2060
Recreation Centre	1969-1999	6,950,000	70	2040
Swimming Pool (Buildings)	1970-2023	3,263,000	50-75	2035-75
Building	Year Built	Gross Replacement Cost 2022 (\$)	Expected Life	End of Life
Depot	1955-60	1,324,000	70-75	2030
Pensioner Housing/BH Hall	1965-1984	4,475,000	70-90	2055
Museum/Archives Building (16-18, Jellicoe Court)	1955	880,000	95	2050

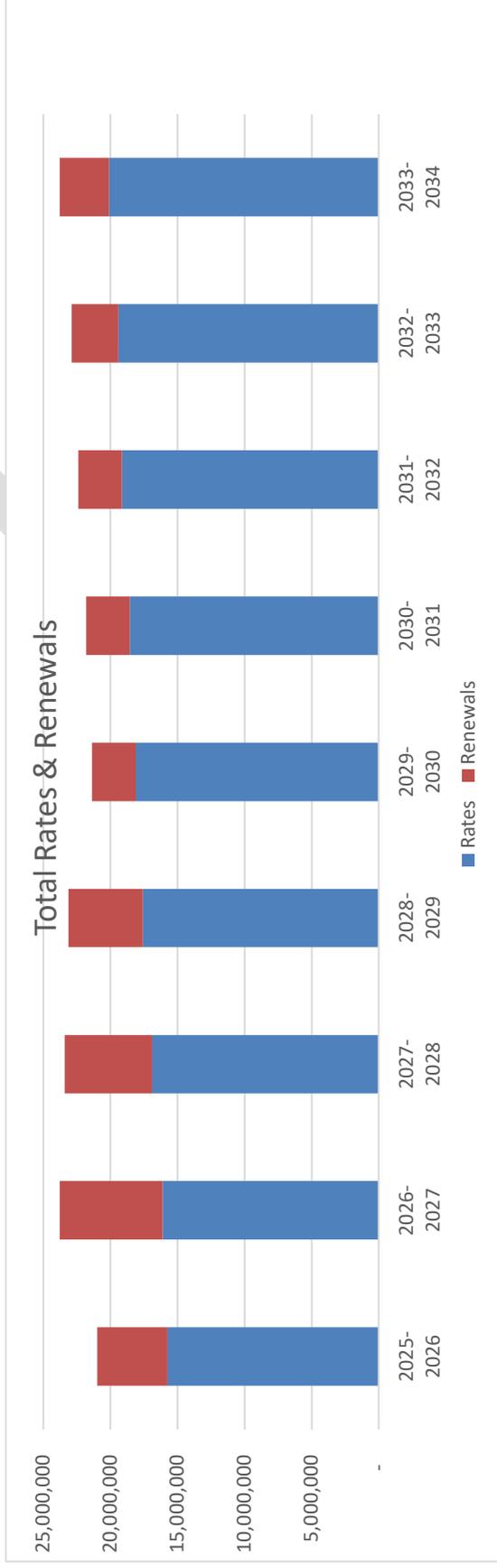
Table: Budgeted non-funded depreciation by Activity

Asset	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Economic Development	\$216,980	\$214,960	\$229,970	\$227,890	\$225,790	\$238,690	\$236,540	\$234,380	\$246,860
Roading *	\$978,420	\$974,380	\$1,054,760	\$1,049,950	\$1,044,800	\$1,119,530	\$1,113,630	\$1,107,430	\$1,178,530
Stormwater	\$192,000	\$144,000	\$104,950	\$90,950	\$80,460	\$75,620	\$64,280	\$52,930	\$44,600
Water	\$245,800	\$237,490	\$246,420	\$228,320	\$202,460	\$192,390	\$163,850	\$135,480	\$114,840
Wastewater	\$234,500	\$214,400	\$215,140	\$192,880	\$170,630	\$161,840	\$137,560	\$113,290	\$95,850
Solid Waste	\$6,200	\$5,660	\$5,680	\$5,100	\$4,500	\$4,280	\$3,640	\$2,990	\$2,530
Leisure & Recreation	\$210,410	\$187,600	\$186,440	\$170,460	\$159,680	\$155,440	\$143,620	\$131,440	\$124,700
Total	\$2,084,310	\$1,978,490	\$2,043,360	\$1,965,550	\$1,888,320	\$1,947,790	\$1,863,120	\$1,777,930	\$1,807,910

* Subsidised roading with 75% subsidy is not fully funded.

The following graph shows the trend for rates and asset renewal expenditure which are the key financial aspects of this plan. Inflationary figures have been provided by BERL. See significant forecasting assumptions, which are included in all figures in the Long Term Plan.

Projected rates and asset renewals 2025 – 2034



Council is forecasting its operating expenditure to increase from \$21,069,520 to \$25,840,040 between 2025 and June 2034. These increases are as a result of:

Price increases

Inflation and the factors that influence inflation will increase the cost of doing business.

Depreciation and interest payments

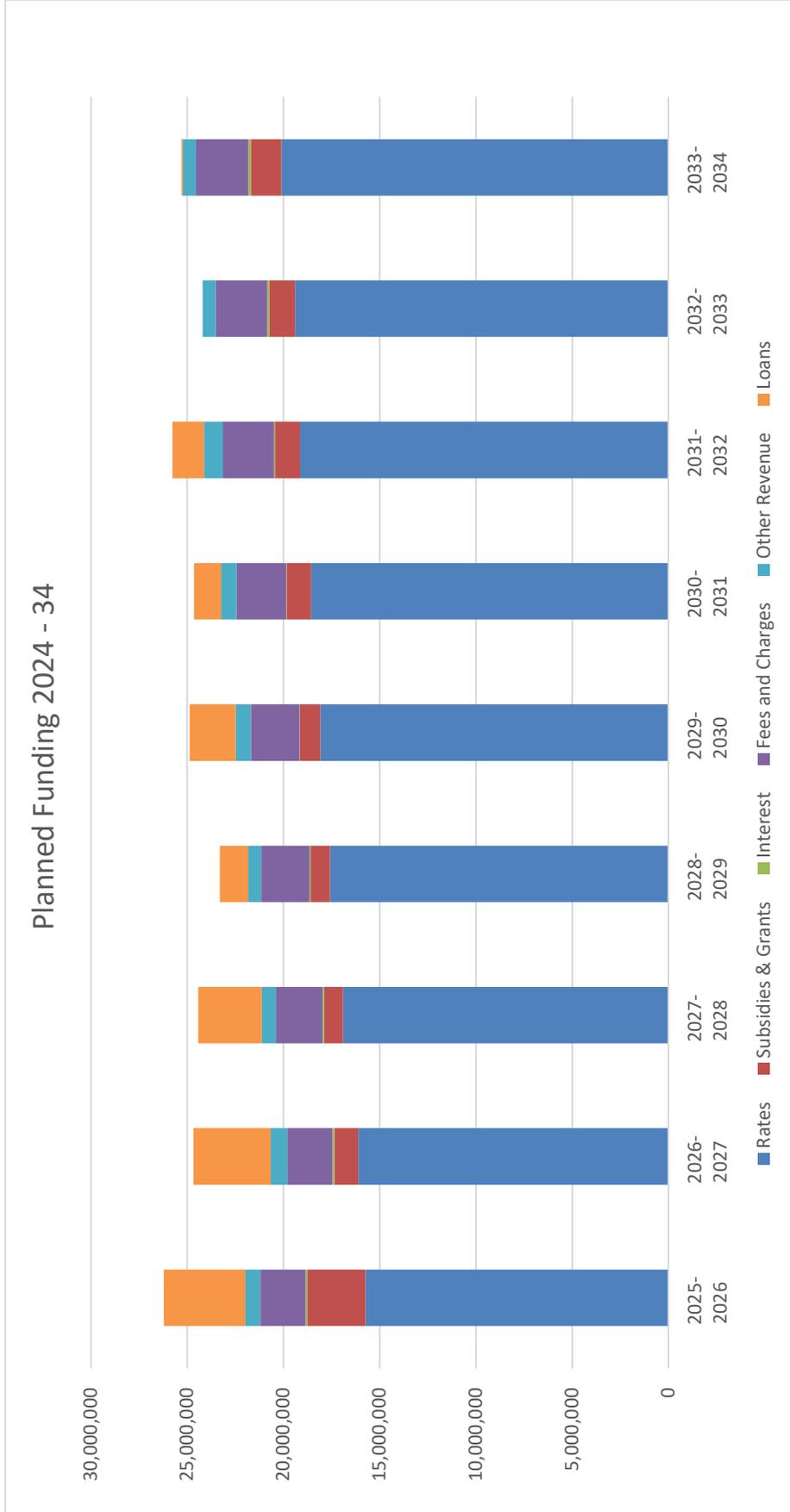
The increased capital expenditure programme means corresponding increases in costs in these areas, especially as Council will be borrowing an additional \$6.0 million over the next nine years

Service level increases

There are no increases in the levels of service for activities.

Council has adopted strategies to ensure that over the period of the Long Term Plan, Council continues to be financially sustainable.

Planned funding for 2025 - 2034



Rates and Rates Increase

The Long Term Plan includes a rates increase of 8.5 percent for 2025/26 and between 1.4 and 4.9 percent for each of the following eight years. Contributing to the increase in the next three years in particular is the increased debt servicing costs for the loan funded water reticulation renewals. Council has endeavoured to keep rates increases to affordable levels over the period, while also ensuring its costs are funded and finances are prudently managed.

Council charges a general rate to every rateable property and a Uniform Annual General Charge to every separately used or inhabited part of a property. The general rate charge is different for residential and commercial/industrial properties. This recognises the different levels of services provided to the two categories of property.

Council also charges targeted rates for the following services:

- Water supply
- Wastewater disposal
- Refuse collection

The rateable values of all properties in the district are reviewed three-yearly. The last revaluation was conducted in August 2024, and the next will be in 2027. After the next district revaluation Council will undertake a full review of its rating policy to ensure that the rates charged to individual properties are fair and reasonable.

While there is still uncertainty regarding the delivery and funding of water, wastewater and stormwater (three waters) with the new Local Water Done Well legislation, these activities are included in the Long Term Plan as Council delivered services. The Long Term Plan also accounts for a gradual increase in targeted rates for water and wastewater, while reducing the levels of the general rate that fund these waters activities. The Local Water Done Well legislation requires ring-fencing and transparency with regards to all three waters expenditure and revenue.

What is a Reasonable Level of Rates?

When setting rates, Council must consider what is affordable for both Council and the community. Council also needs to take into account the range of services that are delivered and whether the costs should be paid for by current or future ratepayers (referred to as 'intergenerational equity'). This is particularly important given that many of Council assets have long service lives and provide benefits over a long period of time.

