



AGENDA

Wastewater Management Review Committee meeting Friday, 18 July 2025

I hereby give notice that a Wastewater Management Review Committee meeting will be held on:

Date: Friday, 18 July 2025

Time: 2:00pm

**Location: Tauranga City Council Chambers
Level 1 - 90 Devonport Rd
Tauranga**

Please note that this meeting will be livestreamed and the recording will be publicly available on Tauranga City Council's website: www.tauranga.govt.nz.

**Marty Grenfell
Chief Executive**

Terms of reference – Wastewater Management Review Committee

Membership

Chair	Mr Spencer Webster – Ngā Pōtiki
Deputy chair	Cr Rick Curach – Tauranga City Council
Members	Cr Rick Curach – Tauranga City Council Cr Kevin Schuler – Tauranga City Council Cr Hēmi Rolleston – Tauranga City Council Cr Rod Taylor – Tauranga City Council Ms Lara Burkhardt – Ngā Pōtiki Mr Spencer Webster – Ngā Pōtiki Mr Whitiora McLeod - Ngāi Te Rangi Mr Des Heke - Ngāti Ranginui Ms Destiny Leaf – Ngāti Ranginui (<i>alternate member</i>)
Quorum	Four members with at least one member representing Tauranga City Council and one member representing Ngā Pōtiki
Decision-making	By consensus where possible. If consensus cannot be reached, by majority vote. If there is an equal number of votes, the member who is chairing the meeting has a casting vote.
Meeting frequency	A minimum of twice yearly
Meeting venue	To alternate between marae and council venues; or as appropriate to a meeting agreed by the Chair and the Deputy Chair.

The Committee has a membership of eight, four of whom are elected members from Tauranga City Council (TCC) and four who are appointed as representatives of iwi, with one member each from Ngāti Ranginui and Te Runanga o Ngāi Te Rangi Iwi Trust and two members representing Ngā Pōtiki ā Tamapahore Trust Board.

The Wastewater Management Review Committee is established as a committee of Council under the Local Government Act 2002 and conditions imposed on Bay of Plenty Regional Council Coastal Permit # 62878.

Role

- To ensure Wastewater operations are in accordance with the Wastewater Management Review Committee Management Plan.

Scope

- (a) To receive reports on the operation of the Wastewater Scheme, including reports in relation to monitoring and permit compliance, and to make recommendations to the Permit Holder on the development of Tauranga City Council's policies in relation to wastewater management, treatment and disposal, particularly following the review of wastewater treatment in light of

new technologies and standards addressed in the Monitoring, Upgrade and Technology Review Report required by Condition 20 of Coastal Permit N^o 62878.

- (b) To make decisions about the application of the Environmental Mitigation and Enhancement Fund established in accordance with Condition 19 of Coastal Permit N^o 62878.
- (c) To make recommendations to the Permit Holder as to physical measures and initiatives to address or compensate for actual or potential effects of the Tauranga City Wastewater Scheme (in the broadest environmental sense).
- (d) Without limiting the generality of function (c) above, to make recommendations to the Permit Holder as to the implementation of the works to be undertaken in accordance with Permit N^o 62881, namely:
 - (i) Decommissioning of the Te Maunga Sludge Pond and the future use of the pond.
 - (ii) Conversion of the Te Maunga Oxidation Ponds to wetlands.
- (e) To make recommendations to the Permit Holder in relation to the independent consultant to be appointed to undertake the Monitoring, Upgrade and Technology Review Report required by Condition 20 of Coastal Permit N^o 62878.
- (f) To make recommendations to the Permit Holder as to enhancing the involvement of tangata whenua in sampling, testing and monitoring.
- (g) Assessment of the scope and adequacy of sampling and monitoring.
- (h) Notification to appropriate parties of activities that may have adverse effects.
- (i) To receive, review and recommend action following receipt of wastewater reports.
- (j) To recommend the commissioning of reports and future Tauranga City Council actions on wastewater management, treatment and disposal issues and options, including:
 - (i) Development of alternatives to waterborne wastewater systems;
 - (ii) Options for further treatments;
 - (iii) Options for methods of disposal;
 - (iv) Monitoring effects on the environment.
- (k) To co-ordinate and oversee education of the community on wastewater management, treatment and disposal issues.
- (l) To identify and make recommendations to the Permit Holder as to sources of funding which may be available to supplement the Environmental Mitigation and Enhancement Fund established pursuant to Condition 19 of Coastal Permit N^o 62878 hereof and to be applied for the purposes specified in that condition.
- (m) To make recommendations to the Permit Holder as to changes to conditions of these permits pursuant to section 127 of the Resource Management Act 1991, in light of the exercise of the Review Committee's functions, including reports received and information received as a result of monitoring, etc. or to avoid, remedy or mitigate actual or potential adverse effects associated with the operation of the Wastewater Scheme.
- (n) To foster robust relationships and dialogue between the Review Committee, the Permit Holder, the Western Bay of Plenty District Council and Bay of Plenty Regional Council in relation to wastewater management, treatment and disposal, particularly following the review of wastewater treatment in light of new technologies.
- (o) To make recommendations to Bay of Plenty Regional Council as to amendments to the conditions of these permits which could be implemented via a review under section 128 of the Act in accordance with Condition 22 of Coastal Permit N^o 62878.
- (p) Prior to making any:
 - (i) Decisions as to the allocation of the Environmental Mitigation and Enhancement Fund in accordance with Condition 18.3(b) of Coastal Permit N^o 62878 hereof or,
 - (ii) Recommendations to the Permit Holder in relation to physical environmental mitigation or enhancement or mitigation works in accordance with Condition 18.3(c) of Coastal Permit N^o 62878 hereof; -

the Review Committee will exercise its best endeavours to ascertain the existence of any persons or bodies who may have a particular interest or stake in the ecological health of the Tauranga Harbour (particularly the Upper Harbour/Rangataua Bay area) and to consult with those bodies or persons as to appropriate initiatives and measures to be so recommended (in accordance with Condition 18.3(b) of Coastal Permit N^o 62878) or undertaken (in accordance with Condition 18.3(c) of Coastal Permit N^o 62878). As a minimum, the Review Committee shall consult with:

