



**CENTRAL
HAWKE'S BAY**
DISTRICT COUNCIL



Finance and Infrastructure Committee Meeting Agenda

Thursday, 8 October 2020

9:00am

Council Chamber

28-32 Ruataniwha Street, Waipawa

Together we Thrive! E ora ngātahi ana!

Order Of Business

The meeting will commence at 9am with opening Karakia followed by the Council waiata.

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- 1 **APOLOGIES**
- 2 **DECLARATIONS OF CONFLICTS OF INTEREST**
- 3 **STANDING ORDERS**

RECOMMENDATION

THAT the following standing orders are suspended for the duration of the meeting:

- 21.2 Time limits on speakers
- 21.5 Members may speak only once
- 21.6 Limits on number of speakers

And that Option C under section 22 General procedures for speaking and moving motions be used for the meeting.

Standing orders are recommended to be suspended to enable members to engage in discussion in a free and frank manner.

- 4 **CONFIRMATION OF MINUTES**

Finance and Infrastructure Committee Meeting - 13 August 2020

RECOMMENDATION

That the minutes of the Finance and Infrastructure Committee Meeting held 13 August 2020, as circulated, be confirmed as true and correct.

**MINUTES OF CENTRAL HAWKES BAY DISTRICT COUNCIL
FINANCE AND INFRASTRUCTURE COMMITTEE MEETING
HELD AT THE COUNCIL CHAMBER, 28-32 RUATANIWHA STREET, WAIPAWA
ON THURSDAY, 13 AUGUST 2020 AT 09:00AM**

PRESENT: Cr Brent Muggeridge (Chair)
Mayor Alex Walker
Cr Tim Aitken
Deputy Mayor Kelly Annand
Cr Gerard Minehan
Kaiārahi Matua Roger Maaka
Cr Jerry Greer
Cr Kate Taylor
Cr Exham Wichman

IN ATTENDANCE: Monique Davidson (Chief Executive)
Joshua Lloyd (Group Manager, Community Infrastructure and Development)
Doug Tate (Group Manager, Customer and Community Partnerships)
Brent Chamberlain (Chief Financial Officer)
Darren De Klerk (Director Projects and Programmes)
Bridget Gibson (Governance and Support Officer)
Shawn McKinley (Land Transport Manager)

The meeting opened at 9:05am with karakia led by Dr Maaka – Kaiārahi Matua, followed by Council waiata.

1 APOLOGIES

Nil.

2 DECLARATIONS OF CONFLICTS OF INTEREST

Nil.

3 STANDING ORDERS

COMMITTEE RESOLUTION

Moved: Cr Gerard Minehan

Seconded: Cr Tim Aitken

THAT the following standing orders are suspended for the duration of the meeting:

- 21.2 Time limits on speakers
- 21.5 Members may speak only once
- 21.6 Limits on number of speakers

And that Option C under section 22 General procedures for speaking and moving motions be used for the meeting.

Standing orders are recommended to be suspended to enable members to engage in discussion in a free and frank manner.

CARRIED

4 CONFIRMATION OF MINUTES

COMMITTEE RESOLUTION

Moved: Deputy Mayor Kelly Annand

Seconded: Cr Jerry Greer

That the minutes of the Finance and Infrastructure Committee Meeting held on 18 June 2020 as circulated, be confirmed as true and correct.

CARRIED

5 REPORT SECTION

5.1 FINANCE AND INFRASTRUCTURE COMMITTEE MONITORING REPORT

PURPOSE

The purpose of this report is to present to the Finance and Infrastructure Committee an update on key priorities.

COMMITTEE RESOLUTION

Moved: Cr Kate Taylor

Seconded: Deputy Mayor Kelly Annand

That, having considered all matters raised in the report, the report be noted.

CARRIED

5.2 RESOLUTION MONITORING REPORT

PURPOSE

The purpose of this report is to present to the Committee the Finance and Infrastructure Resolution Monitoring Report. This report seeks to ensure the Committee has visibility over work that is progressing, following resolutions from Council.

COMMITTEE RESOLUTION

Moved: Cr Jerry Greer

Seconded: Cr Exham Wichman

RECOMMENDATION

That, having considered all matters raised in the report, the report be noted.

5.3 2018-19 RCA REPORT**PURPOSE**

The purpose of this report is provide the Committee with the results of the 2018-19 Road Controlling Authority (RCA) report created by the Road Efficiency Group (REG) prepared on behalf of Local Government New Zealand and Waka Kotahi, New Zealand Transport Agency (NZTA).

COMMITTEE RESOLUTION

Moved: Cr Gerard Minehan

Seconded: Mayor Alex Walker

That, having considered all matters raised in the report, the report be noted.

CARRIED

Officers to encourage road safety promotion in CHB in collaboration with external organisations.

5.4 RATES REMISSION, POSTPONEMENT, DISCOUNTS, AND COLLECTION POLICY**PURPOSE**

The matter for consideration by the Council is the adoption of an overarching rating policy.

COMMITTEE RESOLUTION

Moved: Mayor Alex Walker

Seconded: Cr Tim Aitken

That having considered all matters raised in the report:

- a) That the report titled "Rates Remission, Postponement, Discounts, and Collection Policy" be received.
- b) That the policy "Rates Remission, Postponement, Discounts, and Collection Policy" be adopted, and the existing 14 individual rating policies this replaces be deleted.

CARRIED

5.5 ANNUAL EMERGENCY EVENT WORK PROCUREMENT PLAN

PURPOSE

The matter for consideration by the Council is the procurement of physical works to repair roading assets following weather and emergency events.

COMMITTEE RESOLUTION

Moved: Deputy Mayor Kelly Annand

Seconded: Mayor Alex Walker

That having considered all matters raised in the report:

- a) That the Committee adopt the attached procurement plan for road repairs following weather and emergency events.

1. CARRIED

Mr Lloyd and Mr McKinley presented the report.

Officers stated that NZTA has seen the procurement plan and endorse it.

Pre-qualifying process is open ended therefore new contractors are not prohibited from qualifying.

We currently have 5 NZTA credited consultants/contractors. Wording in the framework to be clarified around current consultants to the Council.

The maximum emergency procurement contract amount has not been capped at this time, advice was taken from the table as to a potential cap being specified in the Plan. If work is over the Chief Executive's 1 million dollar delegation to approve procurement, delegations go to the Finance and Infrastructure Committee, and over 4 million dollars to the Council table for approval.

More detail surrounding the procurement plan will be brought to the Committee at a future meeting.

5.6 CHB WASTEWATER PROGRAMME

GOVERNANCE GROUP (TERMS OF REFERENCE)

PURPOSE

The matter for consideration by the Council is adopting the Wastewater Project Governance Group (PGG) terms of reference to support the commitment to increase the level of detail and oversight of the wastewater programme of works.

COMMITTEE RESOLUTION

Moved: Cr Brent Muggeridge

Seconded: Mayor Alex Walker

That having considered all matters raised in the report:

- a) The Finance and Infrastructure Committee adopt the Wastewater Project Governance Group terms of reference.

CARRIED

The governance group would receive information from the project control group and decide on what the final business case to be presented to Council will look like, providing oversight and confidence of the project's journey.

The meetings will not be public as they are operational decision-making meetings. Any decisions needing to be made outside the delegations of the group would be brought to Committee or Council.

Advice will be acquired from Kaiārahi Matua Maaka as to what level of tangata whenua representation is needed on the PGG.

5.7 KEY PROJECT STATUS REPORT - PORANGAHAU TO WIMBLEDON ROADS PGF PROGRAMME

PURPOSE

To add a level of oversight on this significant programme for CHBDC, this report aims to inform and keep Council and the community updated on the progress of this important externally funded project.

COMMITTEE RESOLUTION

Moved: Cr Jerry Greer

Seconded: Cr Exham Wichman

That, having considered all matters raised in the report, the report be noted.

CARRIED

As the development progresses there will be ongoing communication with those of the community affected by the work. An interactive map of the work will be provided via the CHBDC website as part of the communications plan for this project.

RESOLUTION TO EXCLUDE THE PUBLIC**2. COMMITTEE RESOLUTION**

3. Moved: Cr Kate Taylor

4. Seconded: Cr Jerry Greer

5. That the public be excluded from the following parts of the proceedings of this meeting.

6. The general subject matter of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48 of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48 for the passing of this resolution
6.1 - Water and Tradewaste Rates Remission due to water leak	s7(2)(b)(ii) - the withholding of the information is necessary to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information	s48(1)(a)(i) - the public conduct of the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under section 6 or section 7
6.2 - Procurement Plan - PGF Programme (Design and Investigations)	s7(2)(h) - the withholding of the information is necessary to enable Council to carry out, without prejudice or disadvantage, commercial activities s7(2)(i) - the withholding of the information is necessary to enable Council to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations)	s48(1)(a)(i) - the public conduct of the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under section 6 or section 7
6.3 - Strategic Property Matters	s7(2)(h) - the withholding of the information is necessary to enable Council to carry out, without prejudice or disadvantage, commercial activities s7(2)(i) - the withholding of the information is necessary to enable Council to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations)	s48(1)(a)(i) - the public conduct of the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under section 6 or section 7

7. CARRIED

The meeting broke for a refreshment break at 10:28am.

The meeting resumed in the Public Excluded forum at 10:52am.

6 DATE OF NEXT MEETING

COMMITTEE RESOLUTION

Moved: Deputy Mayor Kelly Annand

Seconded: Cr Kate Taylor

THAT the next meeting of the Finance and Infrastructure Committee be held on 8 October 2020.

CARRIED

7 TIME OF CLOSURE

The Meeting closed at 12:18pm.

The minutes of this meeting were confirmed at the Finance and Infrastructure Committee Meeting held on 8 October 2020.

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CHAIRPERSON

5 REPORT SECTION

5.1 FINANCE AND INFRASTRUCTURE COMMITTEE MONITORING REPORT

File Number: COU1-1410
Author: Monique Davidson, Chief Executive
Authoriser: Monique Davidson, Chief Executive
Attachments: Nil

PURPOSE

The purpose of this report is to present to the Finance and Infrastructure Committee an update on key priorities.

RECOMMENDATION

That, having considered all matters raised in the report, the report be noted.

SIGNIFICANCE AND ENGAGEMENT

This report is provided for information purposes only and has been assessed as not significant.

BACKGROUND

Following the 2019 Triennial Local Body Elections, Council took the time to reset Council priorities, and agree on priorities for Committees.

The role of the Finance and Infrastructure Committee is:

- To assist Council to oversee financial and non-financial performance, including the delivery of the Council's Capital Programme.
- To monitor Council activities and services performance against budget, Annual Plans, the Long Term Plan, Annual Reports and corporate and financial policies.
- The Finance and Infrastructure Committee also receives enforcement and compliance performance activity reporting to ensure financial and non-financial performance oversight of its regulatory functions.
- To provide governance oversight of Council's operational programmes, services, activities and projects related to infrastructural assets.
- To enable the progress of the Council's operational activities, projects and services.

The Finance and Infrastructure Committee has delegations to:

- Develop and adopt plans, projects and policies that advance the Council's vision and goals in relation to its key Financial Strategy and Infrastructure Strategy while complying with the purpose of the Local Government.
- Monitoring the financial and non-financial performance of the organisation with a particular emphasis on the delivery of the capital works programme. Implementation and effectiveness of strategies, plans and policies.
- Specifically monitor and provide oversight of significant projects, including reviewing business cases and agreed on next steps on significant projects.
- The Finance and Infrastructure Committee is responsible for assisting Council in its general overview of procurement and tender activity. The Committee will accept and consider

tenders which exceed the Chief's Executive's delegated authority to approve, for projects approved by Council through an Annual Plan or Long Term Plan. The Committee will make a recommendation to Council on the outcome of a tender process for resolution when above delegations.

- The Finance and Infrastructure Committee has delegation to approve or award contracts beyond the Chief Executive's delegated authority within the parameters of approved AP/LTP Budgets up to \$4 million.
- to establish a special committee, working group or community forum as needed.

The monitoring report which provides an update on the key priorities of the committee is below:

DISCUSSION

Key Priority	Responsible Officer	Progress Update
<ul style="list-style-type: none"> • Lead and monitor the Wastewater Treatment Plan projects for across Central Hawke's Bay. 	Darren de Klerk	A specific Key Project Status Report will be provided to the Finance and Infrastructure Committee at the next meeting to be held 8 October 2020.
<ul style="list-style-type: none"> • Monitor the implementation of #thebigwaterstory 	Darren de Klerk	A specific Key Project Status Report will be provided to the Finance and Infrastructure Committee at the next meeting to be held 8 October 2020.
<ul style="list-style-type: none"> • Complete and lead the Rates Review 	Brent Chamberlain	The public consultation period has now closed on the rates review. This will come back to Council to consider the feedback on the 22nd October
<ul style="list-style-type: none"> • Monitor the implementation and progress of Provincial Growth Fund projects. 	Craig Ireson	A specific Key Project Status Report on the PGF Road Project is presented in this Finance and Infrastructure Committee Agenda – 8 October 2020.
<ul style="list-style-type: none"> • Develop a Land Transport Strategic Framework and ensure governance input into the three-year business plan before NZTA submission. 	Josh Lloyd	The Land Transport Strategic Framework has been adopted and is being implemented within the team, currently providing input into the renewal of Asset Management Plans.
<ul style="list-style-type: none"> • Lead the review of the Financial Strategy and associated policies that input into the Long Term Plan 2021-2031. 	Brent Chamberlain	Most financial policies have now been reviewed and updated. The Financial Strategy has been drafted but is waiting on the finalisation of asset management plans and budgets, before the Strategy can be completed. A draft of the policy will be presented to Finance and Infrastructure on the 8 th October.
<ul style="list-style-type: none"> • Review the current Treasury Policy – Investment, Debt and Liability Management policies. 	Brent Chamberlain	This policy was brought to Council on the 24th of September for endorsement, and now will be included in the LTP for public consultation.