In assessing the appropriate level of funding, Council has to consider the following:

- Are there sufficient revenues to cover all expenses?
- Is revenue set at a level that will enable Council to undertake an ongoing asset renewal and replacement programme?
- Are rates and fees affordable for the community?
- Have the needs of current and future ratepayers been considered?
- And finally, does Council have a balanced budget overall?

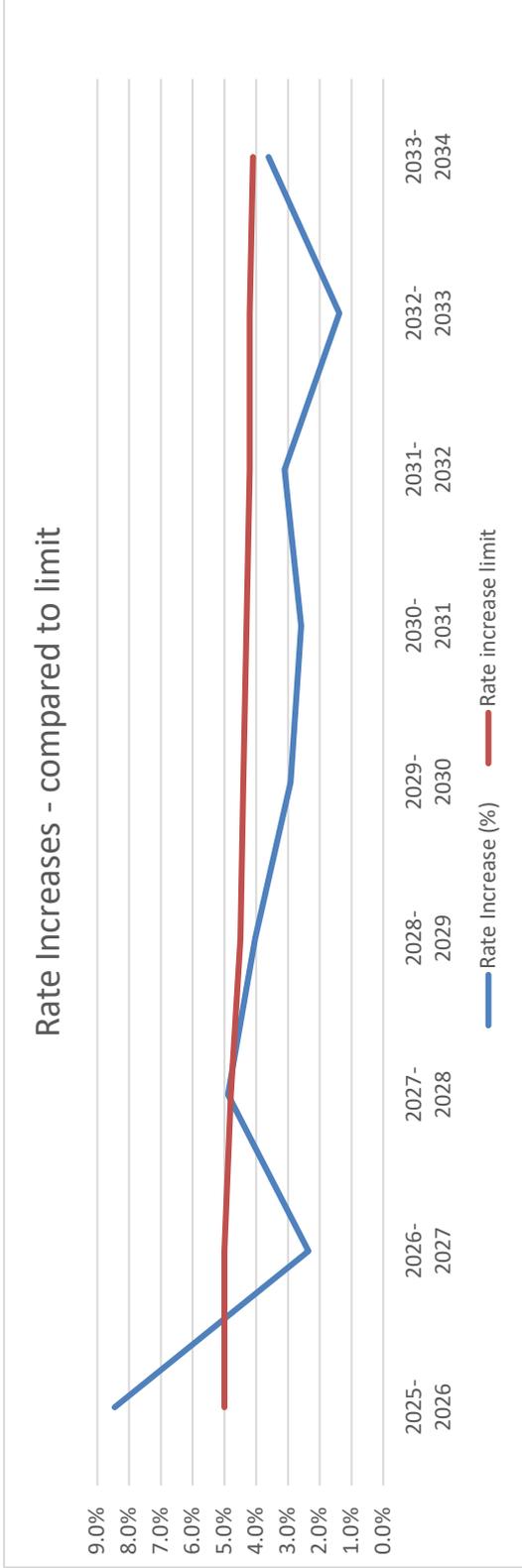
After taking the above factors into consideration, Council has determined the quantum of rates for the next nine years. The increases are between 1.4 to 8.5 percent.

Council has set the following limits for rates for the period of the Long Term Plan:

1. Total rates will not exceed 88 percent of total budgeted revenue.
2. The total rate increase (excluding rates penalties) in any one year will not exceed the underlying rate of inflation for Council costs plus 2 percent.

The table below shows the budgeted rates increases for the next nine years. While the rate increase for 2025/26 is 8.5%, the rate increases for the following 8 years are either below or close to the rate increase limit. Council believes that these rate increases are affordable for the community.

Rate increases for next nine years (compared to limit)



2025/26 Rates charges

CV = \$435,000*	\$
UAGC	900
General Rate	2,124
Water Supply	130
Wastewater Charge	219
Refuse	302
Total	3,675

*2024 Valuation

Contribution to Council activities

Activity Group	\$
Democracy	202
Economic Development	245
Environmental Services	293
Roading	263
Stormwater	27
Water Supply	463
Wastewater & Solid Waste	1,151
Leisure & Recreation	1,020
Vandalism & Graffiti	11
Total	3,675

Debt and Issuing Securities

As at 30 June 2025, Council will have loans totalling \$6.0 million (for water pipe renewal) as well as finance leases for funding the office telephones and photocopiers. Council also has internal loans, funded from depreciation reserves, which totals approximately \$1.5 million. The interest rate for the internal loans is determined annually based on investment rates.

Council is intending to borrow a further \$6.0 million over the next three years to complete the replacement water pipes which began in 2022.

Council's limit on borrowings for the period of this Long Term Plan is "total debt won't exceed 50% of Council's fixed assets or that the interest expense won't exceed 10% of total annual revenue". Council's projected borrowing is well within these limits. The security for any external loan raised will be over future rates.

Financial and Equity Security Investments

It is anticipated that at 30 June 2025, Council will have cash totalling \$3.5 million (including short term deposits). These funds are both general funds and depreciation reserves which will be used to fund programmed asset renewal. These assets are critical to enabling Council to continue to provide current levels of service.

Interest earned on invested depreciation reserves is credited to the depreciation reserve account, so that sufficient funds are available when the assets require renewing.

Council also invests surplus general funds at various times throughout the year. The interest earned is used to reduce the amount required for rates. Council has budgeted to earn \$85k in interest for 2025/26.

Council invests funds in accordance with its investment policy. This stipulates where funds can be invested and limits the amount which can be invested in a single institution. The anticipated average return is 2.28% per annum, over the nine years, ranging from 1.9% to 2.7%.

Council also holds equity securities in Civic Assurance (31,161 shares) and BOPCLASS Ltd (5,091 shares). The reasons for holding shares in these organisations are to allow Council to participate in their operation and to benefit from the advantages of being a shareholder. Also, Council will have \$200k in bonds at 30 June 2025 which is required when borrowing funds from LGFA. Interest is earned from these funds and Council is anticipating it will invest a further \$400k in bonds over the next nine years.

Operating Expenditure

Operating expenditure covers Council's day-to-day services and operations, from collecting rubbish and providing street lighting to maintaining gardens and issuing building consents. The majority of operating expenditure is used for roading, followed by parks and reserves, wastewater and water.

Capital Expenditure

Capital expenditure can be categorised into two categories, renewals being replacement of existing assets and new assets being a service improvement or additional for growth. The key priority in this financial strategy is on renewals, as Council has additional infrastructure capacity within current infrastructure.

Council at 30 June 2024 had non-current assets worth \$111.8 million. It plans during the next nine years to undertake renewals of \$41.9 million. Asset management plans are in place for each asset category. These are key planning tools to ensure maintenance and future renewals are done to meet required levels of service. The Long Term Plan identifies how the planned expenditure will be met.

Council's asset renewal programme assumes that all projects will be completed in the scheduled year. However, a number of factors can cause delays. Renewals that are delayed in one year will be completed in the following year.

Asset renewals are generally funded from depreciation reserves or loans. The depreciation reserves are set at a level to ensure they are adequate for the purpose. This is an important inter-generational issue. Given that both current and future ratepayers benefit from the use of an asset, both should therefore contribute toward the cost of its renewal.

The continuation of the water pipe replacement programme (a further \$9.4 million over the next four years) will be funded from external loans and depreciation reserves. The loans will be repaid over the life of the assets thereby ensuring there is intergenerational equity.

Most roading renewal expenditure receives a New Zealand Transport Agency subsidy. The subsidy rate is 75 percent for the Long Term Plan period 2025 to 2034.

Council has not budgeted for any significant capital projects to provide increased levels of service or catering for growth apart from the development and sale of Council land, particularly the Stoneham Park subdivision. The district has excess capacity in its infrastructure which can accommodate at least the projected level of growth over the next nine years.

Council has asset management plans for: roading, water supply, stormwater and wastewater. Condition assessments have been conducted for these activities.

Asset expenditure by activity group

Year	2025/26 \$	2026/27 \$	2027/28 \$	2028/29 \$	2029/30 \$	2030/31 \$	2031/32 \$	2032/33 \$	2033/34 \$
Economic Development	42,300	12,560	12,910	13,230	13,550	13,840	14,140	14,430	14,710
Roading	543,180	555,030	763,620	774,810	780,520	1,051,210	1,062,620	1,068,220	1,367,310
Stormwater	0	0	0	0	0	0	0	0	0
Water	2,228,840	*3,985,550	2,798,410	2,842,120	211,490	183,110	187,950	386,120	197,170
Waste Management	1,742,400	1,973,790	1,814,150	1,382,680	1,682,030	1,324,710	1,381,410	1,439,050	1,570,250
Leisure & Recreation	392,690	409,280	358,720	232,700	264,430	290,320	295,730	308,190	245,290
Overheads	101,450	552,850	558,700	118,240	91,760	58,100	59,300	60,500	130,840
Plant	157,490	136,280	160,940	139,060	183,020	285,110	204,250	169,180	111,240
Buildings	39,240	41,810	39,360	52,510	45,040	44,430	43,140	48,020	44,940
Total	5,247,590	7,667,150	6,506,810	5,555,350	3,271,840	3,250,830	3,248,540	3,493,710	3,681,750

*Includes \$1,072,400 for improvement to water supply

Uncertainty and Risk

In preparing the Long Term Plan 2025-2034 there are forecasting assumptions made, which are detailed under the Significant Forecasting assumptions section of the Long Term Plan. It is important to read these assumptions in conjunction with the financial strategy.

A particular area of uncertainty is with regards to Local Water Done Well and impacts of the legislative changes regarding water services delivery. The Long Term Plan has been prepared on the basis of Council delivering water services through an in-house business unit.

Changes from LTP 2021 - 2031

There are no significant changes to this Long Term Plan when compared to the Plan for 2021 – 2031.

Other changes made, relate to estimates and assumptions based on revised data. Council has planned for a gradual increase in the targeted rates for water and wastewater services. Also, a 3% increase in the funding of depreciation for Strategic Assets is planned for each year of the LTP.

Infrastructure Strategy

INTRODUCTION

1.1. THE KAWERAU DISTRICT

Kawerau lies in the Eastern Bay of Plenty region, 100 kilometres southeast of Tauranga and 58 kilometres east of Rotorua. An enclave of 22 square kilometres surrounded by the Whakatane District, the Kawerau District is comprised mainly of urban, industrial and commercial land and has a small area of rural land.

Kawerau's natural resources include the Kawerau Geothermal Field, the Tarawera River and natural springs which produce an abundant supply of good quality water. Kawerau's geology is the result of the Mount Tarawera eruption. Soils in the District are ash/pumice, highly porous and although poorly compacted, are able to be compacted with work. The District topography is generally flat to rolling.