- Nga Potiki Kaitiaki Resource Management Unit hapu and iwi of Te Runanga o Ngaiterangi Iwi Trust, Ngati Ranginui and Ngati Pukenga and Te Arawa and their respective hapu which hold kaitiaki status over the wider Tauranga Moana district, including any Working Group established by those hapu or iwi;
 - Bay of Plenty Regional Council and the Western Bay of Plenty District Council in relation to issues which may affect those councils in accordance with their function under Condition 18.3(m) of Coastal Permit N^o 62878 hereof.
- (q) Not later than one month following the first anniversary of the commencement of these permits and on each anniversary thereafter, the Wastewater Management Review Committee shall forward to the General Manager, Bay of Plenty Regional Council, a report on the exercise of its activities and functions, including where appropriate a report on the effectiveness of measures undertaken pursuant to the Environmental Mitigation and Enhancement Fund.
- (r) Not less than six months following the first anniversary of this permit and each fifth anniversary thereafter, the Wastewater Management Review Committee's annual report shall contain a review of its activities over the previous five-year period and recommendations for appropriate initiatives over the next five-year period, including any recommendations for changes to conditions of these permits which may be considered necessary or desirable. This report shall be available at least three months prior to the date on which Bay of Plenty Regional Council is entitled to review the conditions of these permits in accordance with Condition 22 of Coastal Permit N^o 62878 hereof.
- (a) A copy of this report shall also be provided to the Chief Executive, Tauranga City Council.
- (s) As set out in Condition 18.1.3 of Coastal Permit N^o 62878, the Wastewater Management Review Committee Management Plan may be amended with the written approval of the Chief Executive of Bay of Plenty Regional Council or delegate.
- (t) Confirmation of Committee minutes.

Reporting

The Wastewater Management Review Committee reports to Council and the Chief Executive of the Bay of Plenty Regional Council.

Chair and Deputy Chair acting as Co-Chairs

The Chair and Deputy Chair of the Wastewater Management Review Committee (WWMRC) have a governance role to ensure that the WWMRC meets regularly and undertakes its role to monitor and provide advice to Tauranga City Council as the consent holder of Bay of Plenty Regional Council Coastal Permit # 62878 and ensure wastewater operations are in accordance with the Wastewater Management Plan.

- The Chair will be appointed by the Tauranga City Council following a recommendation of the Wastewater Management Review Committee.
- The Deputy Chair will be appointed by the Wastewater Management Review Committee.
- While these roles are separately appointed it is the intention that they act as co-chairs.
 - Only one person can chair a meeting at any one time. The person chairing the meeting has the powers of the chair as set out in standing orders and has the option to use the casting vote in the case of an equality of votes.

- The rotation of the meeting chairs is at the discretion of the Chair and Deputy Chair and subject to their availability, however it is expected that they will alternate chairing meetings when possible.
- When the Deputy Chair is chairing the meeting, the Chair will vacate the chair and enable the Deputy Chair to chair the meeting. The Chair will be able stay and participate in the meeting unless they declare a conflict of interest in an item, in which case they will not participate or vote on that item.
- The Chair and Deputy Chair will attend pre-agenda briefings and split any other duties outside of meetings, e.g. spokesperson for WWMRC.
- The Chair and Deputy Chair will jointly oversee and co-ordinate all activities of the WWMRC within their specific terms of reference and delegated authority, providing guidance and direction to all members and liaising with Council staff in setting the content and priorities of meeting agendas.
- The Chair and Deputy Chair will be accountable for ensuring that any recommendations from the WWMRC are considered by the Tauranga City Council.

Refer to the position description for the Chair and Deputy Chair for more details.

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- 1 **OPENING KARAKIA**
- 2 **APOLOGIES**
- 3 **PUBLIC FORUM**
- 4 **ACCEPTANCE OF LATE ITEMS**
- 5 **CONFIDENTIAL BUSINESS TO BE TRANSFERRED INTO THE OPEN**
- 6 **CHANGE TO ORDER OF BUSINESS**
- 7 **DECLARATION OF CONFLICTS OF INTEREST**

8 BUSINESS

8.1 Monitoring Upgrade and Technological Review - WWMRC Endorsement

File Number: A18519070

Author: Jim Summers, Environmental Programme Leader

Authoriser: Nic Johansson, General Manager: Infrastructure

PURPOSE OF THE REPORT

1. To seek endorsement of the Monitoring Upgrade and Technological Review (MUTR) 2024 draft report, following the workshop on 18 July 2025.

RECOMMENDATIONS

That the Wastewater Management Review Committee:

- (a) Receives the report titled “Monitoring Upgrade and Technological Review – WWMRC Endorsement and the attached MUTR.
- (b) Endorses the MUTR 2024 draft report.

BACKGROUND

2. Tauranga City Council (TCC) engaged Beca Ltd and Boffa Miskell in April 2024 to prepare the 2019–2024 MUTR. As required by Condition 20.2, the report must be developed in consultation with iwi groups identified by the Wastewater Management Review Committee (WWMRC).
3. In response to feedback from tangata whenua representatives on the WWMRC, a collaborative approach was adopted in place of a separate cultural report. Mārearea was engaged in February 2025 to support this process and has worked closely with Beca to develop the draft MUTR report.
4. The draft report was shared with tangata whenua representatives and TCC staff on 7 July 2025. It will be presented for discussion with the WWMRC at the workshop on 18 July 2025.
5. WWMRC members are not expected to have read the full draft ahead of the workshop, as the intent is to work through the key sections together during the session and confirm collective support for the report.
6. Endorsement from the WWMRC is required to meet the requirement for consultation and to ensure the final report can be submitted to the Bay of Plenty Regional Council (BOPRC) as soon as practical.