<ul style="list-style-type: none"> Monitor the implementation of the non-rateable income strategic framework. 	Monique Davidson	<p>Considerable effort continues to be given to the attraction of non-rateable income.</p> <p>With the Annual Plan 2020/2021 and Long Term Plan 2021-2031 opportunities will be given to align the work of this strategy with that of other projects.</p> <p>The COVID-19 context has provided considerable opportunity for Council in the acceleration of capital investment to act as an economic stimulus. Council are actively working with the government on seeking external funding to delivery on Council and community priorities. At the time of writing this report, key achievements that align with this framework include funding for Mayors Taskforce for Jobs pilot and beyond, redeployment capital packages, water reform and PGF projects.</p>
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IMPLICATIONS ASSESSMENT

This report confirms that the matter concerned has no particular implications and has been dealt with in accordance with the Local Government Act 2002. Specifically:

- Council staff have delegated authority for any decisions made;
- Council staff have identified and assessed all reasonably practicable options for addressing the matter and considered the views and preferences of any interested or affected persons (including Māori), in proportion to the significance of the matter;
- Any decisions made will help meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses;
- Unless stated above, any decisions made can be addressed through current funding under the Long-Term Plan and Annual Plan;
- Any decisions made are consistent with the Council's plans and policies; and
- No decisions have been made that would alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or would transfer the ownership or control of a strategic asset to or from the Council.

NEXT STEPS

The Finance and Infrastructure Committee will receive an updated monitoring report at its next meeting which will be in 2021. Meeting dates for 2021 are still to be determined.

RECOMMENDATION

That, having considered all matters raised in the report, the report be noted.

5.2 RESOLUTION MONITORING REPORT

File Number: COU1-1410

Author: Monique Davidson, Chief Executive

Authoriser: Monique Davidson, Chief Executive

Attachments: 1. **Committee Resolution Monitoring Report October 2020** [↓](#)

PURPOSE

The purpose of this report is to present to the Committee the Finance and Infrastructure Resolution Monitoring Report. This report seeks to ensure the Committee has visibility over work that is progressing, following resolutions from Council.

RECOMMENDATION

That, having considered all matters raised in the report, the report be noted.

SIGNIFICANCE AND ENGAGEMENT

This report is provided for information purposes only and has been assessed as not significant.

DISCUSSION

The monitoring report is **attached**.

IMPLICATIONS ASSESSMENT

This report confirms that the matter concerned has no particular implications and has been dealt with in accordance with the Local Government Act 2002. Specifically:

- Council staff have delegated authority for any decisions made;
- Council staff have identified and assessed all reasonably practicable options for addressing the matter and considered the views and preferences of any interested or affected persons (including Māori), in proportion to the significance of the matter;
- Any decisions made will help meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses;
- Unless stated above, any decisions made can be addressed through current funding under the Long-Term Plan and Annual Plan;
- Any decisions made are consistent with the Council's plans and policies; and
- No decisions have been made that would alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or would transfer the ownership or control of a strategic asset to or from the Council.

NEXT STEPS

An updated Resolution Monitoring Report will be presented at the next Committee meeting in 2021. Meeting dates for 2021 are still to be determined.

RECOMMENDATION

That, having considered all matters raised in the report, the report be noted.



CENTRAL HAWKE'S BAY

DISTRICT COUNCIL

Finance and Infrastructure Committee Resolution Monitoring Report October 2020

Key	
Completed	
On Track	
Off Track	

Item Number	Item	Council Resolution	Resolution Date	Responsible Officer	Progress Report
5.30	Adoption of Land Transport Strategic Framework	a) That the Finance and Infrastructure Committee adopt with amendments the Land Transport Strategic Framework.	18/06/2020	Josh Lloyd	On Track LT Strategic Framework adopted and being implemented with current focus on incorporating strategic goals into asset management plans and CHBDCs inputs into the Regional Land Transport Plan.
5.40	Waipukurau Second Water Supply Project - status update	That work progresses on the Waipukurau Second Water Supply improvements, consistent with improvement options 2 and 4, noting that no final decision on a preferred option will take place until the outcome of the Crown Infrastructure Partners funding application is known to Council.	18/06/2020	Darren De Klerk	On Track Report coming back to the Finance & Infrastructure Committee on the 8 th October to recommend proceeding with Option 4. Design on items consistent with Option 2 and 4 are progressing whilst we wait for CIP / 3 Waters Reform Funding.

5.50	Kairakau Water Upgrade - options report	<p>That having considered all matters raised in the report</p> <p>1) the Finance and Infrastructure Committee identify Option 2 as the preferred option — to upgrade the Kairakau water treatment plant to:</p> <p>i) meet Drinking Water Standards for New Zealand 2005 (revised 2018);</p> <p>ii) remove roof water from supplying potable water;</p> <p>iii) install restrictors to all properties to control peak demand; and</p> <p>2) That the Finance and Infrastructure Committee endorse upgrading the Kairakau Water Treatment Plant to meet Drinking Water Standards for NZ while developing a Water Safety Plan and the review of the water bylaw.</p> <p>3) That the Committee await formal adoption of an option until the completion of community engagement and review of the existing water bylaw.</p>	18/06/2020	Darren De Klerk	<p>On Track</p> <p>Engagement planned for this month, water safety plan well underway, plan to bring preferred option back later in 2020.</p> <p>Water Safety Plan development in motion, along with planning community engagement for after LTP Pre Engagement and closer to summer when more users are at their homes.</p>
5.12	Key Project Status Report - Wastewater Projects	<p>That, having considered all matters raised in the report;</p> <p>1. That the report be noted.</p> <p>2. That the committee endorses the formation of a project control group and a project governance group to ensure appropriate leadership and oversight is applied to the project.</p> <p>3. That Councillor Brent Muggeridge and Deputy Mayor Kelly Annand be appointed to the project governance group.</p>	18/06/2020	Darren De Klerk	<p>Completed.</p> <p>PGG formed; Terms of Reference were approved at last F&I Committee and meeting planned for 16/10/2020.</p>

5.3 PGF PORANGAHAU TO WIMBLEDON PROGRAMME (PGG TERMS OF REFERENCE)**File Number:** COU1-1410**Author:** Darren de Klerk, 3 Waters Programme Manager**Authoriser:** Monique Davidson, Chief Executive**Attachments:** 1. **Project Governance Group - Terms of Reference** [↓](#)
2. **Project Governance Guidelines** [↓](#)**PURPOSE**

The matter for consideration by the Committee is the adoption of the terms of reference to form a project governance group (PGG) for the Porangahau to Wimbledon Road programme to support the commitment to increase the level of detail and oversight across the programme of works.

RECOMMENDATION FOR CONSIDERATION

That having considered all matters raised in the report:

- a) That the Finance and Infrastructure Committee adopt the PGF Porangahau to Wimbledon programme terms of reference.**

EXECUTIVE SUMMARY

To implement greater levels of management and oversight of the wastewater programme, Council officers recommend to implement a project governance group as per the attached terms of reference.

The terms of reference recommend the inclusion of Councillor Brent Muggeridge and Councillor Kate Taylor as members of the project governance group.

Councillors Muggeridge and Taylor have been proposed as members of the project governance group due to their current portfolio responsibilities. Councillor Muggeridge's role as Chair of the Finance and Infrastructure Committee and Councillor Taylor's role as member of the regional land transport committee and portfolio accountability for the Porangahau area respectively.

BACKGROUND

Council officers as outlined in the last key project status report delivered to Finance and Infrastructure Committee recommended the need now that the programme is progressing, for greater oversight and monitoring.

A usual function to deliver this oversight is the formation of a Project Governance Group.

The Project Governance Group, are typically made up of senior leaders who can provide adequate oversight and represent a wide skill base to support project success.

DISCUSSION

A project governance structure is necessary to provide a framework identifying who has responsibility and authority to make decisions within a project and to manage the day-to-day operation of the project. The Office of Auditor General identified eight elements considered essential for getting governance right to strengthen accountability;

1. Setting a clear strategic purpose and a clear direction for how to achieve that purpose
2. Having clear roles and responsibilities that separate governance and management i.e. distinct allocation and delegation of decision making rights
3. Leading by setting a constructive tone – shapes the culture and demonstrates desired values – through establishing and approving policies, making decisions and the approach and behaviour governance takes to its work with management and external stakeholders
4. Involving the right people – the right mix of people and skills – bringing multiple perspectives, debating issues robustly, and speaking with unity of voice and message once decisions made
5. Investing in effective relationships built on trust and respect – effective stakeholder engagement of value when making important decisions
6. Being clear about accountabilities and transparent about performance against them – receiving regular reporting that provides a clear and objective view of an organisation's (or project's) performance
7. Managing risks effectively – identifying, understanding and managing risks is a fundamental part of effective governance
8. Ensuring that you have good information, systems and controls – to inform and support decision making and keep stakeholders informed of progress

RISK ASSESSMENT AND MITIGATION

The implementation of a governance group, support risk mitigation, and provides a greater level of oversight and risk management.

FOUR WELLBEINGS

The project governance group may challenge the project team to further consider the four wellbeing as appropriate during the project lifecycle.

DELEGATIONS OR AUTHORITY

The project governance group is an added layer of oversight across the wastewater programme and reports to the Finance and Infrastructure Committee in the first instance, and to full Council for further escalations.

SIGNIFICANCE AND ENGAGEMENT

In accordance with the Council's Significance and Engagement Policy, this matter has been assessed of some significance, but is managed via the projects communications plan.

OPTIONS ANALYSIS

Option One to adopt the project governance group terms of reference.

Option Two to reject the project governance group terms of reference.

	<u>Option 1</u>	<u>Option 2</u>
	Option One to adopt the project governance group terms of reference.	Option Two to reject the project governance group terms of reference.
Financial and Operational Implications	Some added time and cost, expected to provide oversight to mitigate and control risks.	Less cost and time, but risk of escalations not appropriately dealt with that could add greater time and cost.
Long Term Plan and Annual Plan Implications	None	None
Promotion or Achievement of Community Outcomes	None	None
Statutory Requirements	Supports good project management and governance and aligns with the NZ infrastructure commission guidance on project governance.	None – when project exceeds \$50m, Treasury recommends appropriate project governance.
Consistency with Policies and Plans	Aligned with Project Thrive durable infrastructure, smart growth and prosperous community outcomes	None

Recommended Option

This report recommends **Option One** to adopt the project governance group terms of reference for addressing the matter.

NEXT STEPS

To implement the project governance group, and arrange meetings accordingly.

RECOMMENDATION

That having considered all matters raised in the report:

- a) That the Finance and Infrastructure Committee adopt the PGF Porangahau to Wimbledon programme terms of reference.



**CENTRAL
HAWKE'S BAY**
DISTRICT COUNCIL



**PGF Programme
Porangahau/Wimbledon
PROJECT
GOVERNANCE
GROUP**
September 2020
TERMS OF REFERENCE



1. PURPOSE

This document sets out the Terms of Reference (TOR) for the Central Hawke's Bay PGF Programme Porangahau/Wimbledon Project Governance Group (PGG). The PGG has responsibility for ensuring the Central Hawke's Bay PGF Programme is successfully delivered on time and within budget, is executed according to the developed project documentation and achieves the Central Hawke's Bay PGF Programme Porangahau/Wimbledon Objectives. The PGG is also responsible for sound decision-making and for granting approvals and making recommendations to [Councillors].

2. OBJECTIVES

The role of this PGG is to:

- Ensure appropriate project management practices are in place;
- Make effective decisions within delegations that will ensure successful delivery of the Central Hawke's Bay PGF Programme Porangahau/Wimbledon Programme objectives;
- make effective decisions that ensure the expectations of the Chief Executive Officer, Finance and Infrastructure (F&I) Committee and Council are met;
- Remove roadblocks to ensure that commitments to timeframes can be met;
- Ensure the Central Hawke's Bay PGF Programme Porangahau/Wimbledon remains viable throughout its lifecycle and if it isn't, then recommend that it is stopped; and
- Ensure the Central Hawke's Bay PGF Programme Porangahau/Wimbledon is successfully delivered according to the Central Hawke's Bay PGF Programme Porangahau/Wimbledon objectives, scope, time, quality and cost.
- Manage risks effectively

3. SCOPE AND FUNCTION

The scope and function of the PGG is to make decisions and provide the resources required for the Central Hawke's Bay PGF Programme Porangahau/Wimbledon to meet its objectives.

The PGG is not a consultation group, but rather a governing body with the authority to make decisions in relation to the Central Hawke's Bay PGF Programme Porangahau/Wimbledon.

As appropriate, the Chair and Sponsor may review the membership composition to ensure the required expertise is represented on the PGG throughout the life of the programme.

The Chair may invite experts to attend meetings to inform the PGG as required.

4. CHAIRPERSON

The Chair of the PGG is the Group Manager – Infrastructure & Community Development.



5. MEMBERSHIP & VOTING RIGHTS

The membership of this PGG is drawn from an appropriate decision-making level, with the required capabilities, who are able to provide representation in the following key areas.