Kawerau enjoys hot summers and mild winters. In summer the daily maximum temperature averages 23.7 degrees Celsius and on some days can reach more than 30 degrees Celsius, making Kawerau one of the warmest places in New Zealand.

The Kawerau district estimated population according to the 2023 census is 7,820 which represented a 4.8% increase in population since 2018 (previous census) or around 1% population growth per annum. Census figures show that Kawerau has close to the highest number of people per dwelling in the country, which indicates a shortage of housing for the district.

Stats NZ has projected that the population will remain relatively static for the next 20 years (medium projection scenario) to a total population of just under 8,000 by 2043. However, the growth figure could be higher as Kawerau continues to provide employment opportunities through industrial development and has affordable housing.

Kawerau currently has a higher proportion of older people and a higher proportion of young people when compared to the rest of the country. The population projections show that over the next 15 years (to 2038) the number of young people (under 15) will reduce by 12.7 percent while the people that are over 65 will increase by 46.2 percent.

The unemployment rate in Kawerau is just under 11 percent for 2023 (12% percent in 2018) compared to 3.3 percent for all of New Zealand. This means the Kawerau District has approximately 3 times the national rate for unemployment. One of the main contributors to this higher percentage is the cheaper cost of living in Kawerau and the readily availability of amenities.

Council has based its Infrastructure Strategy on these figures, and is confident that the projected population trends will continue to be positive. Economic development interventions, such as industry clustering facilitating industrial development and employment opportunities in the district and residential developments will continue to provide the opportunity for the district's population to grow.

1.2. PURPOSE OF THE STRATEGY

The overall purpose of the Infrastructure Strategy is to help Council and the community make informed decisions about the major infrastructure decisions and investments, which will need to be made over the next 30 years. This Strategy specifically addresses the Rooding, Stormwater, Water Supply and Wastewater activities. Other activities that have significant assets and infrastructure such as pools and buildings are outside the scope of this document.

The Strategy outlines:

- The key infrastructure issues which must be addressed over the next 30 years.
- The main options for dealing with those issues.

- The implications of those options for residents and businesses in terms of cost and service delivery.
- Council's preferred scenario for managing these issues

This Strategy was developed in conjunction with Council's Financial Strategy (and Long Term Plan), district growth expectations, engineering analyses, and technical information. This feeds directly into the respective activities' asset management plans.

Infrastructure expenditure contributes to the following Community Outcomes:

Services: Council facilities and services are accessible, age-friendly, effective, efficient and affordable, now and for the future.

Development: Council works in partnership with the community and businesses to attract people to visit, live and do business in Kawerau and to enhance economic and employment opportunities for our community.

Activity: Council facilitates a vibrant community life with opportunities for creative, cultural and recreational activities.

For the Kawerau District Council (Council), infrastructure spending equals approximately 42 percent of operating expenditure and is around 80 percent of total capital expenditure for the next 10 years. Expenditure that both maintains the standard of Kawerau's infrastructure and is affordable now and in the future will provide a platform for economic development, contribute to the quality of life for the Kawerau community and help Kawerau remain an attractive place to live and do business.

Council infrastructure has a total value at 30 June 2024 of \$58.7 million and over the next 9 years, \$35.0 million (including inflation) will be spent on renewals and improvements to infrastructure. Over the full 30 year infrastructure strategy period, \$120.6 million (including inflation) is planned to be spent.

1.3. ASSUMPTIONS AND DRIVERS

Developing and maintaining infrastructure and the associated capital expenditure is driven by the following considerations:

- Levels of Service
- Future growth and development of the District
- Additional infrastructure required and increased complexity of infrastructure.
- Replacement options for aging, damaged and failed infrastructure.
- Replacement schedules of existing infrastructure.

These considerations are evaluated by bearing in mind public consultation, engineering analyses, available technical information and other Council strategies (Financial and Service Delivery).

Based on these considerations, adequate capital investment requirements can be developed and included in the long term plans and year investment strategies.

1.3.1. Levels of Service

Based on community feedback from previous LTP consultation, it is assumed that levels of service will remain the same for stormwater and wastewater. There is no increased or reduced demand for service and there is no provision in this strategy for any increase in the level of service for these activities.

The stormwater system is designed to manage rainfall run-off and mitigate surface water flooding. Stormwater is collected almost exclusively from the roading network and channelled through a network of pipes into natural waterways. It currently consists of approximately 31.5 km of stormwater pipes, together with cesspits, manholes, stormwater outfalls, and other components.

There are currently 2,880 properties connected to the wastewater system and services a population of 7,900. It is estimated that the system currently has capacity for a population of around 10,000, and it is not anticipated that the population will exceed that number for the period of this strategy.

Council maintains and operates a water supply network in a manner that is fit for purpose and does not compromise public safety. There are currently 2,910 properties connected to the water supply network and services a population of 7,900. It is estimated that the system currently has capacity for a population in excess of 10,000, but it is not anticipated that the population will exceed that number for the period of this strategy.

For water supply, increases in the levels of service in the previous 10 years were due to central government regulations (chlorination and fluoridation) and were funded externally. Future mandated increases in levels of service are very hard to predict and will most likely be externally funded and are not included in this Infrastructure Strategy. There is an increase in the level of service for water supply in 2026/27, with the construction of a manganese removal plant at a cost of around \$1 million.

The reason Council is installing this plant is to remove the manganese from the water which causes discoloration and potentially affects the taste. This plant will provide an additional usable source for water and therefore increase capacity and resilience.

The community is served by a 43 km roading network (excluding SH 34) as well as 73 km of footpaths and 1,074 streetlights, which provides access to all the properties within the community and enables travel in and around the district. Increases in Levels of Services for roading is to increase mobility access (primarily wheelchair and mobility scooter access) and is included in this Infrastructure Strategy. This also includes operational activities such as removing trees that may damage footpaths and removing lips and falls mechanically.

1.3.2. Future Growth and Development

The current Kawerau District population is estimated to be 8,000 residents. The current infrastructure is sufficient for 10,000 residents. It is not expected that the Kawerau district population growth will exceed 2,000 new residents over the 30 year Infrastructure Strategy period.

New subdivision developments localised infrastructure (roading, reticulation, pumpstations etc.) are all installed and funded by the developers. It is therefore not required to include additional domestic use infrastructure.

Council is undertaking a residential development on Stoneham Park, which when completed will establish around a hundred sections. The development will be done over 5 stages at a total cost of \$12 million to be completed in 2031. The development includes an estimated cost of \$6.0 million in additional infrastructure which, when completed, will be added to Council's assets along with the additional depreciation costs. The breakdown of these costs is not available at this point in time and therefore has not been included in the 2025 – 2034 Long Term Plan.

The reason Council is undertaking this development is to provide additional reasonably priced residential sections for the community. The community has in the past asked Council to provide more affordable housing. Also, recent statistics indicate that Kawerau has one of the highest number of people per residential property. The funding for this development is from subsidy (better off funding) and the sale of sections. The whole development will require approximately 65 section sales to breakeven.

There is interest from heavy and light industry to invest in the district and utilise municipal services and infrastructure. Any industrial or commercial use will require resource and trade waste consents and agreements from Council. The additional burden on the existing infrastructure can therefore be controlled to ensure that the existing infrastructure is sufficient.

Additional infrastructure that may be needed to allow new industries and businesses in the district may then be appropriately planned and funded through developer contributions or external funding when needed.

Therefore, only limited additional infrastructure is included in this Infrastructure Strategy, primarily to support the development of the Putauaki Industrial block (connections to existing reticulation) and connections to the planned Stoneham Park and other small sub-divisions.

1.3.3. Additional and increased complexity of infrastructure

There is currently no additional infrastructure planned for any of the Council activities covered by this Infrastructure Strategy. Additional water supply infrastructure (Fluoridation of the water supply) is funded externally and will be completed before this Strategy period.

Minor improvements and upgrades of the wastewater treatment plant and stormwater outfalls are included in this Strategy.

Additional roading infrastructure will be funded through the New Zealand Transport Agency, and only the Council contributions are included in this Strategy.

1.3.4. Replacement Options

New materials and methods to replace infrastructure are continuously being developed. This Infrastructure Strategy utilises the latest replacement costs to replace aging and failing infrastructure with the latest products and most cost effective installation methods.

It is expected that newer products and methods will be developed, however these products and methods will generally be more cost effective and require less investment. However, at the same time Health & Safety and other regulatory costs are expected to increase. It is not realistic to estimate future cost savings and increases other than inflationary increases.

The financial forecasts for the first ten years of this Strategy have been adjusted for projected inflation rates in the BERL Local Government Cost Index listed in Table 1 below. The financial forecasts for years 11 to 30 have been inflated by year 10 rates.

Table 1: Inflation adjusters

Year ending	Roading	Property	3 Waters	Pipes	Staff	Other
June 2025	3.0%	3.5%	5.9%	3.5%	4.0%	2.9%
June 2026	3.0%	3.0%	5.6%	3.5%	3.5%	2.7%
June 2027	3.0%	2.9%	5.4%	3.5%	3.3%	2.6%
June 2028	3.0%	2.7%	4.9%	3.2%	2.8%	2.6%
June 2029	2.8%	2.4%	4.6%	3.1%	2.6%	2.2%
June 2030	2.7%	2.4%	4.3%	2.9%	2.4%	2.1%
June 2031	2.4%	2.2%	3.3%	2.8%	2.2%	2.1%
June 2032	2.4%	2.2%	3.0%	2.6%	2.1%	2.0%
June 2033	2.4%	2.1%	2.4%	2.5%	2.0%	2.0%
June 2034	2.3%	2.1%	2.3%	2.4%	1.9%	1.9%

1.3.5. Replacement Schedules

The quantity of pipes and valves and other Three Waters infrastructure is recorded in Council's Asset Finda software programme. The data has been taken from as built plans and a high level of verification as to the location of the pipe, diameter, valve and manhole locations has been undertaken. The underlying information about the quantities of the assets is around 95% accurate.

Replacement schedules for reticulation and other Three Waters are based on their installation dates estimated lifetimes.

The roading assets are recorded in the RAMM asset management system. The roading assets are all above ground and are easy to verify.

The condition of the roading assets are evaluated on a regular basis by external contractors and consultants and is well understood. Replacement schedules are based on these condition assessments, New Zealand Transport Agency funding and Council performance indicators and levels of service.

1.3.6. Quality of Data

All roading data is recoded both in Excel spreadsheets as well as in the NZTA mandated RAMM database. A data validation project was undertaken by WSP in 2021 to verify the information contained in the RAMM database. Overall, the data was found to be reliable and therefore management concludes that there is a 99% accuracy of roading asset data.