ATTACHMENTS

1. **DRAFT MUTR Report 2024 - A18519058**  



Wastewater Treatment Plant Monitoring Upgrade and Technology Review Report (2019 – 2024)

Prepared for Tauranga City Council
Prepared by Beca Limited

11 July 2025



Sensitivity: General

Revision History

Revision N°	Prepared By	Description	Date
1	Petar Druskovich	Working draft for discussion	January 2025
2	Te Rangimārie Williams, Kristina Hermens, Enfys Radley	Draft for TCC and tāngata whenua review	July 2025

Technical Input

Section	Section Name	Prepared By	Reviewed By
1	Introduction	Petar Druskovich/Celia Walker	Kristina Hermens, Te Rangimārie Williams
2	Background	Petar Druskovich/Celia Walker	Kristina Hermens, Te Rangimārie Williams
3	Progress Towards Zero Waste & SmartGrowth Stretch Targets	Petar Druskovich/Celia Walker	Kristina Hermens, Te Rangimārie Williams
4	Technological Advance & Alternatives	John Crawford, Garry Macdonald	Kristina Hermens, Te Rangimārie Williams
5	Performance Review & Consent Compliance	Petar Druskovich /Sharon De Luca	Garrett Hall, Kristina Hermens, Te Rangimārie Williams
6	Legislation & Policy	Petar Druskovich /Keith Frenz Te Rangimārie Williams	Garrett Hall, Kristina Hermens, Te Rangimārie Williams
7	Conclusions, Recommendations & Conditions Review	Kristina Hermens, Te Rangimārie Williams	Kristina Hermens, Te Rangimārie Williams

Document Acceptance

Action	Name	Signed	Date
Prepared by	Petar Druskovich		11/07/25
Reviewed by	Garrett Hall, Kristina Hermens, Te Rangimārie Williams		11/07/25
Approved by	Kristina Hermens, Te Rangimārie Williams		11/07/25
on behalf of	Beca Limited, Mārearea		

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This report has been prepared by Beca on the specific instructions of our Client. It is solely for our Client's use for the purpose for which it is intended in accordance with the agreed scope of work. Any use or reliance by any person contrary to the above, to which Beca has not given its prior written consent, is at that person's own risk.



DRAFT MTR Report 2024 | 3258505-1284743063-12334 | 11/07/2025 | i

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| Executive Summary |

Executive Summary

The Wastewater Treatment Plant Monitoring Upgrade and Technology Review Report (**MUTR**) is an opportunity provided every five years for Tauranga City Council (TCC), tāngata whenua partners, and key stakeholders to consider and assess the effective operation of the Tauranga wastewater system for a number of factors – consent compliance, review of sampling and monitoring data, progress towards positive environmental outcomes, alignment with the latest technological changes, and the implications of legislative and policy changes on the wastewater scheme. This review gives an overarching view of the wastewater systems and enables the identification of areas for improvement to make sure the system is operating as efficiently and effectively as possible.

Contrary to previous MUTR reports, this report has been prepared in collaboration with a tāngata whenua appointed cultural values technician, and as such, cultural oversight is integrated into the MUTR. Such an approach upholds a Te Tiriti partnership between TCC and tāngata whenua leading to better cultural insights throughout the MUTR.

Key conclusions of this MUTR include:

- Ensuring work programmes are aligned and up to date. For example, considering whether the “progress towards zero waste” and achieving SmartGrowth Stretch Targets are outdated and should be brought in line with more recent work such as that being undertaken on the Wastewater Programme Business Case.
- Identifying that whilst monitoring is undertaken of the quality of discharges to the environment from the wastewater system, there is often no standards in place or no requirement to respond to exceedances of general standards. This can result in a lack of understanding of effects and little or no remediation of effects.
- A need to stay flexible to adapt to central government changes as they relate to wastewater – key to adaptation is the need to maintain strong relationships with tāngata whenua and key stakeholders to take a coordinated approach to changes.
- Two distinct issues that require prioritisation is the need to review the effectiveness of the Environmental Mitigation and Enhancement Fund which has had no allocations since 2013, as well as the need to reach agreement between tāngata whenua and TCC on the future use of Pond 1 now that it is no longer being used for sludge.

A key recommendation to ensure the environmental effects of the wastewater system are understood and effects are addressed, is a Kaitiaki Monitoring Plan. This has been a recommendation in past MUTR processes and should be a priority outcome for TCC to progress with tāngata whenua. A sample Kaitiaki Monitoring Plan is provided in Appendix F and this is being further developed with tāngata whenua.

