



ATTACHMENTS

UNDER SEPARATE COVER 2

Ordinary Council Meeting

3 May 2024

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PURPOSE AND EXECUTIVE SUMMARY

1. Council manages significant 3-waters and transport infrastructure on behalf of the community. Most of this infrastructure has a long-life, typically many decades. While the Long-term plan provides Council’s delivery plans for the near future¹, this infrastructure strategy ensures that this planning is done within the context of ensuring sensible, efficient and sustainable management of three-waters and transport infrastructure for the long-term.
2. This strategy aims to demonstrate that Council is carefully managing these assets by setting out how council will ensure it meets these objectives:
 - Assets are well looked after and in good condition for future generations Page 3
 - We are planning and investing to support growth and housing development Page 6
 - We are maintaining levels of service and improving public health and environmental outcomes Page 17
 - We are managing natural hazard risks to ensure our infrastructure is resilient Page 29
3. This strategy also sets out the major infrastructure challenges that we expect to face over the next 30 years, the options for addressing these, and when important decision will need to be made. These are:
 - Identifying a Northern Access solution Page 11
 - Managing wastewater north of the Waikato River Page 13
 - Improving the disposal of wastewater in Tūrangi Page 25
4. This strategy also sets out 30-year planned revenue and expenditure. Page 33

SCOPE IS LIMITED TO 3 WATERS AND TRANSPORT INFRASTRUCTURE

5. This Strategy sets out how Council will manage the community’s infrastructure relating to:
 - Water, wastewater, and stormwater Including treatment plants, pipe networks, and disposal systems
 - Transport Including local roads, bridges, footpaths, streetlights, cycle paths, road signs and bus shelters, and roads that are used for stormwater management.
6. For the areas of solid waste, parks and reserves, and community buildings and facilities, the long-term plan sets out the objectives and investment plans for the next 10 years, and we have long-term asset management plans for each area that underpins these investment plans.

¹ The next 1 – 3 years in some detail, and then indicative plans looking out 10 years.



ALIGNMENT BETWEEN FINANCIAL AND INFRASTRUCTURE STRATEGY

7. Prudent asset management and prudent financial management go hand in hand. Identifying investment needs must be paired with identifying appropriate and sustainable funding arrangements.
8. Our financial strategy includes several measures to ensure sustainable and prudent financial management to support the additional investment identified in this infrastructure strategy. Additional investment is being driven by increased renewals and maintenance requirements, higher growth expectations, improvements to meet new legislative requirements, and improvements to ensure the resilience of our essential services. Measures identified in the financial strategy include:
 - Funding 100% of depreciation.
 - Using Development Contributions and development agreements to fund growth projects (noting there are still debt impacts)
 - An increase in Council's debt allowance from 225% to 250% of annual revenue, to recognise increased growth.
 - Signalling higher levels of rates increases for the short-term, and funding voluntary debt repayments and depreciation reserve top-ups throughout the 10-year period, to ensure future generations are not funding the eventual replacement of the assets used by current ratepayers.
 - Rationalisation of Council's discretionary capital projects, a focus on increasing 3rd party funding opportunities, and improved management of financial assets.
 - Planning for unexpected events by ensuring financial sustainability over the long-term, maintaining sufficient debt headroom, and prudent management of Councils investments. Council uses the assets of the TEL as self-insurance for underground assets, avoiding the challenges underground insurance and significant insurance premiums on these assets. Council also maintains a disaster recovery reserve as another element of planning for unexpected events, such as natural disasters.



ASSETS ARE WELL LOOKED AFTER AND IN GOOD CONDITION FOR FUTURE GENERATIONS

TIMELY RENEWALS REMAINS A TOP PRIORITY FOR COUNCIL

9. Keeping on top of renewals, and making sure that the community's assets are maintained in good working condition, remains a core responsibility and top priority for council.
10. We have a reasonable knowledge of the condition of our assets, and we have a plan to continue improving that knowledge over time. Our Stormwater pipe network is relatively new and in good condition. Our wastewater network has some older asbestos cement pipes that need renewal. For these two areas, there is a stable programme of renewals planned to deal with the older parts of the networks. For our transport and water pipe networks, we have a major increase in renewals programme planned:
 - Despite condition assessments not identifying significant problems, frequent failures of asbestos cement water mains means that we are planning to replace all these pipes with a ramped-up programme of renewals over the next 10 to 15 years.
 - Our roads continue to hold up beyond their expected lives because we have free draining pumice soils that support a longer pavement life. However, increased heavy vehicle traffic has put increased pressure on the network, and our roads remain at risk of micro-cracking allowing water to infiltrate the pavement causing pavement failure. We have identified the need for a step change increase (doubling) in reseal renewals to protect our roading network and avoid more costly deterioration.
11. In total, our waters and transport renewal programme will increase from \$13 million a year (2023/24 annual plan) to \$23 million a year on average over the next ten years.