For stormwater assets all formal asset management financial reporting including valuation is currently held in Excel spreadsheets. This is being migrated into the AssetFinda system. It is estimated by management, following a recent location and verification exercise for cesspits and manholes, that the data for stormwater is 95% accurate.

Similarly, for wastewater assets all formal asset management financial reporting including valuation is currently held in Excel spreadsheets. This is being migrated into the AssetFinda system. Management has concluded that the accuracy of wastewater data is approximately 90% for location, quantity and materials.

For water supply services, management has recently undertaken a significant review of the asset data, which included rezoning the location of the network so as to provide more meaningful data. Overall, it is believed the location, quantity, and materials are 98% accurate, while the diameter of the pipe network is 95% accurate.

1.4. RISK MANAGEMENT

The estimated useful life of each class of Council infrastructure is set out in the Statement of Accounting Policies in the current Long Term Plan.

Overestimating useful lives could lead to earlier than forecasted failure and emergency replacement, which is generally significantly more expensive than planned replacement. This is especially true for critical infrastructure, and hence critical infrastructure is replaced earlier than the expected useful service life.

Underestimating useful life could mean that infrastructure is replaced before it needs to be. This increases the planned capital expenditure and requires higher levels of asset depreciation. Assets that are not critical and have a very low failure consequence are therefore replaced only when there is an observed decline in integrity or if failures are starting to occur.

1.5. INSURANCE

A funding arrangement between central and local government will enable certain infrastructure, such as reticulation systems, to be restored after a natural disaster. The arrangement provides that central government would meet up to 60 percent of the cost and Council the remaining 40 percent. Council has insurance of \$30 million to meet its share of the cost in the event of a disaster.

1.6. FUNDING AND AFFORDABILITY

Council funds the depreciation expense for each activity apart from non-strategic assets and a percentage of depreciation from 2023/24 (to recognise the uncertainty around the 3 waters legislation and to reduce the proposed rate increase). Council has funded depreciation since 1998 and is planning to fully fund the depreciation on its strategic assets by 2037/38. These depreciation funds are set aside in reserves and used to pay for renewals. The exception is the replacement of the water pipes which Council is funding from loans (\$14.0 million). The Long

Term Plan anticipates that Council will have depreciation reserves of approximately \$10.4 million at 30 June 2034 and there will be sufficient reserves during the remaining period of the strategy to fund all the necessary infrastructure renewals.

Council previously made the decision to fund the annual depreciation and set aside the money to pay for future renewals because it believed that it was financially prudent to do so and also ensured that the cost of these assets was spread equitably and affordably over each generation of ratepayers. Similarly borrowing (up to 50 years) will ensure that there is intergenerational equity for the funding of these assets.

The effects of climate change, increasing environmental regulations or the need to improve resilience for earthquakes may require Council to increase its investment in upgrading its infrastructure.

1.7. STRATEGIC ISSUES FOR INFRASTRATURE

1.7.1. Renewal Options and Funding

Kawerau was purpose-built and much of the reticulation infrastructure was constructed over a short period of time. For the previous 70 years, Council's main focus has been on maintenance of these assets. The older infrastructure is nearing the end of their lifetimes and needs to be replaced in the next 30 years. The uniformity in age means that this will occur in large chunks and create expenditure 'spikes'.

Council has adopted a strategy to 'smooth' the renewal of its infrastructure assets. For the stormwater and wastewater infrastructure, Council has divided the reticulation network into six zones based on the estimated average date when each zone was developed. Renewal/replacement expenditure for each zone is averaged over five to ten years. This allows for the spread of renewals and reducing spikes in the renewal schedules. Age is not the only criteria for replacement. Final replacement decisions also include information on the condition, reliability and maintenance of the assets. The cost of these renewals will be funded from reserves.

For the water supply infrastructure, Council has subdivided the network into smaller zones for the purpose of a prioritised replacement programme developed to replace pipes installed prior to 1996, by 2029. The reason for this strategy for water supply is to replace those pipes that have a significant build-up of manganese, which contributes to the discolouration of the water, and also potentially are due for replacement in the next 5 to 15 years. This cost of the water pipe replacement will be funded from loan, as there are insufficient reserves set aside to meet these replacement costs.

Council's overall objective is to maximise the life of the district's infrastructure without compromising service. This reduces the overall cost to the community in the long term.

1.7.2. Legislation Changes

The Local Water Done Well legislation requires councils to review the way water services are delivered to the community. The two options available are:

- Council continues to deliver water services via an in-house business unit
- Water services are delivered via a multi council controlled organisation

Council's preferred option is that water services will be delivered via an in-house business unit and the 2025 – 34 Long Term Plan has been prepared on this basis. This also means the water services assets are retained by Council and are therefore included in this strategy.

There are some minor additional costs to implement this option and also changes to how Council funds these services.

Council has incorporated the costs and the funding changes into the Long Term Plan.

1.8. LINKS TO OTHER STRATEGIC DOCUMENTS

Public infrastructure supports activities that contribute toward the economic, social, cultural and environmental wellbeing of the Community. In addition to the activities' infrastructure discussed in this Strategy, Council owns its public parks, reserves, buildings and facilities. The parts that make up those networks and structures and the tools and equipment used to manage and maintain them, are known as Council's assets.

Every three years Council develops a Long Term Plan which sets out the range and level of services it will provide to meet identified community needs and community outcomes and indicates anticipated expenditure on assets for the next 10 years.

Each year Council adopts an Annual Plan, which contains the budget for council services. Council's ability to deliver services and to do so at a reasonable cost depends on the condition, performance and risk profile of its assets.

In this way, Council's Infrastructure Strategy is closely linked to its Annual Plan and Long Term Plan.

This Infrastructure Strategy was developed in conjunction with the Kawerau District Council Long Term Plan 2025-2034. It will underpin and be integrated into both that document, and the Annual Plans over the next thirty years.



SECTION TWO

2. Roding



2.1. ROADING ASSETS

Roading assets include the road carriageway, street lights, footpaths, kerbs and channels, bridges and culverts as well as street lights and other traffic services. The net value of Council's roading assets at 30 June 2024 is \$22.3 million.

The key components of the roading network is listed in Table 2 below:

Table 2: Key Roding asset components

Population served (2023)	7,820
Length of Roads (kms)	43
Length of Kerbs (kms)	77
Structures: 1 bridge, 6 culverts	7
Street Lights	1,064

The allocated life expectancy of the roading and footpath pavement and other structures is 80 - 100 years based on professional knowledge and local conditions. Small areas in the Kawerau District network failed earlier due to high sub-surface water levels. These have been rebuilt with adequate drainage. It is not expected that any other areas in the district will fail earlier than expected.

The allocated life expectancy of the roading seal is 18 - 20 years in normal areas and 13 years in areas where there is geothermal activity. These life expectancies are based on local experience and NZTA recommendations.

The allocated life expectancy of streetlights is 12 years, although this may increase with the replacement of conventional streetlights with LED lights. Streetlight cabling and poles life expectancy is 30 and 60 years respectively.

In general, roading assets in the district lasts longer than other areas due to lower traffic loading. Areas subject to geothermal activity do decrease faster and have a shortened allocated lifetime.

Expenditure on roading renewals is shown in *Figure 1* below. The current levels of renewals matches the funding provided by NZTA. NZTA currently subsidises roading asset renewals by 75%. The strategy anticipates that renewals will increase progressively from 2034 to maintain the assets in the present condition. However, it is unknown whether NZTA will continue to match this increased expenditure and Council will need to determine whether to meet the shortfall or accept a lower level of service.

The most likely scenario is that NZTA will fund the roading assets renewal at the current level of service in the short and medium term (until 2033). When it is clear what levels NZTA will fund after 2033, a decision may need to be made by Council whether to keep the current level of service at additional ratepayers expense, or lower the level of service.

The footpaths are replaced at a rate of 1.2% of the total network per year. The areas that have most deteriorated are replaced, and not necessarily according to their age. This strategy proposes to increase the footpath replacement to 2.1% per year at 2034, as a large proportion of the network will reach 80 years of age by that date.

Alternatively, the rate of footpath expenditure could be increased immediately to 2% of the total network per year. This will however exceed the agreed NZTA footpath replacement and increase rates by approximately 1.5%. This will smooth the increase in roading renewals.

It is however likely that NZTA may increase its funding to match the required asset renewals, and therefore the current strategy is to follow the roading renewals programme as presented in *Figure 1*.

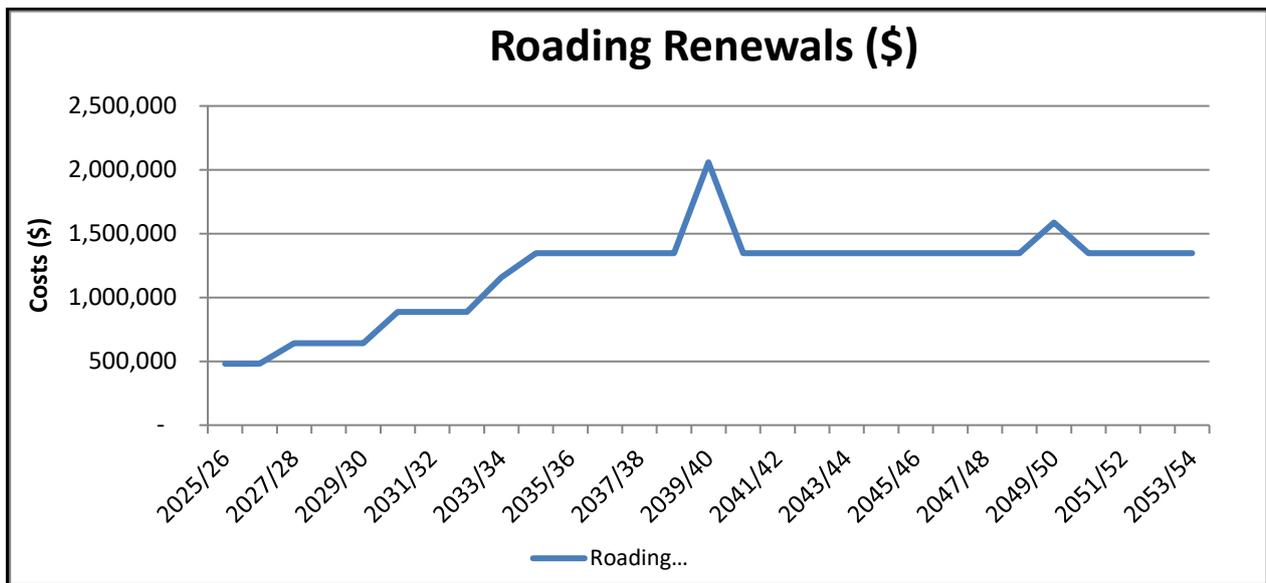


Figure 1: Roading renewals annual expenditure (Stated in todays \$)

2.1.1. Improved Technology

The conversion of streetlights to LED luminaries was completed in 2018 and no further improvements are planned.