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| Executive Summary |

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Appendix B – Resource Consents

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Appendix D – Performance Review Summary Statistics

Appendix E – Overall Conclusion and Recommendations by Condition

Appendix F - Sample Kaitiaki Monitoring Plan

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[| List of Abbreviations |](#)

List of Abbreviations

Abbreviation	Definition
ADF	Average Daily Flow
ANZECC	Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000
As	Arsenic
BOD ₅	Biochemical Oxygen Demand (including nitrogenous oxygen demand) over 5 Days
cBOD ₅	Carbonaceous BOD ₅
BOPRC	Bay of Plenty Regional Council
CCTV	Closed-Circuit Television
Cd	Cadmium
cfu	Colony Forming Units
CH ₄	Methane
COD	Chemical Oxygen Demand
Cr	Chromium
Cu	Copper
DO	Dissolved Oxygen
DRP	Dissolved Reactive Phosphorus
Ent	Enterococci
F/M ratio	Food to Microorganism Ratio - Degree of Starvation of The Microorganisms
FTW	Floating Treatment Wetland
Hg	Mercury
HST Blower	High Speed Turbo Blower
I/I	inflow and infiltration
KPI	Key Performance Indicators
LTP	Long Term Plan
MfE	Ministry for Environment
MPN/100ml	Most Probable Number per 100 millilitres
NO ₃ -N	Nitrogen Nitrate, Nitrate Nitrogen
NES	The National Environmental Standards for Air Quality
NH ₄ -N	Ammonium-N, Total Ammoniacal Nitrogen
Ni	Nickel
NIWA	National Institute of Water and Atmospheric Research
NPS-FM	National Policy Statement for Freshwater Management 2014
OM _{feed}	Organic Matter
Pb	Lead
PS	Pump Station
RAS	Return Activated Sludge
RC	Resource Consent
RMA	Resource Management Act
SCADA	Supervisory Control And Data Acquisition
SS	Suspended Solids
SVI	Sludge Volume Index

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[| List of Abbreviations |](#)

Abbreviation	Definition
TCC	Tauranga City Council
TKN	Total Kjeldahl Nitrogen
TSS	Total Suspended Solids
UV	Ultraviolet
VS	Volatile Solids
WAS	Waste Activated Sludge
WMMP	Waste Management and Minimisation Plan
WRRF	Wastewater Resource Recovery Facilities
WRRP	Wastewater Resource Recovery Plants
WWTP	Wastewater Treatment Plant
Zn	Zinc

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| Introduction |

1 Introduction

Tauranga City Council (TCC) has commissioned Beca to undertake an independent review of the performance and level of consent compliance of the Chapel Steet and Te Maunga Wastewater Treatment Plants (WWTPs). Boffa Miskell has been engaged to assess the marine ecological aspects. Mārearea has been engaged by tāngata whenua representatives of the Wastewater Management Review Committee (WMRC) to provide inputs to this report.

1.1 Purpose

The purpose of this Monitoring, Upgrade, and Technical Review (MUTR) report is to review TCC's performance and compliance with its wastewater consents from 2019 – 2024. This report is required under condition 20 of consent 62878 issued by the Bay of Plenty Regional Council (BOPRC). This consent requires that an assessment such as this be produced every five years which at a minimum addresses the following:

- Progress towards TCC's objective of "towards zero waste"
- Progress in adoption or promotion of SmartGrowth Stretch Targets
- Technological changes and advances in relation to wastewater management, treatment and disposal and beneficial re-use technologies which may be relevant to the ongoing operation of the Wastewater Scheme, including the availability of alternatives to the current waterborne wastewater system such as waterless toilet systems.
- The results and associated assessment of TCC's sampling monitoring undertaken in accordance with the resource consents, including the adequacy and scope of such monitoring and sampling.
- Ongoing compliance with the requirements of all relevant resource consents particularly in relation to any reported non-compliance with consent conditions.
- The implications of any relevant changes in legislation or policy relevant to the ongoing operation or compliance of the Wastewater Scheme, including standards relevant to receiving environments affected by the Wastewater Scheme.
- The cost of any potential technological changes having regard to the best practicable option for addressing the relevant issue.

Consent 62878 also specifies that the:

- WMRC should make recommendations to TCC in relation to the independent consultant to be appointed to undertake the MUTR report.
- MUTR be prepared in consultation with the WMRC, BOPRC and any key stakeholders or iwi groups identified by the WMRC.
- Tangata whenua may prepare a paper for submission to the independent consultant on the outcomes of any cultural monitoring or any other issue relevant to the operation of the permits.

For the past two MUTR reports, the associated cultural report has sat alongside and within the appendix as its own discrete document. At a WMRC meeting held on 20 March 2024, it was agreed that a different approach would be taken for the 2024 MUTR, and there would be more integration between the MUTR and cultural report.

1.2 Sustainability Factors

Since the comprehensive wastewater consent was granted by BOPRC to TCC in 2006, there has been increased focus in New Zealand on the following sustainability factors which influence the planning and operation of key wastewater infrastructure:

- Climate Change Mitigation (e.g. greenhouse gas emissions, carbon reduction, energy management)
- Resilience to natural hazards, including climate change adaptation

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| Introduction |

- Te Mana o te Wai

This report reviews TCC's progress in considering these factors in the planning and operation of its wastewater treatment plants. This provides an assessment against national infrastructure planning documents and assurance to the WMRC and BOPRC that TCC is acting and planning in accordance with these factors.

1.3 Previous Reports

The following previous MUTR reports have been prepared under condition 20 of consent 62878 and submitted to BOPRC.

- Wastewater Monitoring, Upgrade and Technology Review. Tauranga, City, Andrew Stewart. February 2011.
- Tauranga City Council Wastewater Treatment Plan Monitoring Upgrade and Technology Review Report (2011-2014), CH2M Beca, March 2016.
- Wastewater Treatment Plant Monitoring Upgrade and Technology Review Report (2014 – 2019), CH2M Beca, Boffa Miskell, 2020.

1.4 Report Development Methodology

Beca Ltd and Boffa Miskell were engaged by TCC to prepare the MUTR report (2019–2024) in April 2024.

According to Condition 20.2, the MUTR must be prepared in consultation with iwi groups identified by the WMRC. Tangata whenua can also submit a paper to the independent MUTR consultants (Beca and Boffa Miskell) on the results of any cultural monitoring or other issues relevant to the operation of the consents. Previously, cultural reports were separate documents that reviewed the completed MUTR. Following discussions held in July and November 2024, WMRC tāngata whenua representatives decided to collaborate with Beca on preparing the MUTR, rather than producing a separate report.