Name	Agency	Role	Specific Responsibility
Josh Lloyd Group Manager – Infrastructure & Community Development	CHBDC	Senior Responsible Owner Chair Member	<ul style="list-style-type: none"> Provides programme leadership, owns the business case and is responsible and accountable for the programme's success. This includes optimising value, managing risk, ensuring timely delivery, meeting programme performance requirements and determining remedial action. Ensures appropriate programme assurance processes, such as Gateway reviews, are scheduled and responded to in a timely manner. Provides leadership on culture and values, obtains required resources, upholds probity principles and manages relationships (stakeholders, governance group etc.). Appropriately senior (for major infrastructure projects generally a Tier 2 manager) and reports directly to the Chief Executive. Has the authority to make decisions. Is the link between the organisation's senior executive body and the programme.
Brent Muggeridge Chair of Finance and Infrastructure Committee	CHBDC Councillor	Member	<ul style="list-style-type: none"> Understands the investment context and supports the SRO to make required decisions. Can hold the SRO to account in fulfilling their role. Provides strategic direction, monitors the programme and makes key decisions and/or recommendations to the SRO and responsible Councillors in accordance with the Terms of Reference and overall governance framework. The PGG approves and/or endorses a range of programme documentation. Member of the Porangahau Environmental Management Team
Kate Taylor Councillor	CHBDC Councillor	Member	<ul style="list-style-type: none"> Understands the investment context and supports the SRO to make required decisions. Can hold the SRO to account in fulfilling their role. Provides strategic direction, monitors the programme and makes key decisions and/or recommendations to the SRO and responsible Councillors in accordance with the Terms of Reference and overall governance framework. The PGG approves and/or endorses a range of programme documentation. Member of the Porangahau Environmental Management Team Councillor for the Porangahau area
Darren de Klerk Director Projects and Programmes	CHBDC	Project Director Member	<ul style="list-style-type: none"> Leads and manages the programme team on a day-to-day basis reporting to the SRO or PGG. Responsible for supporting organisational change management, managing key relationships and keeping the programme team motivated and supported. Responsible for preparation of all programme and project documentation and prepares reporting to support the role of the SRO, the PGG, Executive Leadership, Councillors and Others as required. This includes developing and updating the programme and project management plan, project schedules, risk registers via team reporting, probity requirements and project reporting. The project director also resolves planning and implementation issues, manages progress and budget, structures programme and project delivery and provides specialist resources and skills necessary to deliver a project to an agreed scope, quality, schedule and budget. The project director needs to have well-developed project, programme, risk, relationship and commercial management skills. Understands the investment context procurement experience, infrastructure or construction industry experience and experience developing and negotiating contractual agreements is also required.
Grant Maxwell Stantec Lead	Stantec	Member	<ul style="list-style-type: none"> Understands the investment context and supports the SRO to make required decisions. Can hold the SRO to account in fulfilling their role. Provides strategic direction, monitors the programme and makes key decisions and/or recommendations to the SRO and responsible Councillors in accordance with the Terms of Reference and overall governance framework. The PGG approves and/or endorses a range of programme and project documentation. Provides specialised technical skills and considerable experience in managing and undertaking PGF Programme Porangahau/Wimbledon planning, procurement and delivery.



Cameron Osmond OR Karina Campbell	MBIE	Non-Voting Observer	<ul style="list-style-type: none"> Understands the investment context Knowledge and input on government processes and requirements Ability to add to the level of oversight required at an investment level
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Provincial Growth Fund

CHBDC Porangahau & Wimbledon Road Resilience and Strengthening Programme



Each PGG Member:

- has read and understood their PGG role description including the need to question programme and project actions and make programme and project decisions;
- is aware of their responsibilities under the delegated authority of the Central Hawke's Bay PGF Programme Porangahau/Wimbleton;
- is able to provide constructive input and advice to the Project Director of the Central Hawke's Bay PGF Programme Porangahau/Wimbleton, and other relevant project leads;
- is aware of the project management approach;
- is able to actively assist with issue resolution and risk management;
- is committed to the Central Hawke's Bay PGF Programme Porangahau/Wimbleton and understands the importance of their personal contribution to its success;
- is a champion for the Central Hawke's Bay PGF Programme Porangahau/Wimbleton;
- is committed to prepare for and attend PGG meetings for the duration of their commitment to the Central Hawke's Bay PGF Programme Porangahau/Wimbleton; and
- has accepted this PGG Terms of Reference.

6. APOLOGIES, SUBSTITUTES, QUORUM

Terms relating to apologies, substitutes and quorum requirements are as follows:

- apologies are advised to the Chair prior to the meeting as required;
- those formally acting in the member's substantive role can attend PGG meetings as a delegate with approval from the Chair and must be fully briefed by the member and have full authority to make decisions;
- a quorum of three members is required for decisions to be made and a representative from Central Hawke's Bay District Council must be included. If a representative from Central Hawke's Bay District Council is not available on the day then voting should occur via email to ensure Central Hawke's Bay District Council is included in any voting;
- if there are no decisions being sought, then the quorum is not applicable; and
- if decisions are not unanimous, escalation will be to the SRO, Chief Executive and F&I Committee or Council as required.



7. PROJECT GOVERNANCE GROUP MEETINGS

The PGG will operate according to these Terms of Reference. The Project Director is responsible for content provided to the PGG and arranging support for distributing the meeting packs to PGG members a minimum of two full working days before each meeting. Late papers are received at the discretion of the Chair.

The Project Manager or delegate is responsible for formally recording PGG discussions, decisions and actions and sending minutes to PGG members within three working days after the meeting. Urgent papers will be received at the discretion of the Chair.

Secretariat support will be provided to the PGG by the Project Team. This shall include:

- co-ordination and management of diary invites and meeting room bookings;
- compiling the agenda;
- collating and distributing papers for meetings, including ensuring papers meet deadlines;
- recording and distributing meeting minutes;
- monitoring performance of actions; and
- working with the Chair and Project Director in fulfilling their responsibilities.

8. MEETING DATES / TIMES / VENUES

The PGG will meet quarterly with additional meetings arranged as required by the Chair. The frequency and length of the meetings will be assessed by PGG members and amended by the Chair as required. All meetings will be held at the Central Hawke's Bay District Council or as otherwise agreed by the Chair and noted on the agenda.

9. ADVISORS

The PGG may appoint advisors to provide specialist advice on technical, policy, legal and/or institutional aspects of the Central Hawke's Bay PGF Programme Porangahau/Wimbledon. Advisors will be chosen for their relevant expertise. The PGG will engage with advisors through attendance at PGG meetings or via email or telephone, as required.

10. CONFLICT OF INTEREST

Each PGG member and advisor must notify the PGG of any real or perceived conflict of interest that may affect their ability to fulfil their role impartially and effectively. The PGG will determine an appropriate course of action on a case by case basis and record it appropriately.



11. REPORTING TO THE CHIEF EXECUTIVE

The Chief Executive will be informed of key decisions and outcomes of the Central Hawke's Bay PGF Programme Porangahau/Wimbledon by the Project Sponsor as required.

12. REPORTING TO COUNCIL AND/OR COUNCIL COMMITTEES

The PGG will predominantly report to the F&I Committee as outlined within the delegations of the F&I Committee. For items outside of the delegations of the F&I Committee, the PGG will report to full Council as required.

13. ESCALATION AND APPROVALS

Escalations resulting from the PGG will be to the Chief Executive Office, then F&I Committee, and finally to full Council as required in accordance with the delegation's framework.

Approvals will be sought as per the Council's delegation framework.

14. ACCEPTANCE OF TERMS OF REFERENCE – PGG MEMBERS

Name	Substantive Position	Signature
Josh Lloyd Group Manager – Infrastructure & Community Development	Group Member, Chair	
Brent Muggeridge Chair of Finance and Infrastructure Committee	Group Member	
Darren de Klerk Director Projects and Programmes	Group Member	
Grant Maxwell Stantec Lead	Group Member	
Cameron Osmond/ Karina Campbell MBIE – Senior Regional Advisors	Non-Voting Observer	



15. REFERENCES/ SUPPORTING DOCUMENTATION

The following policies, or documents support the project and these Terms of Reference;

[Chief Executives Delegation Register](#)

[CHBDC Delegations Manual](#)

[Elected Member Priorities 2019-2022](#)

16. DOCUMENT REVISION HISTORY

This section tracks the document and revision history.

Version	Change Description	Approved By	Date
01	First Draft	Josh Lloyd	31/07/2020
02	Second Draft – added MBIE members	Josh Lloyd	27/09/2020



Governance Guidelines

The Council aims to achieve the highest standards of governance and to operate in a way that is transparent and collaborative for the benefit of all its stakeholders.

The day to day corporate governance and organisational structure of the Council does not generally provide the necessary framework to deliver projects.

A project governance structure is necessary to provide a framework identifying who has responsibility and authority to make decisions within a project and to manage the day-to-day operation of the project. The Office of Auditor General identified eight elements considered essential for getting governance right to strengthen accountability:

1. Setting a clear strategic purpose and a clear direction for how to achieve that purpose
2. Having clear roles and responsibilities that separate governance and management i.e. distinct allocation and delegation of decision making rights
3. Leading by setting a constructive tone – shapes the culture and demonstrates desired values – through establishing and approving policies, making decisions and the approach and behaviour governance takes to its work with management and external stakeholders
4. Involving the right people – the right mix of people and skills – bringing multiple perspectives, debating issues robustly, and speaking with unity of voice and message once decisions made
5. Investing in effective relationships built on trust and respect – effective stakeholder engagement of value when making important decisions
6. Being clear about accountabilities and transparent about performance against them – receiving regular reporting that provides a clear and objective view of an organisation's (or project's) performance
7. Managing risks effectively – identifying, understanding and managing risks is a fundamental part of effective governance
8. Ensuring that you have good information, systems and controls – to inform and support decision making and keep stakeholders informed of progress

On that basis, it is proposed that the following structure is established by the Council to ensure effective governance and control of its Porangahau to Wimbledon PGF and Wastewater Projects:

- **Project Governance Group (PGG)** – sets a firm framework which guides project success, creates transparency and confidence in essential project decision making and clarity on roles and responsibility.
- **Project Control Group (PCG)** – the primary working group that coordinates the management of the project on a day-to-day basis from start to completion.

The Terms of Reference for the PGG and PCG have been tailored to the needs of each project and have taken into account guidance from the NZ Infrastructure Commission (Te Waihanga) which provides support to local authorities through the provision of best practice guidance on major infrastructure procurement and delivery.



The Terms of Reference document membership of each group and operational matters such as receipt of papers, location and regularity of meetings, managing conflicts of interest, required quorum for decisions, confidentiality and communications, and secretariat support and liaison.

The PGG and PCG Terms of Reference should be approved by [Council or Committee] and then regularly reviewed to ensure the required expertise is represented on each governance group throughout the life of the project.

We have been in touch with the Infrastructure Transactions Unit at Te Waihangā who are working on an update to their template project governance terms of reference. It is therefore considered appropriate to review the terms of reference within three months alongside any further guidance from Te Waihangā.

5.4 CHB WASTEWATER MANAGEMENT STRATEGY

File Number: COU1-1410

Author: Darren de Klerk, 3 Waters Programme Manager

Authoriser: Monique Davidson, Chief Executive

Attachments: 1. CHBDC Wastewater Strategy 2020 [↓](#)

PURPOSE

The matter for consideration by the Council is to receive the wastewater strategy that sets the direction for the wastewater projects across the district.

RECOMMENDATION FOR CONSIDERATION

That having considered all matters raised in the report:

- a) That the Finance and Infrastructure Committee approves **Option One** – to adopt the strategy.

EXECUTIVE SUMMARY

The **Wastewater Strategy** (Strategy) developed and set out in this report outlines our vision for resilient and sustainable wastewater management for the next 50 years. The Strategy's aim is to ensure that our wastewater system is managed efficiently, effectively and sustainably, with one eye on the present and one eye on the future. It will serve as a guide to the Council's asset management and planning processes surrounding wastewater.

This Strategy aims to provide line of sight and transparency to all involved and aligns the project outcomes with Council's THRIVE objectives of smart growth, durable infrastructure and environmental responsibility.

The Wastewater project across the district has been highlighted by elected members as the number one priority for this term (2019-2022), as indicated in the Elected Member Priorities.

The strategy provides the opportunity to step back and consider **not just what is needed now, but for the needs of future generations**. This then needs to be discussed and approved by the community and then the delivery needs to be coordinated. There is a complex set of interrelated issues and actions involved; and this **requires a Strategy**.

Development of a robust wastewater Strategy aims to reduce unnecessary duplication, redundancy of infrastructure and the need for ongoing small poorly justified modifications of infrastructure for the foreseeable future. The ability to "**step back**" and assess future wastewater needs and their integration with district wide growth, changing environmental standards, cultural and social expectations is a key outcome of the wastewater strategy.

Reticulation, treatment and discharge are all part of managing wastewater; along with overlapping considerations of resilience, climate change and the system's environmental foot print. However, this **Strategy focuses on the collection, treatment and discharges of wastewater**, but other aspects need to be considered in time.

This Strategy is not just about correcting previous shortcomings in our wastewater systems. This **Strategy is intended to link to and where possible pre-empt and be ahead of environmental regulation**.

A strategy should set a plan as to why and how to do something. In the case of #TheBigWastewaterStory this includes a Big Picture commentary on the preference/desire/willingness/ideas (**what is needed and what is aspired to**) to manage wastewater treatment plant discharges from reticulated sewers in the district.

BACKGROUND

In 2016 CHBDC was issued an infringement notice by HBRC. In early 2017 CHBDC pleaded guilty and the infringement notice was revised in mid 2017. Following this council commissioned reviews into the plants by '[Beca](#)' and '[The Wastewater Specialists](#)', this resulted in mid-2018 CHBDC deciding that wastewater management required a fresh approach.

There was an appetite for, and the need to, look at the bigger picture of what is suitable for the Waipawa WWTP discharge, and this was reflected in a Supplementary Order [response](#) made to the Environment Court to deal with non-compliance issues in September 2019. This required thinking beyond just managing consent compliance, but rather how the Council was managing wastewater. A [package report](#) was produced to support the formal court response.

This led to the establishment of an internal council project to consider wastewater management, not just for Waipawa, but other communities in the District. It was appreciated that the issues facing Waipawa were similar to those facing Waipukurau, and ultimately other communities in the district. This led to an opportunity to consider wastewater management collectively at one time and district wide.

While considering options for Waipawa and Waipukurau, CHBDC had to also consider options to manage Otane. Reticulation of Otane wastewater to Waipawa was considered given:

- the proximity of Otane to Waipawa;
- the potential for Waipawa to become a centralised treatment location;
- pressures on future Otane treatment and discharge options,
- the installation of a water main from Waipawa to Otane was under way and consideration was given to also reticulating wastewater.

Otane now forms part of the strategy of dealing collectively with Waipawa and Waipukurau and is collectively referred to as the WOW project.