ASSET MANAGEMENT PLANNING

12. Asset Management Plans (AMPs) have been developed for water, wastewater, stormwater, and transportation to inform Council's Long-term Plan. AMPs combine management, financial, engineering, and technical practices to ensure assets are managed in an affordable, efficient, sustainable, and effective manner to deliver service levels at the lowest long-term cost to the community – including both current and future generations. AMPs demonstrate that Council is managing the community's assets responsibly by:
 - Demonstrating service level options and standards.
 - Identifying minimum lifecycle (long term) costs for an agreed level of service.
 - Providing and forecasting asset management options and costs.
 - Demonstrating the management of the risks of asset failure.
 - Improving decision making based on identifying the costs and benefits of investment and delivery options.
 - Providing clear justification of forward works programmes and funding requirements
 - Ensuring accountability over the use of public resources.



COUNCIL'S CONDITION ASSESSMENT PROGRAMME

- 13. When our infrastructure assets get old or worn out, we need to replace them to keep services running, maintain service levels, and avoid failures. Undertaking these renewals at the right time, and not too early will maximise the use of assets, and the investment that we have in our infrastructure. Doing it at the right time, and not too late will avoid our infrastructure failing, interrupting services to the community, and resulting in expensive repairs.
- 14. Generally, there is an expected minimum useful life for an asset, however Council undertakes a condition assessment programme to identify the actual current performance and condition of assets, and the risk of asset failure, which are used to determine Council's asset renewal programme.

AGE AND CONDITION OF ASSETS

Transport

- 15. Over the last three years we have undertaken a thorough pavement condition assessment of our entire road network alongside our 3 yearly Deighton Total Infrastructure Management System (dTIMS) modelling exercise. A key concern has been micro-cracking of the pavement surface which is not a trigger in dTIMS, which can allow water in and swiftly deteriorate the road subsurface. A complete external validation through a visual assessment has been undertaken to identify our reseal needs, that were not previously picked up by traditional condition assessments focused on rutting, cracking, and potholes.
- 16. We have a strong understanding of our reseal and rehabilitation renewal needs over the next 10 years with a renewal programme built around high volume and critical routes and critical-risk, high-risk, medium-risk, and low-risk treatment sections. We have identified the need for a step change increase (doubling) in reseal renewals to protect our roading network and avoid more costly deterioration. Around 70% of our planned renewals programme is preventative reseals. This work is critical to prevent water ingress and to avoid higher costs of complete road rebuilds in future. Around 30% of our renewals programme is for rehabilitation due to road failure (where the substructures of the roads have already deteriorated).
- 17. While we have very good information on pavement renewal needs (our largest risk), over the next 5 – 10 years we will focus on improving our knowledge of the condition and renewal needs for:
 - road drainage and stormwater assets
 - roading structures (like bridges and retaining walls).

Water

- 18. We have progressively increased our water renewals funding over the last two Long-term Plans, but further increases are needed. We have a large backlog of water pipe renewals that need to be urgently addressed. Asbestos cement and galvanised water mains were laid in the 1950s, 60s and 70s and are at the end of their life. The asbestos in these pipes is not considered a health risk, however these pipe types are more fragile and prone to spontaneous failure (pipe bursts) when they get to the end of their life. We currently experience frequent pipe bursts and failures in affected areas. These older pipes represent approximately 40% of the network. We are planning a significantly increased programme of water pipe renewals to replace all these pipes and clear the backlog. This catch-up programme will take around 10 to 15 years to complete, after which we will be ahead of renewals – replacing pipes before they reach a high risk of failure.

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19. Renewals spend requirements will reduce significantly once the asbestos and galvanised steel water mains are replaced. Operational budgets will also be able to be reduced due to the expected reduction in pipeline failures. Annual renewal budgets in the future will be able to be set proactively to target pipe replacements prior to end of life.
20. While we have good information on our water pipe network condition and renewal needs, over the next 5 – 10 years we need to focus on improving our knowledge of the condition and renewal needs for our water treatment plants, this data is currently incomplete and sits outside of Councils primary database (Assetfinda).