In February 2025, Mārearea was engaged by tāngata whenua representatives on the WMRC to contribute to this report.

Between April and June, Beca and Mārearea worked together to review and update the draft MUTR report.

A draft version of the report was presented to tāngata whenua and TCC staff on 7 July 2025 and then discussed further with the WMRC on 18 July 2025.

The aim is to submit the final MUTR report to BOPRC by 31 July 2025.

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| Introduction |

1.5 Outline of Report

The table below provides a summary of what each section in this report covers.

Table 1. Overview of the MUTR 2024 report structure

Chapter	Description
1. Introduction	Outlines the purpose, background, and scope of the MUTR report, including consultation processes and key contributors.
2. Background	Providing the historical context and consenting background of the Tauranga City wastewater network; this section describes the city's wastewater infrastructure, service coverage, and operational aspects.
3. Progress Towards Zero Waste and SmartGrowth Stretch Targets (Conditions 20.1(a) and (b) of Consent 62878)	Describes how TCC is fulfilling its permit requirements for waste minimisation and incorporating SmartGrowth Stretch Targets. It highlights recent progress towards achieving zero waste and explains how these targets are being embedded in operations.
4. Technological Advance and Alternatives (Conditions 20.1(c) and (g) of Consent 62878)	Focuses on technological changes and advances in wastewater management, treatment, disposal, and beneficial re-use technologies relevant to the wastewater scheme. It updates the wastewater processes and technologies mentioned in the 2020 MUTR report, introduces new technological advances since 2020, and examines beneficial re-use technologies and alternatives. This section also comments on costs of technological changes.
5. Performance Review and Consent Compliance (Conditions 20.1(d) and (e) of Consent 62878)	Reviews performance (per sampling and monitoring results) and compliance with consent conditions, and any incidents or improvements during the reporting period.
6. Legislation and Policy (Condition 20.1(f) of Consent 62878)	Describes relevant legislation and policy changes in last five years and potential implications
7. Conclusions and Recommendations	Beca and Mārearea conclusions and recommendations

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| Background |

2 Background

2.1 History of Consenting the Wastewater Network

The Tauranga City wastewater network was constructed in the mid-nineteen sixties and has gradually evolved with the city's development. (**Error! Reference source not found.**) **Appendix A** contains an overview of the history of the Chapel Street and Te Maunga WWTPs through the review of resource consents related to the WWTPs. The history is not complete as not all consents could be found. This history was requested by tāngata whenua who have had limited involvement in decision-making relating to the wastewater network since its inception and as such provides an opportunity for tāngata whenua to better understand what has occurred.

2.2 Overview of Wastewater Network

TCC's wastewater collection, treatment, and disposal systems serve all properties in commercial/industrial zones and almost 100% of all properties in residential zones. The percentage of residential dwellings within Tauranga City not serviced by TCC's wastewater system is estimated to be around 2%¹ being rural and rural/residential properties. TCC also receives flows from the townships of Omokoroa and part of Te Puna.

The network conveys wastewater to the City's two wastewater treatment plants for treatment. The WWTPs are located at Chapel Street and off Truman Lane at Te Maunga where wastewater is biologically/secondary treated (details below). **Error! Reference source not found.** and Figure 2 below show the components of Tauranga's wastewater system, including pipes, rising/transfer mains, wastewater pump stations, the two WWTPs and the ocean outfall pipeline.

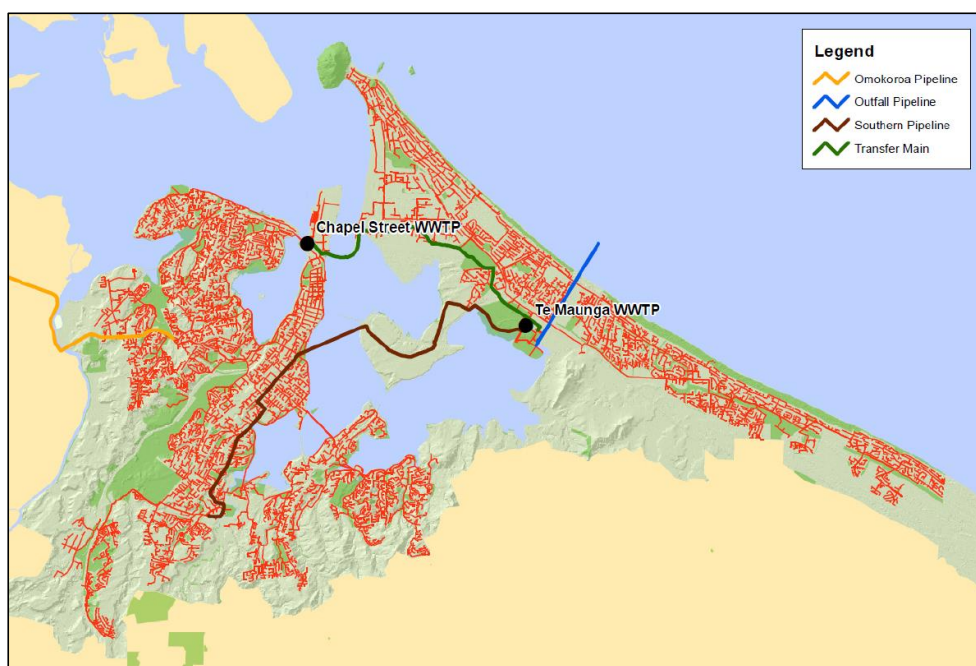


Figure 1. Tauranga City wastewater system overview.