There are no other improved technologies foreseen in the next 30 years that will significantly affect the cost to replace or frequency of replacement of roading assets.

2.1.2. Environmental Effects

Prolonged high rainfall periods caused high water tables that damaged roading pavements and footpaths. Affected areas have been replaced early with underground infrastructure that will reduce the effect of high water tables.

The roading network has been highly resilient to localised rainfall flooding events.

Other climate change impacts such as sea level rise and increases in droughts and floods are unlikely to have significant impact on the roading infrastructure.

2.1.3. Earthquake Resilience

The roading network suffered no damage in the 1987 Edgecumbe earthquake event, which indicates that the network is at minimal risk from small to moderate earthquakes. There is always a possibility however, that another earthquake of a similar or greater magnitude could cause more serious damage. Significant damage to the roading infrastructure is limited to the bridge and culverts in the district.

2.1.4. Increased Use

The existing network has sufficient capacity to accommodate predicted changes in volume without any detectable impact. This strategy does therefore not take into account any moderate to large changes in vehicle traffic volumes.

SECTION THREE

3. Stormwater



3.1. STORMWATER ASSETS

The Stormwater activity involves Council disposing of stormwater from the roading network, repairing or replacing unsound pipes and other stormwater structures, cleaning pipes and cesspits and planning to meet future requirements, and improving operations. Stormwater is collected predominantly from the roading network and channelled through a network of pipes into natural waterways.

Stormwater assets include cesspits, piping and manholes as well as the stormwater. The net value of Council's stormwater assets at 30 June 2024 is \$6 million.

The key components of the roading network is listed in Table 3 below:

Table 3: Key Stormwater asset components

Length of piping (kms)	31.5
Number of cesspits	783
Number of outfalls	20
Number of manholes	538

The network is predominantly concrete pipes and manholes with some earthen ware, PVC and PE in the town centre where it is impacted by Geothermal. The more modern smaller diameter pipes are PE.

The allocated life expectancy of stormwater pipes, manholes, cesspits and outfall structures is 70 - 100 years based on professional knowledge and local conditions. In geothermal areas, all concrete pipes have been replaced with more appropriate PVC and PE pipes, or relined where possible.

Areas subject to geothermal activity do decrease faster and a shorter 40 year lifetime is applied.

Expenditure on Stormwater renewals is shown in *Figure 2* below.

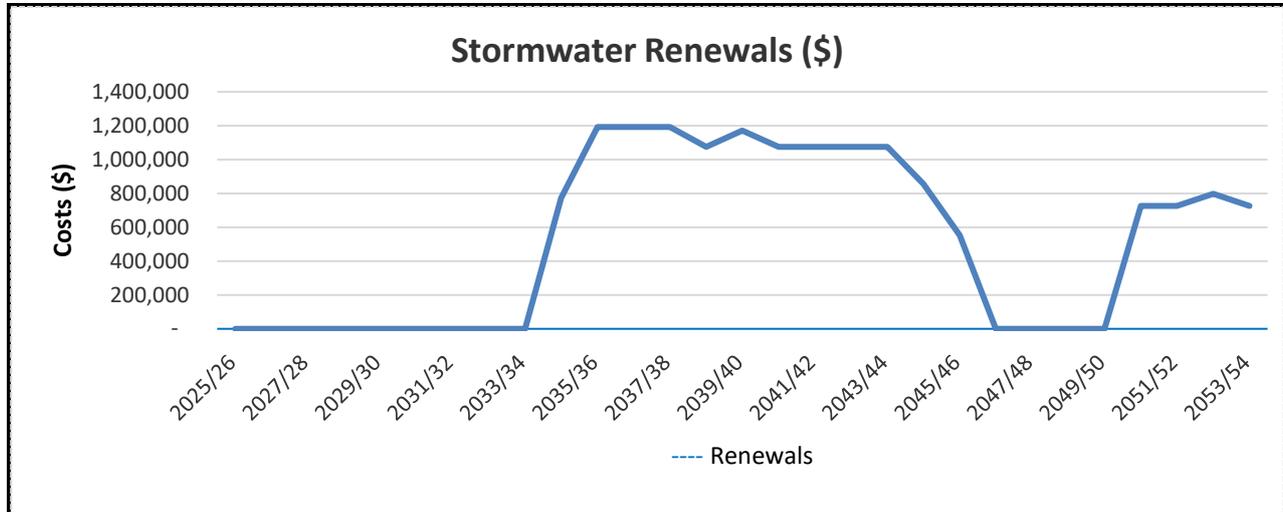


Figure 2: Stormwater renewals annual expenditure (Stated in today's \$)

Council plans to replace approximately 18 kilometres of Stormwater pipes over the twelve years (2034 – 2046) and a further 4.9 kilometres from 2050 to 2054.

3.1.1. Improved Technology

Thrusting of smaller pipes is significantly more cost effective than traditional digging and has reduced the replacement costs of smaller stormwater pipes.

Relining of larger pipes is very cost effective and has become the standard way to replace stormwater pipes that have not collapsed.

3.1.2. Environmental Effects

The change in climate has resulted in increased rainfall intensities in recent years.

The ensuing increased water flows have exceeded pipework capacity and runoff from farmland inundated a number of homes in 2017, following an extreme rainfall event (300mm in 8hours).

Following this event a number of flow diversion and retention structures were built to manage water runoff from future heavy rainfall. In addition 2 culverts under River Road were replaced in 2021 to eliminate debris build up on dividing walls and reduce the risk of property being flooded.

Prolonged high rainfall periods caused high water tables that damaged roading pavement and footpaths. Council installed a passive drainage system to remove water damaging the roads that were connected to the stormwater system. Council is also planning further mitigation work to prevent sub-surface water from flowing through private property and further damaging the roading network

Other climate change impacts such as sea level rise and increases in droughts and floods are unlikely to have significant impact on the stormwater infrastructure.

3.1.3. Earthquake Resilience

The stormwater network suffered no damage following the 1987 earthquake event, which indicates that the stormwater network is at minimal risk from small to moderate earthquakes. There is always a possibility however, that another earthquake of a similar or greater magnitude could cause more serious damage. Stormwater pipes are being replaced and relined with polyethylene (PE) which is more flexible than traditional concrete and is able to withstand earthquakes.



SECTION FOUR

4. Water Supply



4.1. WATER SUPPLY ASSETS

The Kawerau District water supply network comprises springs, pumps, reservoirs and pipes. It distributes potable (drinkable) water to around 2,745 households, 5 large industrial plants and approximately 160 businesses. The water is principally sourced from a bore field with two springs that may be consented and utilised.

From source the water is treated (UV and Chlorine) and then pumped to three reservoirs, from where it is delivered to consumers by gravity. Large water users have metered supplies. The net value of Council's water supply assets at 30 June 2024 is \$16 million. Key components of the system are summarised in Table 4 below:

Table 4: Key Water Supply asset components

Number of properties connected	2,910
Length of piping (kms)	80
Number of pumping stations	2
Number of treatment plants	1
Number of water sources	3

The Water Supply network reticulation consist of Steel, AC and PVC/PE pipes. Up to June 2021, pipes were generally replaced after regular failures occurred. However, Council resolved from 1 July 2021 to replace all the AC and steel pipes over a 6 year period (\$2.0 million annually).The network is being replaced with polyethylene pipes (PE) and after 2029, only polyethylene (PE) and PVC pipes will remain.

Council will replace approximately 27 km of water supply pipes over the next 4 years at a cost of \$9.4 million. This will mean that no further pipe renewal will need to occur for at least 30 years apart from the gravity and rising mains to the reservoirs and treatment plant.

Also in 2026/27 Council is planning to install a manganese removal plant as this will improve the quality of water and give the activity additional resilience for the future.

Expenditure on Water Supply renewals is shown in *Figure 3* below.

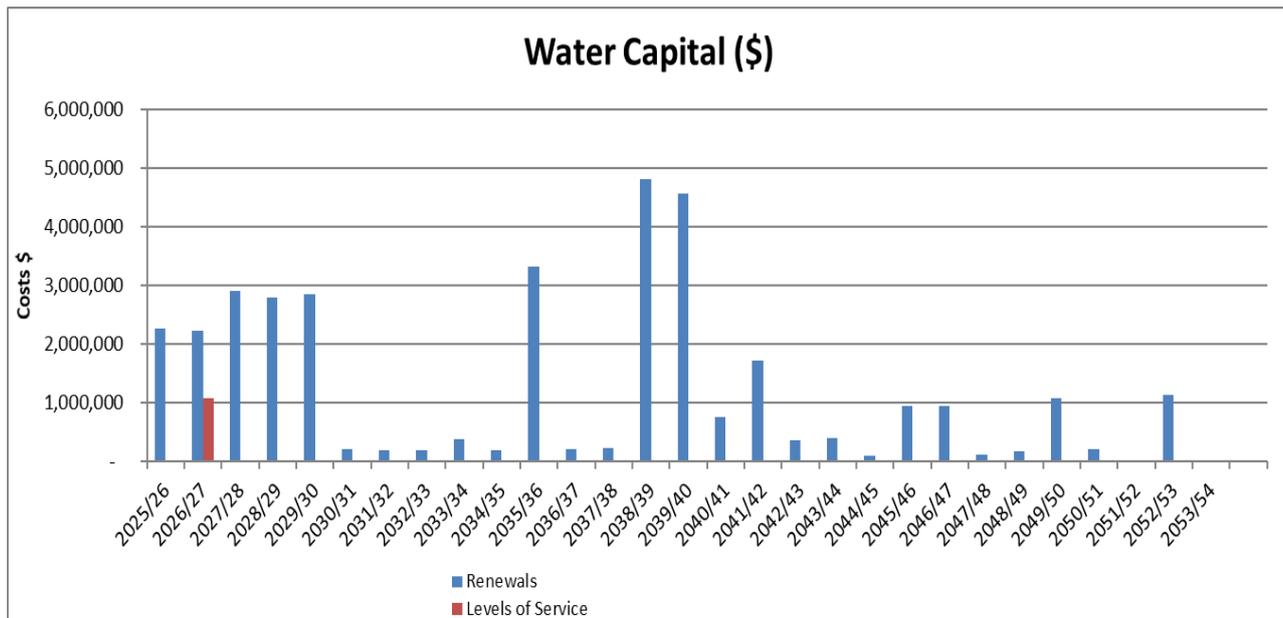


Figure 3: Water Supply renewals annual expenditure (stated in today's \$)

Following the 3 years of pipe renewals, the next expenditure spike in 2034/35 is for renewal of the small reservoir on Monika Lanham Reserve followed in the next couple of years by replacement of

trunk and gravity mains. The current main source of water is the Tarawera bores which were fully upgraded in 2021-23. The first of two springs, the Umukaraka Spring is being upgraded in 2029/30.