Takapau, Porangahau and Te Paerahi communities also require consideration, primarily as their consents expire in 2021. Based on previous consenting processes, CHBDC had provided a commitment to the community to reconsider options for each community. Engagement with all three communities has identified a preference for land-based discharges, which would mean that the current surface water discharges at Takapau and Porangahau would need to be modified. Further, Te Paerahi (Porangahau Beach) discharges into sand dunes in an area considered waahi tapu, and Council has undertaken to consider alternative locations.

DISCUSSION

A Strategy is needed to ensure we look ahead and deliver **not just what is needed now, but for the needs of future generations**. There is the need to identify what is physically required. This then needs to be discussed and approved by the community and then the delivery needs to be coordinated. There is a complex set of interrelated issues and actions involved; and this **requires a Strategy**.

Treated wastewater impacts or interacts with our environment in three key areas and the long term management of each of these needs to properly planned. These are:

- Liquid Stream: The treated water that leaves the treatment plant site and is applied to land or to water;
- Solids Stream: Screenings, Grit and the excess biomass that is generated in the treatment process in consuming the liquid and solid contaminants entering the WWTP;
- Atmospheric discharges: Noise, odorous compounds, and greenhouse gas emissions both on and off site.

Development of a robust wastewater Strategy aims to reduce unnecessary duplication, redundancy of infrastructure and the need for ongoing small poorly justified modifications of infrastructure for the foreseeable future. The ability to “**step back**” and assess future wastewater needs and their integration with district wide growth, changing environmental standards, cultural and social expectations is a key outcome of the wastewater strategy.

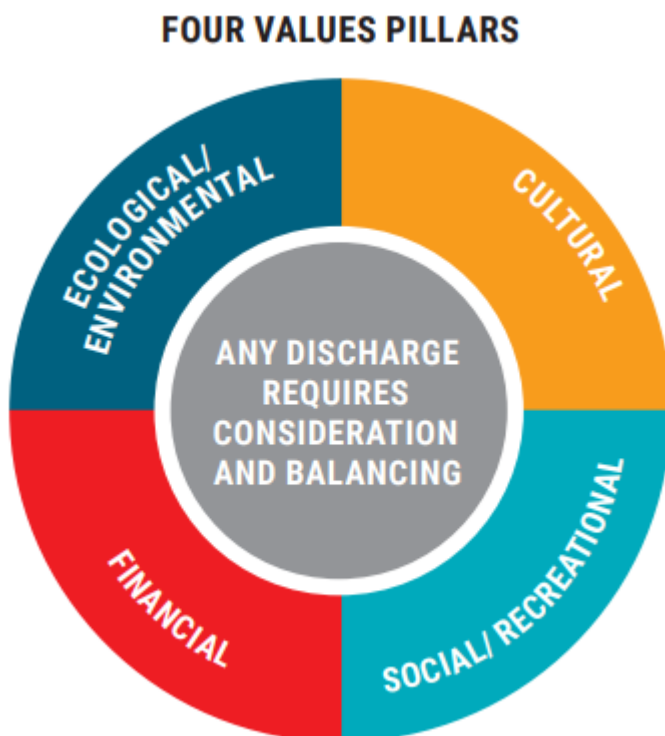
The Strategy aims to provide clear direction and guidance on how the programme of works will come to life and ensures every decision we make along the project path can be linked to the overarching **Strategy**.

RISK ASSESSMENT AND MITIGATION

The Strategy acts as the overarching guidance document for the future of wastewater management across the district and is a key tool in mitigating risk around the direction the council is traversing around the future of the wastewater systems in CHB.

FOUR WELLBEINGS

The four wellbeings are a key value set and the project options have been assessed against these values.



DELEGATIONS OR AUTHORITY

The Finance and Infrastructure Committee are delegated to lead this project, the project is listed as the key priority of this Council, the adoption of this wastewater strategy reinforces that priority.

SIGNIFICANCE AND ENGAGEMENT

In accordance with the Council's Significance and Engagement Policy, this matter has been assessed of great significance and has recently been engaged on as part of the Long Term Plan pre-engagement and has had ongoing community engagement since 2018 – these workshops and community sessions are a key input into the strategy.

OPTIONS ANALYSIS

Option One – to adopt the strategy

Option Two – to reject the strategy

	<u>Option 1</u>	<u>Option 2</u>
	Option One – to adopt the strategy	Option Two – to reject the strategy
Financial and Operational Implications	Planning and design within existing budgets, significant financial requirements will be set out in the 2021 LTP.	Time delays and may incur implications with the strategy supporting LTP work.
Long Term Plan and Annual Plan Implications	Aligns with these plans	Might cause delays to LTP inputs
Promotion or Achievement of Community Outcomes	Achieves outcomes following community engagement – further work required on financial affordability	Delays community outcomes
Statutory Requirements	None at this stage	None at this stage
Consistency with Policies and Plans	Consistent	Consistent

Recommended Option

This report recommends **Option One** – to adopt the strategy for addressing the matter.

NEXT STEPS

The project team continue to implement the strategy and prepare for Long Term Plan engagement and investigate additional funding opportunities to mitigate affordability constraints.

RECOMMENDATION

That the Finance and Infrastructure Committee approves **Option One** – to adopt the strategy.

Sensitivity: General





District Wastewater Treatment and Discharge Management Strategy

Central Hawkes Bay District Council

This report has been prepared for the **Central Hawkes Bay District Council** by Lowe Environmental Impact (LEI) and Beca. No liability is accepted by this company or any employee or sub-consultant of this company with respect to its use by any other parties.

Quality Assurance Statement		
Task	Responsibility	Signature/ Date
Project Manager:	Hamish Lowe (LEI)	
Prepared by:	Hamish Lowe (LEI) Rachael Shaw/John Crawford (BECA)	
Reviewed by:	Darren de Klerk	02-09-2020
Reviewed by:	At Council Workshop	10-09-2020
Approved for Issue by:	CHBDC Finance and Infrastructure Committee	08-10-2020
Status:	Draft / Preliminary / Final	

Revision Status			
Version	Date	Author	What Changed and Why
2	16-09-2020	HL	Changes following Council Workshop
1	02-09-2020	HL	Draft prepared by project team for Council Workshop



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1. EXECUTIVE SUMMARY

Central Hawke's Bay District Council (CHBDC) is committed to the health, safety, and wellbeing of our community. This commitment extends to those who work for us and with us in the delivery of services and those who receive services from us. Providing wastewater services is a critical aspect of this and a plan is needed to ensure that this service is enduring.

The **Wastewater Strategy** (Strategy) developed and set out in this report outlines our vision for resilient and sustainable wastewater management for the next 50 years. The Strategy's aim is to ensure that our wastewater system is managed efficiently, effectively and sustainably, with one eye on the present and one eye on the future. It will serve as a guide to the Council's asset management and planning processes surrounding wastewater.

This Strategy aims to provide line of sight and transparency to all involved and aligns the project outcomes with Council's THRIVE objectives of smart growth, durable infrastructure and environmental responsibility.

The outcomes we want to achieve - Our Objectives -

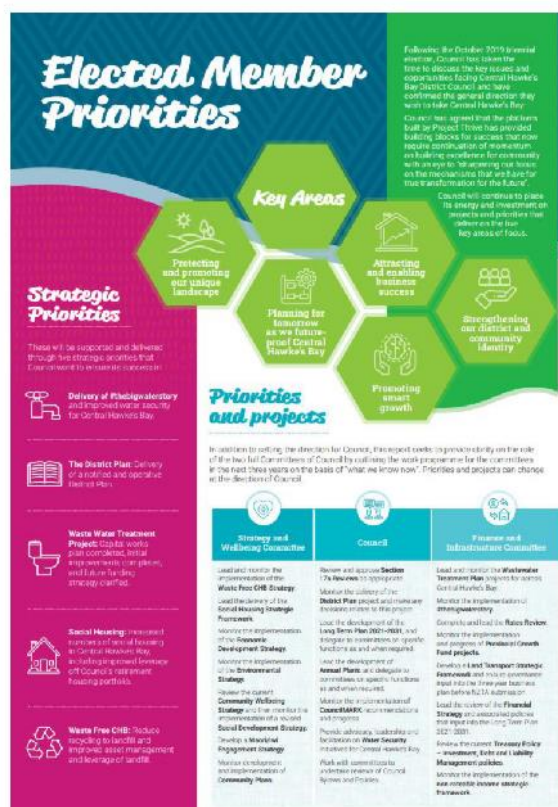


The Wastewater project across the district has been highlighted by elected members as the number one priority for this term (2019-2022), as indicated in the Elected Member Priorities.

#the BIG.
Waste Water Story



**CENTRAL
HAWKE'S BAY**
DISTRICT COUNCIL



The strategy provides the opportunity to step back and consider **not just what is needed now, but for the needs of future generations**. This then needs to be discussed and approved by the community and then the delivery needs to be coordinated. There is a complex set of interrelated issues and actions involved; and this **requires a Strategy**.

Development of a robust wastewater Strategy aims to reduce unnecessary duplication, redundancy of infrastructure and the need for ongoing small poorly justified modifications of infrastructure for the foreseeable future. The ability to “**step back**” and assess future wastewater needs and their integration with district wide growth, changing environmental standards, cultural and social expectations is a key outcome of the wastewater strategy.

Reticulation, treatment and discharge are all part of managing wastewater; along with overlapping considerations of resilience, climate change and the system’s environmental foot print. However, this **Strategy focuses on the collection, treatment and discharges of wastewater**, but other aspects need to be considered in time.

This Strategy is not just about correcting previous shortcomings in our wastewater systems. This **Strategy is intended to link to and where possible pre-empt and be ahead of environmental regulation**.



A strategy should set a plan as to why and how to do something. In the case of #TheBigWastewaterStory this includes a Big Picture commentary on the preference/desire/willingness/ideas (**what is needed and what is aspired to**) to manage wastewater treatment plant discharges from reticulated sewers in the district.

Of the total district population of 14,850 people (Squillions, 2020), the majority are serviced by reticulated wastewater facilities at Otane, Waipawa, Waipukurau, Takapau, Poranghau and Te Paerahi. Managing the treatment and discharge of this wastewater is critical to providing for the wellbeing of the community, and a Strategy is needed to direct and focus the planning and development of reticulated wastewater management for the district.

A key aspect of delivering the Strategy is to understand and deliver a forward-thinking solution that meets the needs of our community. This can be achieved by listening to the community, seeking and taking on board sound expert advice, and robust management of the project delivery within appropriate regulatory and financial limitations.

#TheBigWastewaterStory is a significant programme; it encompasses six communities which, based on geographical spread, have been divided into five **Projects**.

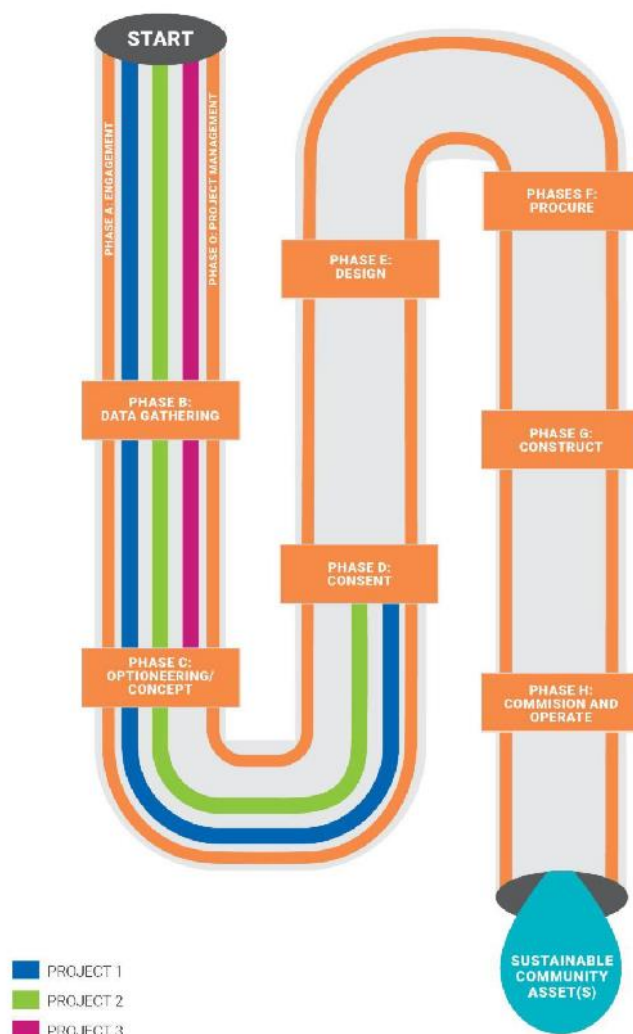
- Project 1 – Otane, Waipawa and Waipukurau
- Project 2 – Takapau
- Project 3 – Te Paerahi and Porangahau
- Project 4 – Residuals
- Project 5 – Loadings and Flow Management

To assist with management, the delivery of the first three projects follow a sequence of **Phases**. These Phases include:

- Phase O: Project Management;
- Phase A: Engagement;
- Phase B: Data gathering;
- Phase C: Optioneering/Concept;
- Phase D: Consent;
- Phase E: Design;
- Phase F: Procure;
- Phase G Construct; and
- Phase H: Commission and Operate.



The relationship between the Projects and Phases is summarised below.



Territorial Authorities such as CHBDC have obligations under the Local Government Act (LGA) to develop, manage and sustain wastewater facilities for their communities. **Sustainability** has multiple considerations. This includes economic, social, cultural and environmental; and much more than the historic focus on economic and environmental sustainability.

The impact of costs also needs to be considered when choosing a wastewater system, in that while a system **should be affordable** it should also seek to **not be a patch fix** and it should be **forward thinking**. This effectively means that the resource consenting for a discharge should be for an appropriate system to meet the community's needs, and not solely focused on immediate compliance and environmental outcomes. Costs over the life of the asset should



be considered, and in particular an evaluation of options should include combined Capital and Operational considerations (Whole of Life cost).