¹ Tauranga City Council (2024). Wastewater Asset Management Plan 2024 - 2034

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| Background |

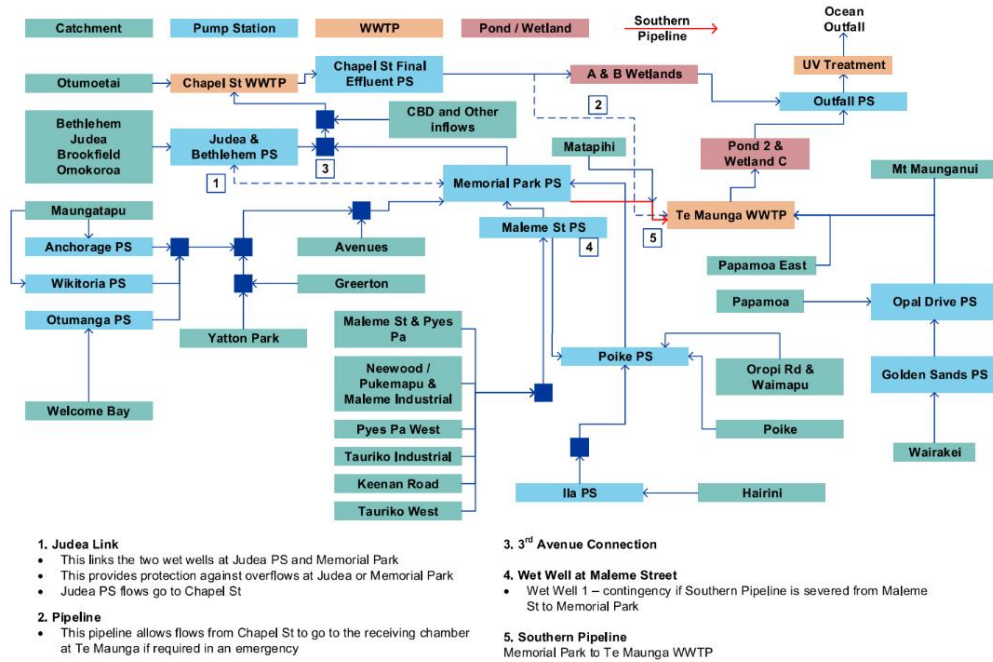


Figure 2. Tauranga Trunk Wastewater Network

Treated wastewater from Chapel Street WWTP is pumped to Te Maunga WWTP via a transfer pipeline in the harbour bridge. Once received at Te Maunga WWTP, flows are passed through two wetlands (Wetland A + Wetland B).

Treated wastewater from the Te Maunga WWTP passes through flow balancing/storage ponds and wetlands. (Ponds 2 + Wetland C). Pond 1 is no longer used for sludge storage but is currently used for the purposes of flow balancing during major storm events.

Finally, flow from both treatment plants are combined and wastewater is tertiary treated via ultraviolet (UV) disinfection. The outfall pump station pumps treated flows to the Pacific Ocean through a 950m long marine outfall pipeline off Papamoa Beach.

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| Background |

2.3 Chapel Street WWTP

Chapel Street WWTP (Figure 3) was built in 1969 and has undergone regular upgrades and additions. The plant currently serves a residential population of approximately 48,000 in Tauranga and 6,000 from the Omokoroa (WBoPDC) pipeline, providing services to a total population of around 54,000.

The Chapel Street WWTP uses a process of pre-treatment, primary clarification, flow balancing and secondary treatment utilising contact stabilisation and clarification. There are also facilities for digestion of sludge as a by-product of the treatment process.

In normal circumstances, final effluent flows are pumped and transferred (via the transfer pipeline) to the Te Maunga WWTP.

In the case of emergency, where final effluent flows exceed the capacity of the transfer pump to Te Maunga WWTP, final effluent is treated with ultraviolet (UV) disinfection and is discharged into the harbour. The UV facilities were upgraded in 2023.

The average dry weather capacity of Chapel Street WWTP is 16,300 m³/day which corresponds to a load capacity of 4,900 kg/d for biochemical oxygen demand (BOD) and 6,100 kg/d for total suspended solids (TSS).

Capacity upgrades are planned to enhance sludge digestion, potentially increasing the treatment plant's overall capacity (average daily flow).



Figure 3. Aerial view of the Chapel Street wastewater treatment plant with components labelled

2.4 Te Maunga WWTP

Te Maunga WWTP (Figure 4) was commissioned in 1996 to address Tauranga's growing population and wastewater needs. Like Chapel Street, Te Maunga WWTP has been steadily upgraded since its inception. It

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currently consists of pre-treatment and secondary treatment comprising extended aeration, secondary clarification and sludge thickening and dewatering. In 2024, the target of 100% of dewatered biosolids being diverted from landfill to vermicomposting was achieved.



Figure 4. Aerial image of Te Maunga wastewater treatment plant with labelled components.

2.4.1 Te Maunga Wetlands, Ponds and UV Disinfection

As noted above, flows from Chapel Street WWTP pass through Wetlands A and B at Te Maunga WWTP (prior to UV treatment and discharge via the ocean outfall) (Refer to Figure 5). The wetlands reduce nutrient levels and biological oxygen demand of the treated wastewater.

Te Maunga WWTP flows to Pond 2, which provides storage/flow balancing and prevent overflows to the harbour. This means downstream assets i.e. the ocean outfall infrastructure, do not have to be sized/cater for peak flows observed at the inlet to the WWTP.

Flows from both plants are combined immediately upstream of the outfall pump station, followed by UV disinfection, before discharge to the Pacific Ocean via a 950m long marine outfall pipeline off Papamoa Beach.

Pond 1 was used for sludge storage and stabilisation and was regularly de-sludged until 2019 when a new thickening and dewatering plant was completed. The final desludging of Pond 1 took place between August 2022 and March 2024, removing approximately 11,000 tonnes of sludge. During heavy rain, flows can be diverted to Pond 1 to prevent overflows to the harbour.