The Pumphouse spring is currently not used, except when there is water shortages, because of the high levels of manganese in the water, which causes discolouration. Council plans to have a manganese removal plant installed in 2026/27, so this source of water will be available.

The gravity main from the Umukaraka Spring to the treatment plant is made from AC pipe, is 3,200 metres long, and 450 mm in diameter. Installed in 1968, it is showing some signs of deterioration. Umukaraka Spring water has a low pH value (i.e. high acidity level) which is contributing to the deterioration in the gravity main. The gravity main is not under pressure so the pipe is expected to last for 70 years. However, if there are any failures to the Tarawera borefield, this would be the main water supply for the district and therefore the spring head and gravity main pipe are considered critical infrastructure. The main line will be relined with a polyethylene liner in 2037-2039.

The small reservoir on Monika Lanham reserve suffered some damage during the Edgecumbe earthquake and further deteriorated due to low pH water. The reservoir is currently being assessed to confirm the remaining life. The reservoir is planned to be replaced by a larger 4.5 million litre reservoir in 2034/35, however this date may be brought forward depending on the structural evaluation outcome.

4.1.1. Improved Technology

Thrusting of smaller pipes is significantly more cost effective than traditional trenching and laying and has reduced the replacement costs of water supply pipes.

The replacement pipe material (polyethylene) is a significant improvement on the material that currently comprises the network for Three Waters reticulation. This material is expected to last longer and is considerably easier to maintain. It has greater flexibility than previously used materials and is able to withstand the effects of earthquakes.

4.1.2. Environmental Effects

The change in climate has resulted in increased rainfall intensities in recent years. It may also cause increased and prolonged droughts.

Local demand for water is not expected to increase markedly over the life of this strategy. The Bay of Plenty Regional Council will undertake a review of the water allocations when issuing resource consents. Water for human consumption is given high priority compared with other uses (e.g. irrigation or industry) so minimal impact is expected in relation to Kawerau's water supply infrastructure. If the Regional Council was to reduce the maximum amount of water that Council could take, Council would have to start imposing water restrictions in summer.

There would be no additional costs associated with this risk; however, it would result in a reduced level of service for the community.

Other climate change impacts such as sea level rise and increases in droughts and floods are unlikely to have significant impact on the water supply infrastructure.

4.1.3. Earthquake Resilience

The water supply network suffered no damage in the 1987 event, which indicates that the water supply network is at minimal risk from small to moderate earthquakes. There is always a possibility that another earthquake of a similar or greater magnitude could cause more serious damage.

Water supply pipes are being replaced or relined with polyethylene, which is more flexible than traditional concrete and AC pipes and is better able to withstand earthquakes.

SECTION FIVE

5. Wastewater



5.1. WASTEWATER ASSETS

The Kawerau District wastewater network comprises of Toby and larger industrial connections with testable and non-testable backflow prevention, small pipes connecting users to the network, and large pipes, manholes, and pumpstations to carry wastewater to the treatment plant. Treated sewage is discharged to ground at the rapid infiltration basins in Spencer Avenue. The screened solid waste is sent to landfill, and the biosolids are processed through worm farming. The service collects wastewater from around 2,715 households, 5 large industrial plants and approximately 160 businesses. Large trade waste clients' wastewater is metered.

The net value of Council's water supply assets at 30 June 2024 is \$14.3 million. Key components of the system are summarised in Table 5 below:

Table 5: Key Wastewater asset components

Number of properties connected	2,880
Length of reticulation (kms)	62.6
Number of pumping stations	6
Number of treatment plants	1
Manholes	772
Wastewater treated (avg m ³ /d)	2,200

The wastewater network reticulation consists of concrete/earthenware, AC, PVC and PE pipes. Pipes are generally replaced after regular failures occur. However, in geothermal areas, the network has been replaced with polyethylene pipes prior to the anticipated life of these pipes. It is anticipated that the lifetimes of polyethylene pipes in this area will be approximately half of the life in the non-geothermal areas (40 years).

PVC and PE pipes (which have been estimated to have a life of 80 years) will not reach the end of their lifetime during this Infrastructure Strategy but their lives will be evaluated and applied in future strategies.

Council will replace approximately 19 km of pipes over the next 9 years and a further 28.5 km of pipes from 2034 to 2054.

Expenditure on Wastewater renewals is shown in *Figure 4* below.

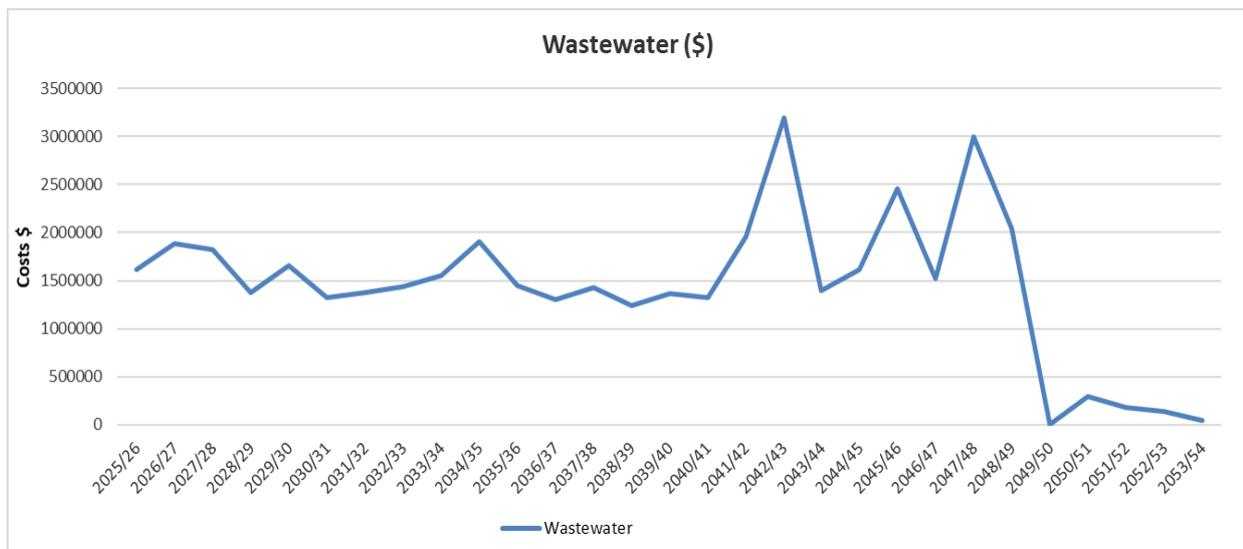


Figure 4: Wastewater renewals annual expenditure (Stated in today's \$)

The largest portion of wastewater renewal expenditure over the thirty years is for the replacement of wastewater pipes. The expenditure spike in 2042/43, 2045/46 and 2047/48 is for additional pipe renewals and upgrades to the wastewater treatment plant.

5.1.1. Improved Technology

Thrusting of smaller pipes is significantly more cost effective than traditional trenching and laying and has reduced the replacement costs of wastewater pipes.

The replacement pipe material (polyethylene) is a significant improvement on the older material that currently comprises the network for Three Waters reticulation. Polyethylene is expected to last longer and is considerably easier to maintain. It has greater flexibility than previously used materials and is able to withstand the effects of earthquakes.

5.1.2. Environmental Effects

The change in climate has resulted in increased rainfall intensities in recent years. It may also cause increased and prolonged droughts.

The prolonged high rainfall events between 2022 and 2024 and corresponding high water levels did not affect the treatment plant or the rapid infiltration basins. There were no changes observed in the capacity to dispose of treated waste water or process biosolids. Also no changes in environmental ground water test results were observed.

Other climate change impacts such as sea level rise and increases in droughts and floods are unlikely to have significant impact on the wastewater infrastructure.

5.1.3. Earthquake Resilience

The wastewater network suffered no damage in the 1987 Edgecumbe earthquake event, which indicates that the wastewater network is at minimal risk from small to moderate earthquakes. There is always a possibility that another earthquake of a similar or greater magnitude could cause more serious damage. Wastewater pipes are being replaced or relined with polyethylene which is more flexible than traditional concrete/earthenware and AC pipes and is able to better withstand earthquakes.

SECTION SIX

6. Conclusion



6.1. TOTAL REPLACEMENT PROGRAMME

The costs associated with the proposed renewals/upgrades (including inflation) for roading, water supply, wastewater and stormwater are shown in the table below:

Table 6: Cost of Replacement Programme

Renewal	Most likely scenario
Roading:	
Roading renewals 2025 - 54	\$53,557,300
Water:	
Water reticulation renewals 2025 - 54	\$34,129,100
Wastewater:	
Wastewater renewals 2025 - 54	\$42,021,300
Stormwater:	
Stormwater renewals 2025 - 54	\$26,036,200
Total	\$155,753,900

The proposed infrastructure replacement programme for the next 29 years as well as the annual renewal and operational (including inflation) is shown in the following tables:

Table 7 (a): Renewal Programme 2025 – 54

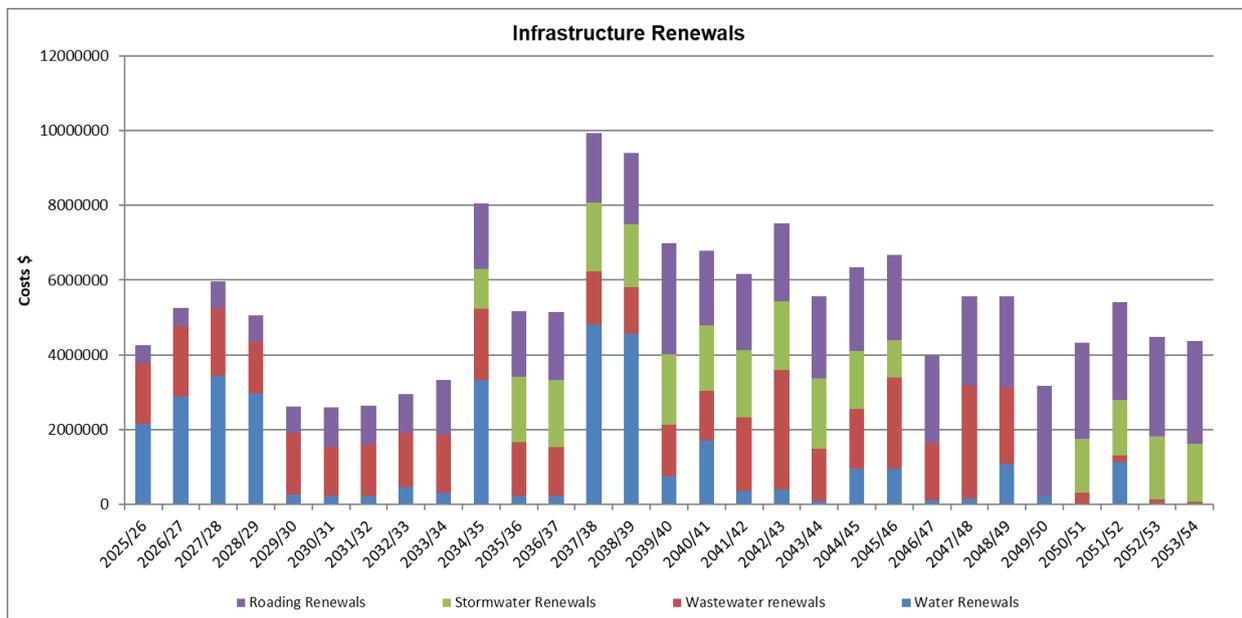
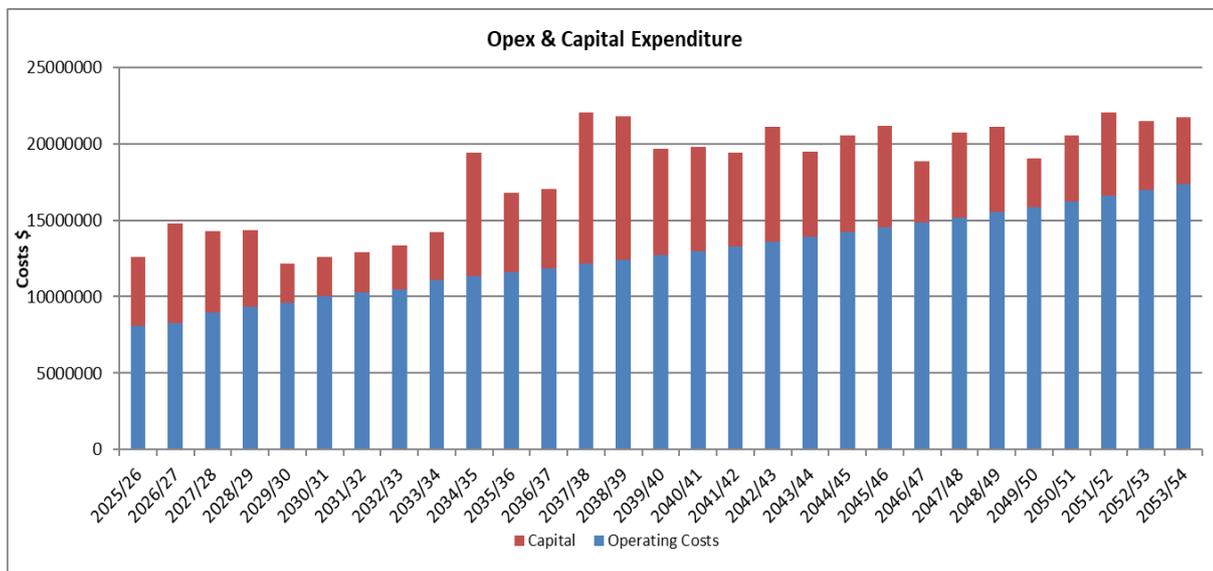


Table 8 (b): Renewal Programme 2025 – 54

Year	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35
Water	2,228,836	2,913,092	2,798,410	2,842,120	211,490	183,110	187,950	386,120	197,170	3,327,598
Wastewater	1,742,400	1,963,070	1,797,540	1,371,260	1,623,290	1,318,670	1,369,010	1,432,700	1,550,740	1,906,702
Stormwater	-	-	-	-	-	-	-	-	-	1,064,192
Roading	543,177	555,026	763,624	774,811	780,522	1,051,213	1,062,616	1,068,223	1,367,310	1,745,895
	4,514,413	5,431,189	5,359,574	4,988,191	2,615,302	2,552,993	2,619,576	2,887,043	3,115,220	8,044,387

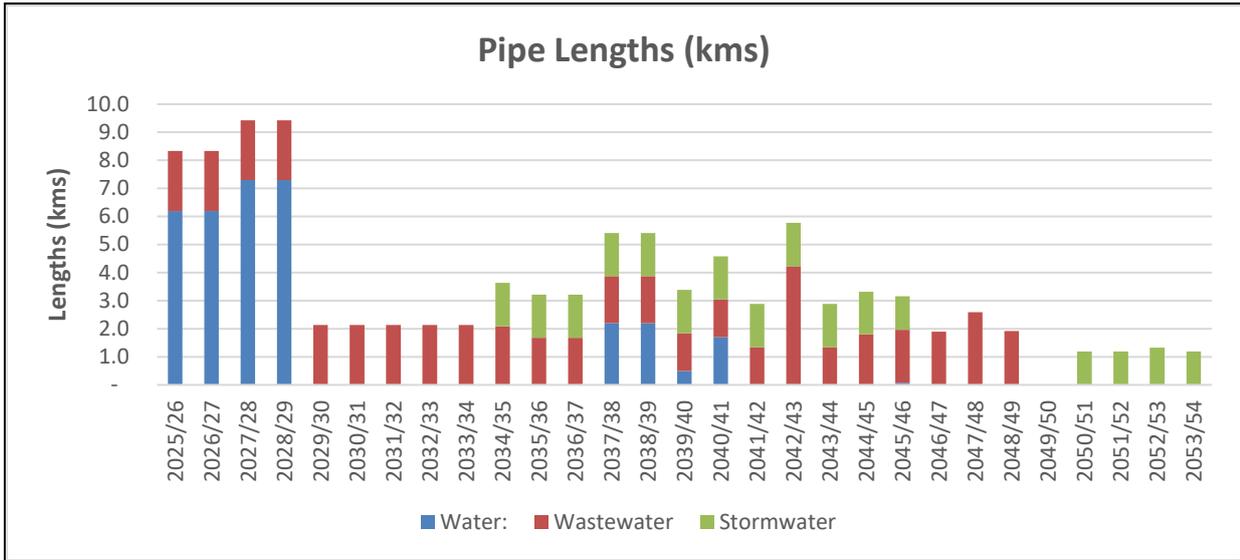
Year	2035 - 2040	2040 - 2045	2045 - 2050	2050 - 2054
Water	10,574,955	3,518,166	2,526,961	1,160,712
Wastewater	6,789,718	9,484,422	9,019,037	652,708
Stormwater	8,942,874	8,843,755	985,673	6,199,686
Roading	10,317,702	10,541,716	12,415,095	10,570,355
	36,625,249	32,388,059	24,946,766	18,583,461

Table 9: Annual Operating and Capital Expenditure for Infrastructure 2025 – 54



The following table shows the length of pipe replacement programmed for the Three Waters over the next 30 years.

Table 10: Annual Pipe Replacements for Three Waters 2025 – 54



Council Policy

Revenue and Financing Policy

Effective Date:	1 July 2025
Date First Adopted:	2003
Last Reviewed:	2021
Next Review Date:	2027 (Three Yearly Review)
File reference:	Pol 14
Responsibility:	Group Manager, Finance and Corporate Services
Associated Documents:	N/A

1. Policy Objectives

The Objectives of this policy are to:

- state the funding approach of Council in respect to both operating and capital expenditure
- explain who pays and why
- outline how Council's activities are funded
- meet the requirements of the Local Government Act 2002, under sections 102 and 103; Council must adopt a Revenue and Financing Policy.

2. Policy Principles

This Policy is based on the principles that:

- Council has a responsibility to exercise prudent financial management for the community now and in the future.
- The cost of providing Council services should be borne equitably by the community and those who use the service.
- Fees and charges should be fair.
- Council will consider affordability when determining the levels of fees and charges.
- Council will endeavour to have a balanced budget with each year's operating revenue set at a level sufficient to meet the operating expenditure, unless Council resolves it is financially prudent not to do so. For Council this primarily relates to the non-funding of depreciation expenditure. (See Financial Strategy regarding funding of depreciation expenditure).

3. Policy Background

The services provided by Council are divided into significant activities.

Legislative requirements

The Local Government Act requires that the funding needs of Council must be met from those sources which are deemed to be appropriate, following the consideration of:

- The community outcomes to which the activity primarily contributes
- The distribution of benefits among the Community as a whole, any identifiable part of the Community, and individuals
- The period in or over which those benefits are expected to occur
- The extent to which the actions or inaction of particular individuals or a group contribute to the need to undertake the activity
- The costs and benefits, including consequences for transparency and accountability, of funding the activity distinctly from other activities.

Council must then assess the overall impact on the community of allocating the liability for this revenue, before determining the appropriate funding mechanisms. Council must also determine the costs and benefits, including consequences for transparency and accountability, of funding the activity distinctly from other activities

The second stage is to take the combined results of the allocations from the first stage and to assess the overall impact of that on the current and future social, economic, environmental, and cultural well-being of the Community.

4. Policy Definitions

Community outcomes: The outcomes a local authority aims to achieve in order to promote the economic, social, economic and cultural well-being of its district in the present and for the future. They define the desired future for the District. Kawerau's community outcomes are described in this Long Term Plan.

Distribution of benefits: Identifying who benefits from an activity provided by Council is important when considering who should pay for the service. Generally, if only individuals receive the benefits of an activity (private benefits), a user-pays system should be considered. If the benefits of an activity are shared by a large group within the community, then an appropriate funding option for that activity would be a targeted rate. Alternatively, if the benefits of an activity are shared by the whole community (public benefit) then an appropriate funding option for that activity would be the general rate.

Industrial/Commercial: All properties other than those defined as "Residential".

Residential: Properties situated in any zone used solely for residential purposes.

Period of benefits: A statutorily required assessment of the period over which the benefits from each activity will flow. This helps identify the period over which the operating and capital expenditure should be funded. For all activities, operating costs are directly related to providing benefits in the year of expenditure. As such, they are required to be adequately funded on an annual basis.