Community engagement and approval of wastewater options and changes is not required. However, it is considered best practice for achieving the necessary LGA and RMA functions. Equally, engagement with Maori is not essential, but as partners under Te Tiriti o Waitangi consultation with tangata whenua is desirable and in-line with best practice.

There has been considerable engagement to date, and this has resulted in the development of a Vision:

Our effluent is treated in a sustainable way that creates a resource, protects our environment, and continues to do so for generations to come.

Projects 1 (WOW), Project 2 (Porangahau and Te Paerahi) and Project 3 (Takapau) have seen a series of options developed, with refinement resulting in the development of preferred options. With the assistance of an approved Wastewater Strategy, the options can be further refined to develop Best Practicable Options (BPO).



2. WHY DO WE NEED A WASTEWATER STRATEGY?

A Strategy is needed to ensure we look ahead and deliver **not just what is needed now, but for the needs of future generations**. There is the need to identify what is physically required. This then needs to be discussed and approved by the community and then the delivery needs to be coordinated. There is a complex set of interrelated issues and actions involved; and this **requires a Strategy**.

Treated wastewater impacts or interacts with our environment in three key areas and the long term management of each of these needs to be properly planned. These are:

- Liquid Stream: The treated water that leaves the treatment plant site and is applied to land or to water;
- Solids Stream: Screenings, Grit and the excess biomass that is generated in the treatment process in consuming the liquid and solid contaminants entering the WWTP;
- Atmospheric discharges: Noise, odorous compounds, and greenhouse gas emissions both on and off site.

Development of a robust wastewater Strategy aims to reduce unnecessary duplication, redundancy of infrastructure and the need for ongoing small poorly justified modifications of infrastructure for the foreseeable future. The ability to “**step back**” and assess future wastewater needs and their integration with district wide growth, changing environmental standards, cultural and social expectations is a key outcome of the wastewater strategy.

The Strategy aims to provide clear direction and guidance on how the programme of works will come to life and ensures every decision we make along the project path can be linked to the overarching **Strategy**.



3. WHAT DOES THIS STRATEGY COVER?

Council's role in wastewater management is multifaceted. Wastewater originates at individual properties, businesses and from industrial processes. Reticulation, treatment and discharge are all part of managing wastewater; along with overlapping considerations of resilience, climate change and the system's environmental foot print. However, this **Strategy focuses on the collection, treatment and discharges of wastewater**, but other aspects need to be considered in time.

The involvement of the Council in wastewater management not only includes the provision and operation of community wastewater systems, but also building inspections; issuing of building consents and compliance certificates, review of subdivision proposals and issuing resource consents, provision of public health inspectors and monitoring staff; managing trade waste and enforcing minimum standards for onsite wastewater treatment systems, as well as other aspects.

Wastewater is currently part of a renewed Central Government focus on 'Three Waters' management (potable water, wastewater and stormwater). Initiatives which will see regulatory and non-regulatory approaches to improve water quality (National Policy Statement for Fresh Water Management) that will shortly require new management regimes and design changes (upgrades) to many existing wastewater discharges. This strategy is not just about correcting previous shortcomings in our wastewater systems. This **Strategy is intended to link to and where possible pre-empt and be ahead of environmental regulation.**

An example of recent regulatory changes is [Plan Change 6](#) (2015) to the Hawke's Bay Regional Resource Management Plan (that focuses on the Tukituki River catchment) which aims to drive improvements in water quality progressively over time so that freshwater objectives are achieved by 2030. CHBDC needs to account for the nutrients discharged from its wastewater treatment plant(s) and demonstrate that these are changed and upgraded to contribute towards the required Tukituki catchment improvements.

A further key driver to looking ahead is the fact that a number of CHBDC's wastewater treatment plants have resource consents which are about to expire. In addition, some plants have compliance issues which need to be addressed, or variations to ensure compliance.

Strategies can be complex and interrelated. This strategy has a focus on **addressing what gets into the system, reticulation, wastewater treatment and discharge**. When considering these components, thought should be given to related aspects such as tradewaste contributions and reception of septage from rural properties. Overlapping aspects that apply to all components are climate change, system resilience, environmental footprint and social and cultural considerations. There will be the need for further strategies to address climate change and resilience across the District.

**#the BIG-
Waste Water Story**



4. CRITICAL ASPECTS TO A STRATEGY

A strategy should set a plan as to why and how to do something. In the case of #TheBigWastewaterStory this includes a Big Picture commentary on the preference/desire/willingness/ideas (**what is needed and what is aspired to**) to manage wastewater treatment plant discharges from reticulated sewers in the district. Also needed is an outline of the approach to developing the engineering and operational aspects of the proposed strategy (**numbers**), and a plan to have the system approved (**approvals**), both internally within council and by the relevant regulatory agencies; these latter two aspects are part of executing the Strategy. This relationship is summarised in Figure 1 below.

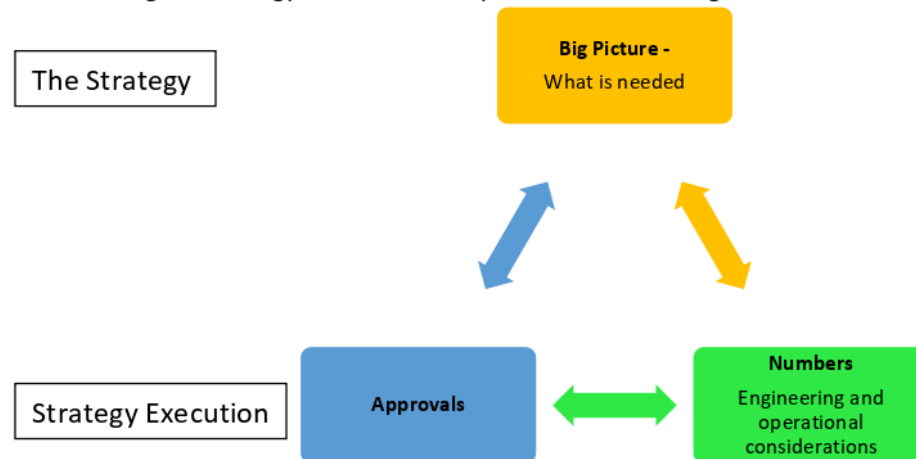


Figure 1: Key Components in The Strategy

This Strategy highlights what is needed and why. The execution of the Strategy is the supporting work coordinating the more administrative tasks, particularly the project management and structure to ensure the necessary **approvals** are acquired (council approval of funds and consents) and engineering and operational considerations (**numbers**) are taken into account. This Execution Plan is presented as a separate document and sets a blueprint for the Project Team to achieve the Strategy.



5. BACKGROUND

5.1 What communities are covered by this Strategy?

In 2016 CHBDC was issued an infringement notice by HBRC. In early 2017 CHBDC pleaded guilty and the infringement notice was revised in mid 2017. Following this council commissioned reviews into the plants by 'Beca' and 'The Wastewater Specialists', this resulted in mid-2018 CHBDC deciding that wastewater management required a fresh approach.

There was an appetite for, and the need to, look at the bigger picture of what is suitable for the Waipawa WWTP discharge, and this was reflected in a Supplementary Order [response](#) made to the Environment Court to deal with non-compliance issues in September 2019. This required thinking beyond just managing consent compliance, but rather how the Council was managing wastewater. A [package report](#) was produced to support the formal court response.

This led to the establishment of an internal council project to consider wastewater management, not just for Waipawa, but other communities in the District. It was appreciated that the issues facing Waipawa were similar to those facing Waipukurau, and ultimately other communities in the district. This led to an opportunity to consider wastewater management collectively at one time and district wide.

While considering options for Waipawa and Waipukurau, CHBDC had to also consider options to manage Otane. Reticulation of Otane wastewater to Waipawa was considered given:

- the proximity of Otane to Waipawa;
- the potential for Waipawa to become a centralised treatment location;
- pressures on future Otane treatment and discharge options,
- the installation of a water main from Waipawa to Otane was under way and consideration was given to also reticulating wastewater.

Otane now forms part of the strategy of dealing collectively with Waipawa and Waipukurau and is collectively referred to as the WOW project.

Takapau, Porangahau and Te Paerahi communities also require consideration, primarily as their consents expire in 2021. Based on previous consenting processes, CHBDC had provided a commitment to the community to reconsider options for each community. Engagement with all three communities has identified a preference for land-based discharges, which would mean that the current surface water discharges at Takapau and Porangahau would need to be modified. Further, Te Paerahi (Porangahau Beach) discharges into sand dunes in an area considered waahi tapu, and Council has undertaken to consider alternative locations.

The Central Hawke's Bay area covers some 332,792 ha and has a population of some 14,850 residents in 2019 ([Squillions](#), 2020). While there is a significant rural area, more than half of the District population is concentrated in six key communities which have a reticulated sewer, treatment plant and discharges, and these are all expected to grow significantly over the next 20 years. The District's population is expected to increase by over 60%, with modelled growth in some townships predicted to more than double over this same period if allowed to progress without restrictions. A significant amount of growth is also projected to occur across the



district outside the town boundaries. This also means more industry and enterprises are likely to come to the District.

The Strategy plans for the increased wastewater load from the increased activity in townships across the District. Table 1, below sets out projected population changes in the six key communities with reticulated sewers.

Table 1: Population projections

Community	Population 2019	Average daily flow (m ³ /d)	Population 2031	2031 % increase	Population 2051	2051 % increase
Waipawa	2180	1043	2507	15%	2852	31%
Waipukurau	4580	2545	5890	29%	7540	65%
Otane	710	185	1151	62%	1756	147%
Porangahau	210	138	377	80%	731	248%
Takapau	620	153	846	36%	1137	83%
Te Paerahi	312	80				
Central Hawke's Bay	14850		18770	26%	23980	61%

* Adapted from Central Hawke's Bay District Demographic and Economic Growth Projections 2020-2051 (Squillions, 2020)

*Daily flow values are averages and consider peak wastewater flow periods (i.e. summer months/school holidays). Average daily flows will likely be greater during these periods and therefore projects need to be designed to accommodate for these higher flow volume periods.

5.2 When will the Strategy be implemented?

Changes and opportunities to improve design, operation and management can occur now. While there are requirements to address pending consenting obligations, there are also opportunities to make changes now ahead of new regulations and to utilise funding potentially available from Central Government.

Regardless of the design and funding options, a key aspect will be to create a system(s) that allows for community growth and highly likely (yet unknown) regulatory changes. This is where staging and modulation of a system are important, especially to avoid rework and modifications of new facilities and redundancy in infrastructure over time.

5.3 Who

Developing strategies and implementing changes is a team approach. CHBDC have developed an internal team to review current wastewater facilities and implement changes. This is supported by external experts, in particular Lowe Environmental Impact (LEI) and Beca.

Contributing to this team approach has been community feedback, and in particular the Stakeholder Reference Group formed for engagement and direction setting for the Waipawa, Waipukurau and Otane communities.

5.4 Funding

The implementation of this Strategy comes with a price tag, with significant design and infrastructure requiring funding. While not needing to be addressed in this Strategy, there needs to be an awareness of the differing funding opportunities. These include internal funding from rates (including servicing loan funding), external loans from government



agencies and grants from government agencies. Such external funding includes funds from the Three Water's review and Crown Infrastructure Partnership allocation.

There is also potential for third parties to be involved and may include opportunities as to how things are built, operated, and managed. This means that contracts could be let by Council for a third party to provide all or part of a service, from design to operate.

In addition, the water reform process may create further opportunities with coordination and collaboration with other councils and central government agencies.

5.5 How

Strategies take time to define and implement. This document develops, defines and sets out a blueprint for executing a wastewater Strategy across Central Hawke's Bay's currently reticulated communities. Rural properties and communities with on-site systems are not included in this strategy, however the overall consideration of treatment facilities allows for septage from onsite systems throughout the district to be received and treated.

#TheBigWastewaterStory is a significant programme; it encompasses six communities which, based on geographical spread, have been divided into five **Projects**.

- Project 1 – Otane, Waipawa and Waipukurau
- Project 2 – Takapau
- Project 3 – Te Paerahi and Porangahau
- Project 4 – Residuals
- Project 5 – Loadings and Flow Management

To assist with management, the delivery of the first three projects follow a sequence of **Phases**. These Phases include:

- Phase O: Project Management;
- Phase A: Engagement;
- Phase B: Data gathering;
- Phase C: Optioneering/Concept;
- Phase D: Consent;
- Phase E: Design;
- Phase F: Procure;
- Phase G Construct; and
- Phase H: Commission and Operate.

To further assist with implementation, each Project is **Staged** to provide for a logical sequence that is dependent on resourcing. Staging refers to the timing and sequence of the Project actions. Staging may occur between phases, or within phases, particularly within the design and construct phases. Staging can be driven by availability of finance, availability of materials and contractors, or by aligning to changes in the regulatory environment. In some cases the Stages require consideration of Options. The relationship of the first three Projects and their Phases is shown in Figure 2 below.