The future use of Pond 1 is still to be decided between tāngata whenua and TCC.

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Figure 5. Aerial image of Te Maunga treatment ponds, wetland, outfall PS and UV plant.

2.5 Ocean Outfall Infrastructure

The ocean outfall infrastructure (

Figure 6) consists of an outfall pump station, landward section, beach section and marine section.

The outfall pump station has three pumps operating on a duty/duty/assist basis.

The landward section has a 1,200 mm diameter pipeline, upgraded from 600 mm in 2022 to increase the outfall capacity to about 580 L/s (for future growth).

The section from the landward part to the beach manhole has a 600 mm diameter pipeline. In 2023, this part of the pipeline was renewed using CIPP lining due to its age and to reduce the risk of leaks or failures under high pressure.

The marine section has a 630 mm diameter pipeline that extends approximately 950 metres offshore from Papamoa Beach. This part includes a 30 metre diffuser section at the end with several 'port holes' for dispersing the effluent.

The Long-term Plan 2024-2034 includes proposed upgrades to boost the system's capacity to 850 L/s. These upgrades involve potentially slip lining the marine section, enhancing the UV treatment plant, improving the outfall pump station and the gravity main from Wetland C to the outfall pump station.

The aim of slip lining the marine outfall is to delay the major capital expense of a new 1,200mm diameter marine section and a new outfall pump station. However, the feasibility of slip lining the marine section still needs to be confirmed, including an understanding of the construction and operational risks.

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Figure 6. Outfall pump station and outfall pipe. Colours representing the different sections of pipe.

2.6 Upgrade Works Since 2019

The following upgrade works have been completed or are underway at Chapel St and Te Maunga WWTP since the last MUTR report in 2019.

Table 2. Upgrade Works Since 2019

Location	Work Description	Year	Status	Completion Date
Te Maunga	New sludge processing facility	2019	Completed	
Chapel Street	Biofilter renewal	2021	Completed	
Chapel Street	New UV disinfection system	2022	Completed	
Te Maunga	Additional aeration unit (Blower 4)	2022	Completed	
Te Maunga	Bioreactor 2 construction	2024	Underway	2027/28
Te Maunga	Bioreactor 3 early concept design	2024	Underway	2033/34
Te Maunga	Clarifier 3 construction	2024	Underway	2028/29
Te Maunga	New Inlet Works preliminary design	2024	Underway	2031/32
Te Maunga	Aeration Upgrade Stage 1	2025/26	Planned	2028/29

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Location	Work Description	Year	Status	Completion Date
Te Maunga	Picket fence thickener	2025/26	Planned	2027/28
Chapel St	Recuperative Thickening	2025/26	Planned	2028/29
Te Maunga	Electrical Power upgrade	2025/26	Planned	2028/29
Chapel St	Building upgrades	2026/27	Planned	2027/28
Both	Measuring carbon emissions	2026/27	Planned	2026/27
Te Maunga	Outfall pump station/marine outfall upgrade	2027/28	Planned	2033/34
Te Maunga	Clarifier 4	2029/2030	Planned	2033/34

2.7 Future Flows

Error! Reference source not found. shows the predicted average daily flows to Chapel St and Te Maunga WWTPs from 2024 to 2064. These projections have been provided by Hydraulic Analysis NZ Limited (HAL)². The commissioning of the southern pipeline in 2018 allowed for the transfer of flows from the Memorial Park Pump Station to Te Maunga WWTP. Despite this, the flow projections suggest that Chapel St WWTP will likely exceed its current capacity (16,300 m³/day) by 2064 (Figure 7) due to population growth.

Some of the network's wastewater 'catchments' can only be conveyed to Chapel St WWTP (e.g. Omokoroa and parts of the CBD). If growth in these 'Chapel St only catchments' exceed predicted estimates (generating higher than assumed flows/loads), then network changes would be required to transfer more flows and loads away from Chapel St WWTP.

Studies are currently underway by TCC to explore options for future servicing (TCC's Wastewater Programme Business Case) and service delivery (Our Water Future).

Table 3. Future WWTP average daily flows predicted to 2064 (Wastewater Treatment 10- and 30-Year Investment Plan 2024 – 2054, Beca, 2023).

Year	Te Maunga WWTP (m ³ /day)	Chapel Street WWTP (m ³ /day)
2024	13,992	12,342
2029	14,707	13,221
2034	15,532	14,099
2044	17,093	15,304
2054	18,326	15,962
2064	18,923	16,660

² HAL (2023a): Strategic Wastewater Network Modelling System Performance Assessment

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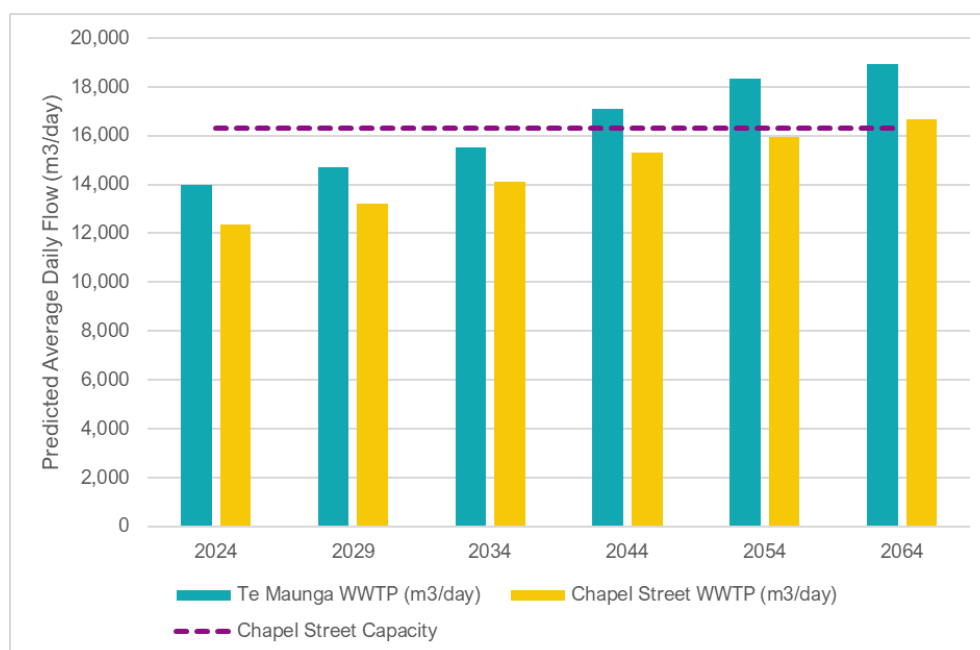