Assets provide benefits over more than one year and therefore benefits are derived over the useful life of each asset. Useful lives range from a few years in the case of computer equipment to many decades for infrastructural assets such as the water supply network. This introduces the concept of 'intergenerational equity' whereby the cost of any expenditure should be recovered over the period of time in which the benefits of that expenditure accrue. This is particularly relevant for significant assets such as the wastewater, stormwater, roading and water supply networks.

To ensure that each generation of ratepayers pay for the benefits they receive, the depreciation costs of an asset are funded from rates from the corresponding year. Infrastructural costs are thus spread more evenly across the life of the asset and the different ratepayers who benefit from it.

Funding of capital expenditure: There are three types of capital expenditure which need to be funded: purchase of new assets, replacement of existing assets and repayment of loan principal on debt (both external and internal).

Depreciation reserves are used to fund capital expenditure in Council activities for which asset depreciation is funded. It is estimated that Council will continue to borrow externally to fund the infrastructural asset renewals during the current Long Term Plan. A table showing planned renewal expenditure is included in the financial statements.

The Local Government Act requires that Council operating revenues in any one financial year should be set at a level sufficient to meet all projected operating expenses, including depreciation costs. Depreciation on some assets is not fully funded (see Financial Strategy). Any capital expenditure on those assets is funded from general rates, grants or external loans.

Contributors to the need for an activity (polluter pays): The ‘polluter pays’ principle is that the person who creates a problem which incurs costs for Council, should contribute some or all of the funds to meet those costs. For example, dog owners who allow their dogs to roam should pay a fine to cover the cost of impounding. However, this is not always practical, as identifying and charging the offender is not always possible. Similarly, people who do graffiti or dump rubbish illegally are not always caught. Council’s policy is to recover these costs where practicable.

Costs and benefits of funding the activity distinctly from other activities: When selecting a particular funding mechanism Council is required to consider the costs and benefits. It is possible to establish specific charges or rates for each service, however this is not the best approach if the cost of establishing and administering a charging system outweighs the benefits, or the revenue gained. This is assessed on a case-by-case basis. Council is also required to consider alternative funding mechanisms in terms of transparency and accountability. One which is targeted for specific cost items is more transparent to users of the activity than general or aggregated funding. However, if the targeted charging approach excessively increases administrative costs then an aggregated charging approach may be better.

Overall impact of the method of funding

In addition to all of the issues explained above, Council is required to consider the overall impact that any allocation of charges and costs may have on the current and future social, economic, environmental and cultural well-being of the Community.

5. Policy Statement

5.1 Funding of Operating Expenditure:

All operating expenses will be funded each year in accordance with the summary table which lists the following funding sources for each activity after Council determines:

- the beneficiaries of Council activities
- the ability of residents to pay for Council services
- whether there are any “exacerbators” for the particular activity; and
- the costs and benefits of using the selected funding source.

The following are Funding Sources to meet Operating Expenditure:

General Rate:

Council charges general rates through both a Uniform Annual General Charge (UAGC) on each separately used or inhabited part of a rating unit and a rate in the dollar on capital value in accordance with Council's Differential Rating System. The purpose of the UAGC is to ensure a minimum contribution to the general rate from all ratepayers and a more even allocation of the general rate. The UAGC amount has been set by Council to produce the fairest and most equitable overall result for the community.

Council charges general rates on a differential basis in accordance with the Local Government (Rating) Act 2002. Council introduced differential rating in 1978. The objective of Council's system of differential rating is primarily to retain the ratio between commercial and industrial ratepayers on the one hand and residential ratepayers on the other. The general rate (including the UAGC) is apportioned on a ratio of 52:48 Industrial/Commercial: Residential.

Targeted Rates:

Water: Council charges a uniform fixed amount for the provision of water supply. The rate is charged to each separately used or inhabited part of a rating unit to which Council supplies water, other than properties on metered water supply.

Wastewater: Council charges a uniform fixed amount for the collection and treatment of wastewater. The rate is charged to each separately used or inhabited part of a rating unit which is connected to Council's wastewater disposal network.

Refuse Collection: Council charges a uniform fixed amount for the collection of residual refuse. The rate is charged to each separately used or inhabited part of a rating unit from which Council is prepared to remove residual refuse.

Grants and Subsidies:

Much of Council's Roading expenditure is subsidised by the New Zealand Transport Agency (NZTA). Subsidies contribute to the long term maintenance of carriageways and stormwater drainage and lighting systems. There is also a small annual amount contributed by the NZ Defence Force for the upkeep of returned servicemen graves, which is included in subsidies and grants.

Interest and Dividends:

Council has minimal equity investments and therefore receives no dividend income of any consequence.

Interest is received from financial investments. Significant replacement of infrastructure assets will occur in the 2025–2034 period. Council will only have moderate cash surpluses and depreciation reserves. While the reserves are invested in accordance with Council's Investment Policy and are retained for expenditure on asset replacement, there will only be small proceeds from these investments. Interest revenue from the investment of these reserves lowers the amount of depreciation funding required from general rates.

Fees and Charges:

Fees and charges are imposed on a wide range of activities. Council considers a number of matters when setting fees.

These include:

- The cost of the service provided, and the private benefits received.
- The ability of users to pay and the possible exclusionary effects to people on low incomes.
- The risk of people not using Council services if charges for those services are perceived to be too high.
- In applicable cases, whether the user lives within or outside the district.

Other Proceeds:

Proceeds from asset sales and cash reserves are generally used to repay debt, funding capital expenditure or are set aside in a reserve for the future acquisition of new assets. Council may consider in specific circumstances, it is financially prudent to use such proceeds and reserves to fund operational expenditure.

5.2 Funding of Capital Expenditure:

Capital expenditure is funded in accordance with the type of expenditure that is incurred:

- Renewals are funded from depreciation reserves (unless funded by external loan).
- Capital expenditure to improve the level of service or meet additional demand is funded from depreciation reserves.
- External loans – to fund large projects such as the replacement of water pipes.

Other sources of capital funding include:

- NZTA subsidy for Roading renewals and capital expenditure
- Grants from various funding agencies.

Proceeds from Asset Sales:

Proceeds from asset sales are used to repay debt or are set aside in a reserve for the future acquisition of new assets.

Reserve Funds:

Most Council reserve funds are held in depreciation reserves. These are used to finance the renewal of existing assets.

Borrowing:

Council's borrowings are managed per Council's Liability Management Policy. Borrowings are generally used to fund capital projects that include an element of service enhancement or where the project is significant in value greater than depreciation reserves available. Borrowing for significant capital projects allows Council to ensure there is intergenerational equity, enabling the spread of the cost over the life of the asset.

Financial Contributions:

There is an ability for Council to collect financial contributions as per a Financial Contributions Policy.

5.3 Assessment of Overall Impact on Allocation of Funding Needs Contributions:

There is an ability for Council to collect revenue from a range of sources. Council selects funding tools which lead to the most equitable funding of activities in terms of:

- The distribution of benefits across the community
- When the benefits are expected to occur
- The extent to which the action or inaction of particular individuals or group(s) contribute to the need to provide the activity
- Affordability

While the level of private benefit provided by some activities would justify imposing user fees and charges, Council wishes to enhance community well-being by enabling every resident to access Council services. This is based on the principle that inability to pay should not restrict access to services.

Council has therefore determined that general rates will be used to fund:

- Access to the Public Library / Museum for residents and ratepayers
- Access to the Maurie Kjar Aquatic Centre
- Affordable rental fees for the use of the Town Hall, Concert Chambers, Recreation Centre, Rangī Delamere Centre and Passive Reserves
- Free access to Town Centre Toilets

Table: Mix of funding mechanisms for operating expenses Table: Allocation of costs

Significant Activity	Who Benefits		Funding Ratio		Comments
	Community/ Public Benefit	Private/Individual Benefit	Community/ Public Benefit (%)	Private/Individual Benefit (%)	
Democracy	✓		100	0	
Economic and Community Development					
Economic Development	✓	✓	80-100	0-20	
Pensioner Housing	✓	✓	0-10 100	90-100 0	
Community, Cultural and Social Residential/Commercial Developments	✓		20-40	60-80	Development to increase rates base
Firmin Lodge	✓	✓	40-50	50-60	
Information Centre	✓	✓	40-50	50-60	
Porritt Glade Lifestyle Village	✓	✓	0	100	
Environmental Services					
Resource Management - Planning	✓		100	0	
Resource Management - Consents	✓	✓	20-30	70-80	
Building and Inspection	✓	✓	60-70	30-40	
Environmental Health	✓	✓	70-90	10-30	
Dog Control	✓	✓	90	10	
Dog Registration		✓	0	100	Balance affordability of fees
Civil Defence	✓		100	0	
Roading	✓	✓	60-50	40-50	NZTA subsidy 75% only on subsidised roads
Stormwater	✓		100	0	
Water Supply	✓	✓	10-20	80-90	Current targeted water and wastewater rates are low. Council is to gradually transition to higher targeted rates
Wastewater	✓	✓	10-20	80-90	
Solid Waste					
Refuse Collection	✓	✓	10	90	Targeted rate
Refuse Disposal	✓	✓	20-40	60-80	Balance fees with illegal disposal
Zero Waste	✓	✓	80-100	0-20	Subsidies & user fees
Leisure and Recreation					
Library/Museum	✓	✓	90-100	0-10	Key is community accessibility
Swimming Pools	✓	✓	90-100	0-10	Key is community accessibility
Public Halls	✓	✓	90-100	0-10	Key is affordability of hire fees
Public Toilets	✓	✓	100	0	
Parks and Reserves	✓	✓	90-100	0-10	
Cemetery	✓	✓	20-40	60-80	

Activity	Funding of Operational Expenditure				
	General Rates	Targeted Rates	User Fees & Charges	Subsidies & Grants	Petrol Tax
Democracy	✓				
Economic and Community Development					
Economic Development	✓				
Pensioner Housing			✓		
Community, Cultural and Social	✓				
Residential/Commercial Developments	✓			✓	
Firmin Lodge	✓		✓		
isite	✓		✓		
Porritt Glade Lifestyle Village			✓		
Environmental Services					
Resource Management	✓				
Planning Resource Management	✓		✓		
Building Control	✓		✓		
Environment Health	✓		✓		
Dog Control	✓				
Dog Registration			✓		
Civil Defence	✓				
Roading	✓		✓	✓	✓
Stormwater	✓				
Water Supply	✓		✓		
Wastewater Supply	✓		✓		
Solid Waste					
Refuse Collection	✓		✓		
Refuse Disposal	✓		✓		
Zero Waste	✓		✓	✓	
Leisure and Recreation					
Library	✓		✓		
Swimming Pool	✓		✓		
Public Halls	✓		✓		
Public Toilets	✓				
Parks & Reserves	✓		✓		
Cemetery	✓		✓	✓	