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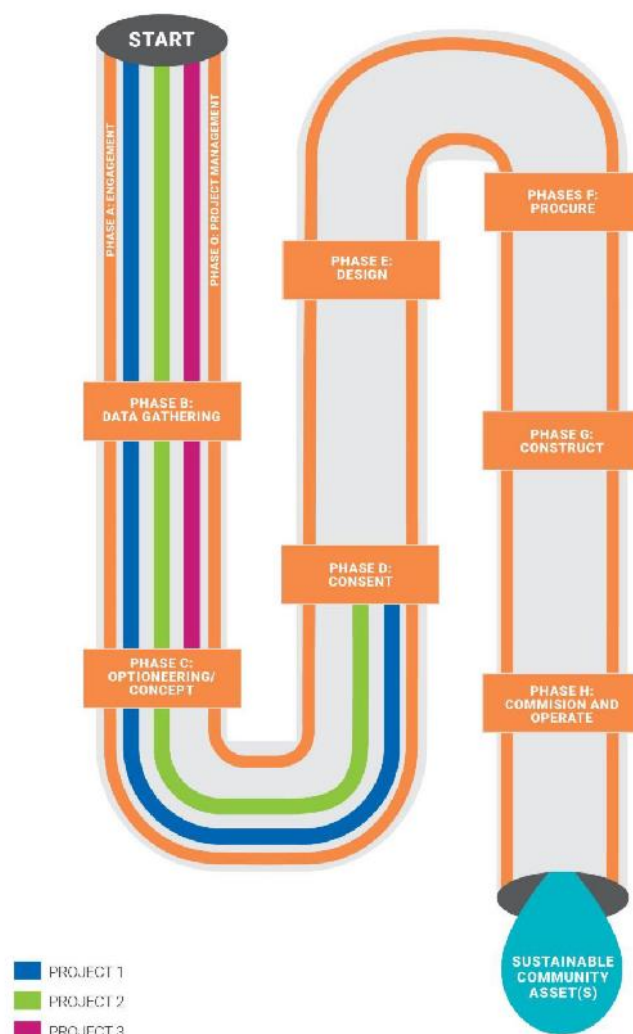


Figure 2: Relationship of Projects, Phases, Stages and Options

Projects 4 and 5 are slightly different in so far as they both contain multiple bodies of work that deal with essentially what goes into the main wastewater systems (Project 5: Loadings and Flow Management) and what else comes out of treatment plants (Project 4: Residuals). They have their own Phasing and Stages, with information generated either to assist with understanding Projects 1 to 3, or as a result of Projects 1 to 3.



6. RESOURCE CONSENTING STATUS

6.1 What Consents are needed

Consents have been granted by the Hawke's Bay Regional Council ("HBRC") for discharges from Te-Paerahi, Porangahau, Takapau, Otane, Waipawa and Waipukurau wastewater systems. The consent status of the six communities is summarised in Table 2 below.

Table 2: Consent Status

	Consent number	Granted	Last date for lodgment*	Consent expires	Discharge into
Te-Paerahi	DP030234La	14-May-12	14-Nov-20 14-Feb-21	31-May-21	Dunes via soakage
Porangahau	DP 030233W	22-Oct-09	14-Nov-20 14-Feb-21	31-May-21	Porangahau River
Takapau	DP180115W DP180124A	10-Dec-18	30-Apr-21 31-Jul-21	31-Oct-21	Wetland then Makaretu River
Waipukurau	AUTH-113118-04 (W)** AUTH-113834-04 (A)	8-Dec-15	30-Mar-30 30-Jun-30	30-Sep-30	Tukituki River
Waipawa	AUTH-113123-03 (W) AUTH-113839-03 (A)	8-Dec-15	30-Mar-30 30-Jun-30	30-Sep-30	Waipawa River
Otane	AUTH-121814-02 (W) AUTH-121816-02 (W) AUTH-121818-02 (A)	5-Mar-19	14-Nov-41 14-Feb-42	31-May-42	Te Aute Drain

*To provide for continuation of an activity while an application is being process, in accordance with s124 of the RMA, applications have to have been lodged either 6 months or 3 months (with approval) prior to consent expiry.

**This consent was originally granted on the 1st of December 2006, subject to an Environment Court judgement, and subsequently changed in accordance with s127 and s128 of the RMA.

Of note is the Otane discharge consent which has a consent condition requiring a treatment upgrade by 31 March 2021.

6.2 Regulatory Instruments

Ultimately discharges are controlled and regulated by the Resource Management Act (RMA), or various regulations and guidelines developed under the Act.

Of critical importance is the National Policy Statement for Freshwater Management (2017). Variations to this (2019) will see greater requirements placed initially on Regional Councils to change regional plans, but ultimately District Councils to ensure their wastewater discharges meet new water quality requirements.

The RMA also requires the production of regional plans. Specific regional plans applicable at present are:

- The Regional Resource Management Plan ("[RRMP](#)"); and
- The Regional Coastal Environment Plan ("[RCEP](#)").



Only the Porangahau and Te Paerahi communities are impacted by the RCEP. Under the RCEP the Coastal Marine Area ("CMA") extends up the Porangahau River to the Beach Road bridge, so discharges in the vicinity of the Te-Paerahi WWTP will be regulated under that plan.

Discharges outside the CMA (including to water and land) will be considered and regulated under the RRMP. Both plans make provision for wastewater discharges to be Discretionary Activities.

Both plans are operative (RCEP - November 2014 and RRMP – August 2006) but proposed changes to National Environmental Standards and National Policy Statements may see tighter specification of receiving water quality standards introduced into both plans in the next 5 years and environmental goal posts to be moved.



7. INFRASTRUCTURE DESCRIPTION

The following is a very brief summary of the treatment and discharge systems for the six communities.

Table 3: Treatment and Discharge Summary

Community	Treatment	Discharge
Te Paerahi	Oxidation Pond	Sand dunes
Porangahau	Oxidation Pond	Porangahau River
Takapau	Oxidation Pond	Makaretu River
Otane	Oxidation Pond and floating wetlands	Te Aute Drain then Kaikoura Stream
Waipawa	Oxidation Pond and floating wetlands with filtration and UV	Waipawa River
Waipukurau	Oxidation Pond and floating wetlands with filtration and UV	Tukituki River

Table 4: System Limitations

Community	Working Well	Not Working Well
Te Paerahi	Largely compliant	High flows, TSS peaks, some BOD peaks Tangata whenua objection to siting.
Porangahau	Largely compliant	High flows, TSS peaks & BOD removal Surface water discharge not desired.
Takapau	Largely compliant	High flows Surface water discharge not desired.
Otane	BOD removal	Very high wet weather flows, ammonia removal, floating wetlands. Surface water discharge not desired.
Waipawa	Phosphorus and BOD removal	Ammonia removal, floating wetlands, lamella clarifier, sand filter, UV, very high wet weather flows. Surface water discharge not desired.
Waipukurau	Phosphorus and BOD removal	Ammonia removal, floating wetlands, lamella clarifier, sand filter, UV, high wet weather flows. Surface water discharge not desired.

The general layout of the treatment systems is shown in Figures 3 to 5.

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Figure 3: General Layout of Waipawa, Otane and Waipukurau Discharges



Figure 4: General Layout of Takapau Discharge

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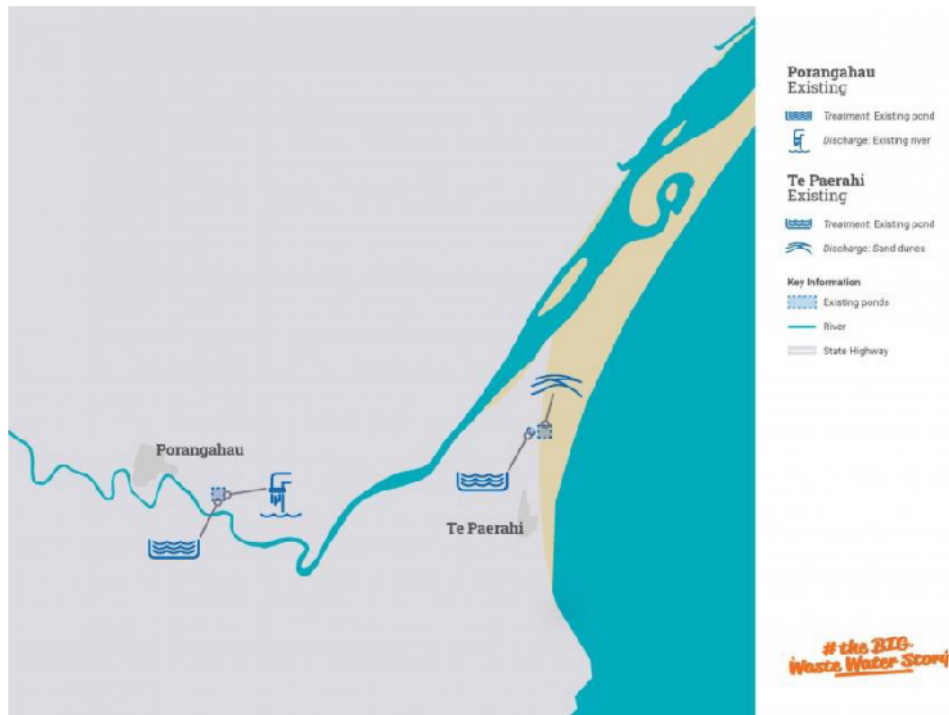


Figure 5: General Layout of Porangahau and Te Paerahi Discharges



8. WHAT'S REQUIRED TO BE ACHIEVED

Territorial Authorities such as CHBDC have obligations under the Local Government Act (LGA) to develop, manage and sustain wastewater facilities for their communities. Specifically, the LGA states:

14) Principles relating to local authorities

1) In performing its role, a local authority must act in accordance with the following principles:

...

*(h) in taking a **sustainable** development approach, a local authority should take into account—*

(i) the social, economic, and cultural well-being of people and communities; and

(ii) the need to maintain and enhance the quality of the environment; and

(iii) the reasonably foreseeable needs of future generations.

195) Discharge of sewage

(1) The discharge of domestic sewage into a sewerage drain under the control of a local authority in accordance with the bylaws of the local authority, and the discharge of trade wastes into a sewerage drain in accordance with trade wastes bylaws, is not a breach of—

(a) this Act; or

(b) the Resource Management Act 1991 or regulations made under that Act; or

(c) the Building Act 2004 or regulations made under that Act.

(2) However, this section does not absolve a local authority from liability for the discharge, in contravention of this Part or of the Resource Management Act 1991, of a contaminant from a sewerage drain under the control of the local authority.

(3) The Minister of Health may, by notice in the Gazette, declare that a bylaw made by a local authority and specified in the notice is a trade wastes bylaw for the purposes of this section.

Sustainability has multiple considerations. This includes economic, social, cultural and environmental; and much more than the historic focus on economic and environmental sustainability.

Community engagement regarding wastewater facilities has historically focused on the need to regulate and approve wastewater discharges through resource consent processes. While this is critical, equally so is the operation and financing of appropriate systems. Care is needed to ensure the right system is located in the right place and does the right job. Following this, the system can then be consented.

The impact of costs also needs to be considered when choosing a wastewater system, in that while a system **should be affordable** it should also seek to **not be a patch fix** and it should be **forward thinking**. This effectively means that the resource consenting for a discharge should



be for an appropriate system to meet the community's needs, and not solely focused on immediate compliance and environmental outcomes.

A critical consideration when considering costs is the operational requirements, with the need to ensure low capital and high operational costs are compared equally with high capital and low operating cost options. Such an approach needs to consider the financial implications over a period of time (e.g. 30 years); often referred to as a Whole of Life cost what provides for interest rate charges and borrowing potential over the life of an asset.

Further, the resource consenting process involves community participation, and part of that is considering the effects of a proposed discharge. **Adopting an approach that sees decisions made on potential options, particularly sites and methods, prior to a consenting process helps to streamline a consent process.** This is achieved through robust and appropriate community engagement **before resource consents are lodged.** The aim is that the community's desires and concerns have been heard and addressed in the option stages, before the necessary consents are applied for.

Community engagement and approval of wastewater options and changes is **not required.** However, it is considered best practice for achieving the necessary LGA and RMA functions. Equally, engagement with Maori is not essential, but as partners under Te Tiriti o Waitangi consultation with tangata whenua is desirable and in-line with best practice.

The regulatory environment could be seen as creating limitations for a strategy in that it is uncertain as to what is the target. This is particularly relevant with current freshwater reforms (as a result of the implementation of the National Policy Statement for Freshwater Management), funding challenges and opportunities coming from the Three Waters Reform process, and the implementation of Taumata Arowai – Water Services Regulator Bill. However, this Strategy actually takes the opposite approach and embraces the change in that we know things will change and we have to allow ongoing and continual improvement with how we manage and implement wastewater related infrastructure.



9. ENGAGEMENT

9.1 Iwi

An approach that provides for iwi engagement in developing wastewater solutions is considered to be critical to development of a suitable system. Specifically, when progressing through a resource consent process, Part 2 of the RMA (Sections 6, 7 and 8) requires consideration, regard and taking into account of the principles of Te Tiriti o Waitangi. Early, meaningful and open engagement is essential to demonstrate the fulfilment the Council's obligation to their treaty partners. An approach that provides for iwi engagement and participation in goal establishment in developing our wastewater solutions is considered to be vital to development of suitable systems for Central Hawkes Bay. This has been provided for the three wastewater projects (Projects 1 to 3).

Continuation of the surface water discharges for all communities is potentially consentable from an environmental stand-point, but there may be challenges from tangata whenua and the wider community. There is a preference by iwi that the surface water discharges are ceased (considered to be culturally abhorrent) and if they were to continue there would need to be strong justification that they are the **Best Practicable Option** (BPO). The unacceptability of surface water discharges is addressed in a report commissioned that provides an overview of the Maori Worldview on wastewater management (How, 2017).

The Hawke's Bay RRMP section 5.9.4 - Tukituki Implementation Plan, outlines the importance of collaboration with iwi and Tukituki hapu to develop a monitoring framework as follows:

3. To enable assessment and monitoring of the cultural values and mauri of the Tukituki Catchment the Hawke's Bay Regional Council will:

(a) Resource, subject to POLTT16(5), and assist iwi and Tukituki hapū in the development of a mauri monitoring framework, including the use of wānanga with relevant technical experts on at least the following:

- i. Marine and coastal ecology;*
- ii. River ecology and fish passage;*
- iii. Water quality (e.g. nitrate/nitrogen) and quantity; and*
- iv. Monitoring methodologies (e.g. mauri model, CHI, State of the Takiwa); and*

(b) Collaborate with iwi and Tukituki hapū to develop and implement a monitoring programme that gives effect to the mauri monitoring framework; and

(c) Work with the iwi and Tukituki hapū to jointly report annually on the outcomes of the monitoring and any recommended actions to Hawke's Bay Regional Council; and

(d) Incorporate the outcomes in the Plan Effectiveness Report.