Figure 7. Te Maunga and Chapel St WWTP flow projections to 2064.

2.8 Wastewater Programme Business Case (PBC)

TCC initiated a business case in late 2020, with the project scope being to decide the future of the Te Maunga ocean outfall. The condition and capacity of the marine section of the outfall require significant investment to provide adequate resilience and to service substantial growth.

Although identifying tangible future options for the Te Maunga outfall was central, other drivers suggested a broader approach was necessary:

1. Consenting improvements to the Te Maunga outfall will require a comprehensive alternatives assessment, including alternative methods of discharge and receiving environments.
2. Confirming a future outfall capacity would need to be in the context of the capacity of the entire wastewater scheme.
3. Sector changes and TCC commitment to the (sub-regional) SmartGrowth Strategy required a sub-regional lens to be incorporated.

Importantly, TCC considered changing environmental settings and the need to better reflect tāngata whenua cultural values in wastewater management as key. Recognising the need to take a system view, TCC decided to expand the scope to a Wastewater Programme Business Case.

The objectives are to enable growth and development, improve environmental performance, strengthen partnerships with tāngata whenua and improve system resilience.

An important aspect of the PBC process is the involvement of tāngata whenua, who, as members of the PBC Project Team (in their capacity representing those iwi and hapū on the WMRC), have worked alongside staff and technical specialists to develop the PBC since its initiation.

PBC findings will guide strategic planning, future business cases, and resource consents, and are expected to set the foundation for long-term wastewater planning in Tauranga.

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To date the PBC has provided the following benefits to TCC (and other stakeholders):

1. Established comprehensive (Council-approved) foundations for the City's future wastewater investment programme, including; defined issues with existing arrangements, investment objectives, benefits, programme scope, key service requirements and investment criteria.
2. A vehicle for integrated investment prioritisation across Tauranga's wastewater network and treatment plants, where projects are assessed against the same criteria, reflecting the objectives of the PBC.
3. A key mechanism for collective consideration of tāngata whenua concerns (and aspirations) regarding the City's wastewater scheme and, where appropriate, the way forward for addressing these concerns. This has provided an opportunity for Tauranga to show what great looks like in terms of collaborative, long-term planning with its tāngata whenua partners.
4. Tangible servicing options (in terms of system Configuration and Scale) for future wastewater arrangements in the City and (adjacent) sub-regional areas for the next 50 and 100 years; considering collaboration opportunities with the Western Bay district where appropriate and enabling Council's SmartGrowth delivery commitments.
5. Insights and tangible options from a range of strategic studies, a number of which will inform both Council and sub-regional plans. To date, these have included:
 - a. A study of wastewater growth servicing scenarios in the City and relevant sub-region, reflecting adopted SmartGrowth settings and Key Service Requirements agreed for the PBC. This study provides Council with an integrated view of network and treatment plant arrangements under multiple scenarios, and indicative timings as to where and when capacity will be reached. It also provides a range of options for future Te Maunga ponds and outfall arrangements. Importantly, the options have been developed to address a range of agreed PBC key service requirements (in addition to enabling growth and development). This study has been scoped in collaboration with WBoPDC staff and TCC Our Water Future representatives to ensure the most up to planning data is reflected and connectivity with wider initiatives is maintained.
 - b. A study into potential **treated wastewater recycling** options for the City. This has provided TCC a view of the type and scale of opportunity available to reuse a valuable resource, and the impact such reuse can have on wastewater flows and assets.
 - c. A study into **wastewater treatment technologies** and applicability to various future treatment plant arrangements (including those for Te Maunga and Chapel St plants). This has provided Council with a view of how different technologies impact Council's ability to meet recent changes to wastewater environmental standards, improve treatment capacity at its treatment plants, and potentially support elevated effluent treatment desired by tāngata whenua.
 - d. A study into the **resilience** of existing TCC wastewater assets (including WWTPs) to natural hazards, including climate change effects. Scoped within the PBC, this study has been delivered by Council staff, leveraging their expertise to provide a view of exposure levels of existing TCC wastewater infrastructure to natural hazards; including both critical network and WWTP assets. This study progresses Council's delivery of Priority Action 36 of its adopted Te rautaki āhuarangi mō Tauranga / Tauranga Climate Action and Investment Plan due to its inclusion of wastewater treatment plant sites. It can also inform future Our Water Future work to deliver a climate change risk assessment on three waters assets, at such time as this work progresses.

2.9 Resource Consents

This section covers resource consents for the wastewater scheme and activities at Chapel St and Te Maunga WWTPs. Most consents, granted by BOPRC in 2005/06, have a 35-year duration.

At the time of approval, these wastewater consents allowed for the following changes to the system:

- An increase in the average daily discharge of treated wastewater via the ocean outfall from 23,000m³/day to 50,000m³/day

9 DISCUSSION OF LATE ITEMS

10 CLOSING KARAKIA