Wastewater

21. We have undertaken a programme of condition assessment for our wastewater pipe network, primarily using CCTV inspection and targeting our older areas of the network, such as Turangi and Mangakino (both hydro construction towns largely built in the 1970s and 1950s respectively). We have also undertaken a programme of relining works where required to extend the life of the network.
22. We have identified a reasonably steady programme of pipe renewals needed over the 20 years of around \$1.5 to \$2 million (today's dollars), there will then be a significant increase in pipe renewals around 2045 - 2050.
23. Continued collection of asset information on our wastewater pipe network condition remains a priority and targeted renewals will be completed based on the data collected. We also need to focus on improving our knowledge of the condition and renewal needs for our wastewater treatment plants, this data is currently incomplete and sits outside of Councils primary database (Asset Finda).

Stormwater

24. Council's stormwater reticulation network is a combined network of pipes, gullies and overland flow paths (including roads) which are relatively new as much of the district's urban growth has occurred within the last 30 – 40 years.
25. Most stormwater assets have an expected age of in excess of 100 years. Based on recent condition assessment of some of the older assets (35% of assets), it is anticipated that the majority of our stormwater assets will meet or exceed their anticipated design lives.
26. Additional condition assessments are required to further refine our renewal profile especially as the pipe networks within Turangi and Mangakino (both hydro construction towns) are nearing the end of their predicted life.



SIGNIFICANT RENEWALS PROJECTS, ISSUES, AND MAJOR UPCOMING DECISIONS

Major renewals programmes to address aged assets²

27. This Long-term Plan provides funding for programmes of renewals works. The main options are how quickly we complete this work - balancing realistic implementation constraints against the risks of delaying renewals as discussed earlier in this section. Renewals are funded by depreciation reserves, and supplemented with rates funding and borrowing when necessary.

• Water renewals		\$96 million	2024 – 2034
• Transport renewals		\$91 million	2024 – 2034
• Wastewater renewals		\$42 million	2024 – 2034
• Stormwater renewals		\$2.0 million	2024 – 2034
• TOTAL	(\$23.0 million per year)	\$230 million	2025 – 2034

ENSURING FINANCIAL PROVISION FOR FUTURE RENEWALS

28. Council's Financial Strategy includes that Council funds 100 % of depreciation of its assets over the asset's lifecycle.³ This means that revenue is collected to cover the cost of depreciation to ensure that today's ratepayers pay their fair share for the council's assets that they consume, essentially through wear and tear.

29. Depreciation revenue is set aside in a separate fund (depreciation reserves), which is used to fund the asset renewal programme and to pay off debt associated with capital improvement projects. Should there be a shortfall in depreciation reserve funds, Council will need to raise debt to fund these renewal programmes to ensure that it meets the levels of service agreed with the community. Maintaining prudent financial management and credit is important to support future generations to be able to borrow for such renewals.

30. How renewals will be matched by funding is provided in the final section of this strategy: Planned revenue and expenditure (Page 33).

² All figures are inflation adjusted.

³ 49% for transport assets, reflecting NZ Transport Agency funding for 51% of renewals.

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WE ARE PLANNING AND INVESTING TO SUPPORT GROWTH AND HOUSING DEVELOPMENT

COUNCIL'S STRATEGIC APPROACH TO SUPPORTING GROWTH

31. Council has a growth management strategy, Taupō District 2050 (2018), which identifies the growth areas that Council is planning infrastructure for. The strategy can be accessed at www.taupodc.govt.nz/council/plans-and-strategies/district-strategies
32. It provides for multiple growth areas (in the north and the south) in Taupō concurrently. While this has increased growth infrastructure costs compared to phasing development area by area, it aims to promote competition and choice, to support lower section and house prices.

ENSURING THERE IS ENOUGH LAND ZONED FOR HOUSING AND PLANNING INFRASTRUCTURE FOR GROWTH

33. Council developed a new growth model in 2022, based on the latest district data. Growth assumptions can be found in the Long-term Plan significant assumptions. Specific growth areas include Taupō, Kinloch, Tūrangi, Mangakino, with an allowance for growth in our rural areas and smaller settlements.