The Central Hawke's Bay District Plan ([Proposed 2019](#)), and in particular in section 4.8, sets out the importance of engagement with iwi, and in particular notes:

4.8 IMPLEMENTATION METHODS

The principal methods of implementation of the foregoing policies are:



1. Partnership Accord: Te Taiwhenua o Tamatea and the Council have entered into a Partnership Accord to better facilitate the obligations in this District Plan as well as all other areas of mutual interest....

The key message that can be taken from the RRMP and the District Plan is if the existing discharge systems into surface water are to be continued, and for that matter any discharge, then **there will need to be consultation with tangata whenua and the affected community in determining the suitability of the treatment and discharge system.** Therefore, the Strategy needs to take on board this direction, particularly as it relates to the need for engagement.

9.2 Community

Leading on from the decision to consider wastewater management across the district was the initiation of a **Wastewater Reference Group** (Reference Group) to focus on development of solutions initially for Waipawa and Waipukurau, and then incorporating Otane. It was considered that solutions and experiences from Waipawa and Waipukurau could inform management solutions for the other communities, however, direct engagement with those communities should still be undertaken separately.

9.3 Engagement to date

Active Council engagement on wastewater issues with community has spanned more than 15 years, with a focus on Waipawa and Waipukurau. More recently, engagement with the wider community started in 2018 with the formation of a Reference Group to discuss issues surrounding primarily Waipawa and Waipukurau. The group consisted of community members and councillor representatives. Staff and technical advisors also contributed. The intent of this group was to identify issues and options for wastewater management.

While there are multiple wastewater options, the intention was the Group would identify key aspects that needed change and to identify potential solutions. This process was intended to lead into the development and identification of a solution to satisfy the requirements of the Supplementary Order required by June 2019.

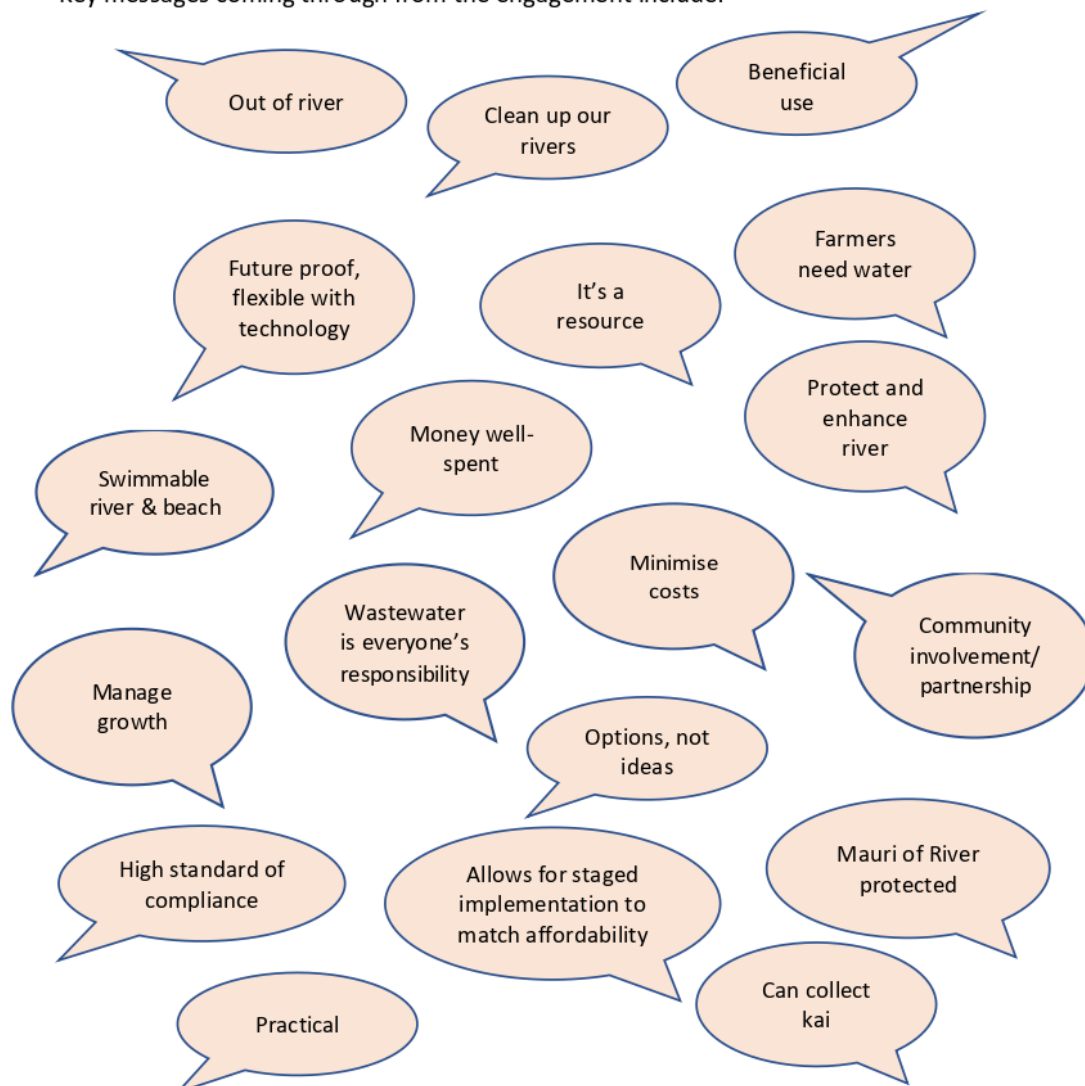
Options developed in conjunction with the Group were shared with the wider community in 2019, and there was general consensus of the Group and council proposals. The Group still exists, and have recently been updated, albeit with a discussion now including Otane.

Within the last 12 months engagement has also restarted with the Takapau, Porangahau and Te Paerahi communities. These three communities have a long history of having wastewater solutions discussed with Council. The example being the [Long Term Wastewater Strategy for Porangahau and Te Paerahi](#) (2012) produced between Council and the Porangahau Community.

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Key messages coming through from the engagement include:



Ongoing engagement is occurring with each community and forms a critical part of the ongoing [#TheBigWastewaterStory](#) strategy. Linked into this is now the development of refined options and seeking feedback through the Long Term Plan engagement process.



10. WHAT IS THE STRATEGY

The strategy is best seen as delivering and implementing the vision proposed by the Waipawa, Otane and Waipukurau Reference Group, being:

Our effluent is treated in a sustainable way that creates a resource, protects our environment, and continues to do so for generations to come.

While this Vision was developed with the Waipawa, Otane and Waipukurau Reference Group, it has been socialised with the Takapau, Porangahau and Te Paerahi communities and each group has concurred with the sentiment of the Vision.

Despite all community discharges having a largely indistinguishable impact on the river system, albeit with current consent non-compliance issues, there will be growth in the district and an increase in expectations surrounding water management. This will necessitate a need to improve effluent quality and its management over time. There is also a strong community desire or aspiration to remove direct surface water discharges, a view which is consistent across the wider district and strongly held by iwi. Therefore, either the discharge method needs to be changed (ideally away from the rivers) or fundamentally different treatment plants need to be installed at each community.

In the case of all communities there is a clear message – wastewater out of the river, improved treatment and beneficial use of treated wastewater. The ability to achieve this target is finance driven and at this time the delivery of this ultimate solution is simply unaffordable to the community. Despite the current unaffordability of the aspirational target, there are a number of intermediate design and improvement steps which can be undertaken in the next three to 10 years to improve discharge quality and the ability to meet compliance requirements and prepare for delivery of the aspirational goals of the future. Identification and access to alternative funding sources forms part of the Strategy. As funding becomes available the staging discussed in Section 5.4 sets out a clear pathway for works to deliver the Strategy.

A summary of the proposed stages for each Project is detailed below. These summaries are effectively the Best Practicable Option (BPO) for each project, albeit ongoing decisions need to be made as designs are advanced, consents are approved and funding is approved. Potential funding requirements are also detailed.

10.1 Scope of Projects 1 to 3

Projects 1 to 3 deal with wastewater treatment and discharge management. They are the focus of this Strategy and a lot of the necessary background information has been provided in earlier sections. To date a lot of background work and community engagement has occurred, and this is consistent with and has assisted to inform this Strategy. This work to date has effectively allowed the development of concepts that will result in the Best Practicable Options to be established for each Project. Detailed below is a summary of what is proposed for each Project.



Project 1: Waipawa - Otane - Waipukurau

Short term – less than 2 years

- Reticulate Otane to Waipawa
- Establish rapid infiltration system at Waipawa
- Minor treatment plant upgrades

Medium term – less than 5 years

- If appropriate design pipeline from Waipukurau to Waipawa
- Expand the rapid infiltration system at Waipawa

Longer term – less than 10 years

- If appropriate, build new treatment plant
- Decommission Otane treatment plant
- Decommission of old treatment facilities

Project 2: Takapau

Short term – less than 2 years

- Minor treatment upgrades
- Develop irrigation system

Medium term – less than 5 years

- Provide storage

Project 3: Porangahau/ Te Paerahi

Short term – less than 2 years

- Acquire land for irrigation
- Pipe Te Paerahi wastewater to a new irrigation site

Medium term – less than 5 years

- Establish irrigation for both Te Paerahi and Porangahau
- Cease discharge to Te Paerahi sand dunes
- Build storage
- Reduce discharges to the Porangahau River

Longer term – less than 10 years

- If appropriate, build a new treatment plant
- Develop alternative wet weather discharge
- Decommission unused infrastructure

Project 4: Residual Management

A focus of the discussion to date, and with the wider community, has been with managing the treated water. Running in parallel is a critical, and equally important, design discussion about managing residual products that can be generated from the treatment systems. This includes sludge from the bottom of ponds, sludge from new treatment plants, screenings and grit.



More sophisticated treatment systems may produce greater residuals, and potentially require different ways for it to be managed. As with the treated water, there are opportunities to manage the residual as a resource, which is in contrast with current practices that see it stockpiled with no intended use or landfilled. The forward options look to use the residual material as a resource.

The development of Project 4 is divided into current programmes and future programmes. The current programmes are largely operational while the future programmes are subject to further design work associated with Project 1 to 3.

Current programmes:

- Remove current dewatered sludge stockpile at Waipawa and Waipukurau – ideally applied to land.
- Desludge Waipawa and Waipukurau ponds.
- Apply for consents as needed.
- Develop a dedicated residual management strategy.

Future programmes:

- Plan for biosolids production from residuals at new and upgraded treatment plants.
- Identify future end use/disposal pathways and hence alignment of residual handling technology to suit.
- Interface with tradewaste review project to manage contaminants that would be detrimental to future reuse options.
- Decommission ponds systems as new treatment plants come online.
- Base case solution is assumed to be creation and management of a dewatered biosolids monofill cell on site at Waipawa.
- Apply for consents as needed.

Project 5: Loadings and Flow Management

A key aspect in managing wastewater is managing what needs to be treated and then discharged; and this is achieved by knowing and controlling what is coming into a treatment plant. Volume and composition are two key groups of parameters that help to decide what the treatment plant does and how it operates. While the treatment can modify the composition, knowing the volume is essential as it helps to inform the nature of discharge opportunities.

Key influences of volume and composition (Loadings and Flow Management) are:

- Reticulation management, and particularly the management of infiltration and ingress (I and I) i.e. leakage into the sewer network; and
- Trade waste contributions, which include industrial contributions and the likes of septage reception (septic tank sludges).

All community wastewater systems must manage reticulation and trade waste impacts. Understanding their nature determines the treatment required and discharge impacts. This can change over time, as communities grow and sewer networks expand, and as industry is attracted to communities.



All of the six Central Hawke's Bay communities will have some degree of reticulation I and I. Understanding it and having a plan to reduce where appropriate is critical. This may change over time as reticulation infrastructure ages and renewal programmes take effects.

Waipukurau is the community that is currently most influenced by industrial discharges, with current industry accounting for more than 50 % of the community's organic load to the treatment plant and less than 15 % of the flow. Subtle changes in the volume and composition can have a significant impact on treatment plant selection and design. A further important aspect is having confidence in the potential for changes over time, requiring growth projections of not just the residential population to be considered, but also changes in industry.

The nature and type of treatment plant required, as influenced by reticulation and tradewaste, then influences the management of residuals, as set out in Project 4.

Current programmes:

- Tradewaste review programme.
- Tradewaste bylaw review.
- I and I programme.
- Reticulation renewals.
- Growth planning.

Future programmes:

- Tradewaste development strategy.
- Reticulation and sewer management strategy.



11. REFERENCES

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5.5 KEY PROJECT STATUS REPORT - BIGWASTEWATERSTORY

File Number: COU1-1410

Author: Darren de Klerk, 3 Waters Programme Manager

Authoriser: Monique Davidson, Chief Executive

Attachments: 1. Key Project Status Report - BigWastewaterStory #2 [↓](#)
2. Wastewater Projects - Pre Engagement Booklet _Aug 2020 [↓](#)

PURPOSE

Following the conception of #thebigwaterstory, Council set about implementing the programme that makes up #thebigwaterstory. A programme manager was appointed and focus given to defining the projects that form the programme in greater detail.

The six wastewater plants form a significant programme of works themselves, and we have prudently decided to report on the progress of these six wastewater plants and their subsequent upgrades and re-consenting separately from #thebigwaterstory.

The purpose of this key project status report serves as an opportunity to formally report to elected members on the progress of each of the projects and their expected delivery against time, scope, budget and quality standards against the larger programme objectives.

RECOMMENDATION

That, having considered all matters raised in the report, the report be noted.

SIGNIFICANCE AND ENGAGEMENT

This report is provided for information purposes only and has been assessed as of minor significance.

BACKGROUND

Following charges in relation to the Waipawa wastewater treatment plant in 2016/ 2017, Council commissioned technical reviews into the Waipawa and Waipukurau wastewater plants, in summary the advice received from two independent experts, outlined the plants with their current treatment system and in their current state would never be able to meet consent compliance, in particular for ammonia. Council commenced work to respond to the court order and investigate a new treatment and discharge scheme in 2018.

The Otane wastewater plant had in 2017, received a new consent to upgrade the treatment system onsite and continue to discharge to the 'unnamed farm drain' and eventually to the Papanui stream. In mid-2018, just prior to awarding tenders for this upgrade, Council officers recommended to Council, that the Otane wastewater system be included in the Waipawa and Waipukurau review, and the onsite upgrade be placed on hold. In 2019, it was identified that the best practicable option for Otane was to convey to Waipawa for treatment and ultimately discharge, Otane is now firmly in the planning for the future of these plants.

The plants went through a robust community engagement process via a community reference group to identify preferred options to investigate and design for engagement in Long Term Plan 2021. These options will be presented at concept design level to the community as part of pre engagement in July 2020, and as formal engagement in early 2021. While some necessary works continue at all plants in conjunction with these major long term plans.

The Takapau wastewater plant received a 3 year consent extension through to October 2021, to allow Council to investigate different options for discharge.

The Porangahau and Te Paerahi wastewater plants both have their consents expiring in May 2021.

This programme of work across the six wastewater plants signals the need for specific reporting across this programme and its progress. In addition the need to implement robust management controls through the formation of a project control group and project governance group.

DISCUSSION

The detail is outlined with the attached key project status report

IMPLICATIONS ASSESSMENT

This report confirms that the matter concerned has no particular implications and has been dealt with in accordance with the Local Government Act 2002. Specifically:

- Council staff have delegated authority for any decisions made;
- Council staff have identified and assessed all reasonably practicable options for addressing the matter and considered the views and preferences of any interested or affected persons (including Māori), in proportion to the significance of the matter;
- Any decisions made will help meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses;
- Unless stated above, any decisions made can be addressed through current funding under the Long-Term Plan and Annual Plan;
- Any decisions made are consistent with the Council's plans and policies; and
- No decisions have been made that would alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or would transfer the ownership or control of a strategic asset to or from the Council.

NEXT STEPS

To continue to progress the short term improvements, and the long term programme in conjunction, in preparation for community engagement as part of long term plan 2021.

To progress the work set out in the wastewater strategy and then as committed to in Council's funding and delivery plan in Tranche One of the 3 Waters reform programme.

To continue with prudent and robust programme management, the six wastewater projects now form their own programme, to provide appropriate oversight, it is planned that Council form a formal project control group, and a project governance group.

RECOMMENDATION

That, having considered all matters raised in the report, the report be noted.



Key Project Status Report #2



PROJECT NAME	#theBigWastewaterStory - Key Project Status Report		
Release Date	08/10/2020	Report #	2
Key Benefits	<p>#thebigwastewaterstory is the overarching programme of works required to upgrade and re-consent all six of our wastewater projects. These plants either have compliance problems, or have consents expiring in the near future.</p> <p>Consistent with #thebigwaterstory, the following key objectives identify the drivers for the projects.</p> <ul style="list-style-type: none"> • Upgrade infrastructure so that it will last longer and we can maintain and improve service levels • Meet changing legislative and compliance requirements relevant to 3 waters assets • Ensure we are providing for smart growth in the District including the rapidly growing number of new homes being built in our residential areas and forecast over the next 10 years • Deal with wastewater and stormwater to ensure minimal impact on our rivers • Ensure we do not burden future generations with aging infrastructure <p>The vision created by the wastewater reference group is to ensure: <i>"Our effluent is treated in a sustainable way that creates a resource, protects our environment and continues to do so for generations to come"</i></p>		
Project Delivery Objectives	<p>To deliver the capital projects in the allocated year/s that align with future resource consent together to budget and quality whilst ensuring maximum community benefit from these projects. Communicate and engage with the community on the programme and the progress of each project.</p> <p>Provide input through the design and improvement projects to future infrastructure works and asset management plans, to inform where future expenditure and improvements are targeted for the betterment of infrastructure in the district.</p>		



Key Project Status Report #2



Report/ Document History

Report No.	Report Date	Report Frequency	Project Sponsor	Project Manager
1	18/06/2020	Quarterly	Josh Lloyd	Darren de Klerk
2	08/10/2020	Quarterly	Josh Lloyd	Darren de Klerk

Sponsor's Project Delivery Confidence Assessment



INTRODUCTION

This report will provide regular information on the fixed objectives and dynamic progress of the wastewater upgrade projects across the district.

The report provides an introduction as well as background and contextual information on the wastewater projects and then becomes more detailed discussing programme and project progress and risk.

BACKGROUND

As part of Project Thrive, the importance of water to our community was one of the loudest messages. This, combined with a vision for growth and prosperity, environmental responsibilities, as well as strong and durable infrastructure is how **#thebigwaterstory** began.

To deliver the improvements required, Council has developed a programme of upgrades and improvements to ensure that the drinking water, wastewater and stormwater infrastructure is able to meet the current and future needs of the community.

Following project THRIVE, creation of The Big Water Story brand, and adoption of the LTP in 2018, attention and focus have shifted from discussion and consultation to planning and delivery. Projects must be sequenced and prioritised based on several factors. This holistic approach to managing several interrelated projects to achieve a single promised outcome is referred to as Programme Management.

The wastewater projects due to their significance have now been removed from **#thebigwaterstory** report and will now be reported specifically through this report.

This report will cover the six wastewater plants and provide transparency on the process and developments for each.

OBJECTIVE

To deliver upgrades as outlined in design and consenting packages that are endorsed by community and regional council while remaining fit for purpose, affordable and able to be financed.

This key project status report serves as an opportunity to formally report to elected members on the progress of each of the projects and their expected delivery against time, scope, budget and quality standards.



Key Project Status Report #2



1. Overall Confidence Assessment

Key Questions Impacting on Project Objectives				
	No	Yes		
1	Are there Business Case Benefit attainment problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	As we create the design and consultation documentation for LTP 2021 – we undertake a business case like review for each project through a MCA options review process.
2	Are there Scope Control problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Options will be identified which when refined will allow us to refine the scope for each option
3	Will Target Dates be missed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Currently on track to deliver each package to agreed timeframes
4	Will Project Costs be overrun?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Currently project costs are being developed. General funding is a major risk.
5	Are there Quality problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None at present
6	Are there Resource problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Internal resourcing is tight and stretched to deliver the packages of upgrades – but we continue to make good progress
7	Are there Risk Management problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Risk workshops are held and registers developed for each project to highlight and allow mitigation
8	Are there Review and Approval problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The process for internal review and approval is working well.
9	Are there Teamwork problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None present
10	Are there Stakeholder problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Community meetings are progressing for each project at milestones and information progresses
11	Are there Iwi issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Iwi engagement is ongoing, and we would benefit from additional assistance in this area
12	Are there Communication problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None present
13	Are there Change Management problems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None present
14	Are there Health & Safety issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None present

Project Manager's Progress Summary

Key Project Activities Status

This is the second key project status report on the programme, but the sixth update.

Project	Achievement	When
Waipawa Wastewater		
Basis of Design	Reviewed and finalised	COMPLETED
Concept Design	Draft reviewed – to be finalised	COMPLETED
Inlet Works	Pipeline redirected, flow meters installed	COMPLETED
Tertiary Improvements	New sludge pump installed, and analysers commissioned	COMPLETED



Key Project Status Report #2



Walker Road GW monitoring bores	Consent lodged and received for 6 bores Bores Installed	COMPLETED
Walker Road Land	FEMP lodged with HBRC	COMPLETED
Waipawa Trunk Sewer Main	Lining completed	COMPLETED
Waipukurau Wastewater		
Basis of Design	Reviewed and finalised	COMPLETED
Concept Design	Draft reviewed – to be finalised	COMPLETED
Sludge Survey	Survey of pond with boat completed	COMPLETED
Dry Weather Flow Gauging	Completed and incorporated into I&I studies	COMPLETED
Otane Wastewater		
Otane Infiltration and Inflow	Study completed and findings to be presented	COMPLETED
Sludge Survey	Survey of pond with boat completed	COMPLETED
Stage 1 – Otane to Waipawa Pipeline	Site established – pipe delivered	COMPLETED
Takapau Wastewater		
Basis of Design	Reviewed and finalised	COMPLETED
Flow Meter/ Screen Project	Awarded to Veolia	COMPLETED
Groundwater monitoring bores	Consent lodged	COMPLETED
Porangahau Wastewater		
Basis of Design	Reviewed and finalised	COMPLETED
Community meeting #2	Meeting held and minutes released	COMPLETED
Te Paerahi Wastewater		
Basis of Design	Reviewed and finalised	COMPLETED
Community meeting #2	Meeting held and minutes released	COMPLETED
Issues/ Risks that have arisen since the last status report		
This section will be expanded/ updated in subsequent quarterly Key Project Status Reports.		
Project	Risk	Proposed Control



Key Project Status Report #2



Funding	Unable to fund project	Funding applications, understanding
Operational Compliance	Compliance breaches during planning for long term upgrades	Heightened maintenance, improvements to plants
Timelines	Unable to deliver on milestones	Strict and robust project management
Community Engagement	Negative community perception, or lack of understanding	Planned engagement, and use of reference groups
Iwi Engagement	Negative perception, or lack of understanding, or ability to be involved	Targeted engagement

Key Activities to be started/completed or in progress over the next 2-3 months

Project/ Item	Action/ Activity	Forecast Completion
Waipawa Wastewater		
Wetlands	Removal of wetlands	Underway Sep 2020 to Nov 2020
Dry sludge	Consent for dry sludge removal to forest blocks and implementation along with prep for future desludging	Consent Lodged Sep 2020
De-sludging	Gain consent for future de-sludging and tender this work out	Oct – Nov 2020
Comms package	Release stage 1 of comms package as part of LTP pre-engagement	Ongoing
Waipawa Pump Station	Complete power upgrade and commission upgrade McGreevy Street pump station	Sep – Oct 2020
Waipukurau Wastewater		
Wetlands	Removal of wetlands	Underway Sep 2020 to Nov 2020
Dry sludge	Consent for dry sludge removal to forest blocks and implementation along with prep for future desludging	Consent Lodged Sep 2020
De-sludging	Gain consent for future de-sludging and tender this work out	Oct – Nov 2020
Compliance improvements	Process, programming and ongoing operational improvements	ongoing

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Key Project Status Report #2



Otane Wastewater		
Wetlands	Removal of wetlands	Underway Sep 2020 to Nov 2020
Pump station design	Develop PS design	Sep – Nov 2020
Otane to Waipawa Pipeline (Stage 1)	Complete Stage 1	Oct 2020
Otane to Waipawa Pipeline (Stage 2)	Commence Stage 2	Nov 2020
Otane consent variation	Lodge consent variation	Oct 2020
Compliance improvements	Install new Aerator, investigate solution for TSS, CBOD5, and P reduction	Ongoing
Takapau Wastewater		
Flow Meter/ Screen	Delivery of new inlet flow meter	July 2020 – Mar 2021
GW monitoring bores	Installation of bores for monitoring water flow, pond leakage	Oct 2020
Concept Design	Release draft Concept Design incl. BPO	Sep 2020 COMPLETE
Makaretu River Model	Undertaken river model	COMPLETE
Community engagement	Present BPO and gain feedback	Ongoing
Iwi Engagement	Work with Iwi to gain input into option, and commence a CIA	Ongoing
Landowner engagement	Work with neighbouring landowners to develop an provide input into BPO	Ongoing
Porangahau Wastewater		
Concept Design	Release draft Concept Design incl. BPO	COMPLETE
Porangahau River Model	Undertaken river model	COMPLETE
Community engagement	Present BPO and gain feedback	Ongoing
Iwi Engagement	Work with Iwi to gain input into option, and commence a CIA	Ongoing
Landowner engagement	Work with neighbouring landowners to develop an provide input into BPO	Ongoing
Compliance improvement	Investigate short term improvement for TSS over summer	Aug 2020 – Dec 2020

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Te Paerahi Wastewater		
Concept Design	Release draft Concept Design incl. BPO	COMPLETE
Community engagement	Present BPO and gain feedback	Ongoing
Iwi Engagement	Work with Iwi to gain input into option, and commence a CIA	Ongoing
Landowner engagement	Work with neighbouring landowners to develop an provide input into BPO	Ongoing
General Comments		
A lot of work is happening across the wastewater plants and we continue to apply focus on the delivery, communication, operational improvements as we deliver on short term improvements as we focus and create the longer term solution.		
Our current focus is on improvements to the plants in the short term while the long term improvements take place.		
The other focus areas are on engagement, landowner and funding to work towards the long term plan.		

Programme Financial Update

Financial management of these projects requires creation internally of a project specific ID for each project. This allows for management of costs and understanding of progress against budget – further detail available on request

Key Project Statistics	Budget	Expenditure incl. commitments	Variance
	Whole Life (\$)	At 30 Sep 2020	
WPK WPA Wastewater Treatment Investigation	2,121,267	1,765,049	356,216
Takapau Wastewater Upgrades	936,353	486,678	449,675
Porangahau/ Te Paerahi Wastewater Upgrades	1,849,485	275,234	1,574,251
Otane Wastewater Pipeline (Stage 1)	1,204,570	1,164,418	28,314
Waipawa Trunk Sewer Main Renewal	1,782,871	1,604,431	178,440

Project Delivery Confidence Assessment Key

Overall confidence remains high, with attention required constantly by the programme team to deliver on outcomes. There remains potential for issues/ risks to arise and some delays may be probable. Risks will be addressed through the project, and monitored through the project lifecycle. Funding and community engagement remain the highest risks currently.

Significant work has been done as part of the pre-engagement works.

An engagement site has been setup on social pinpoint: <https://chbdc.mysocialpinpoint.com.au/chbdc-ltp-engagement/ltp-wastewater-home/> Our website holds a large amount of the detail on this pre-engagement: <https://www.chbdc.govt.nz/our-district/projects/the-big-wastewater-story/>

#the BIG
Waste Water Story

Key Project Status Report #2

CENTRAL
HAWKE'S BAY
DISTRICT COUNCIL

Key	Attention Required	Issues/Risks	Delivery
	Minimal	None	On Time
	Constant	Potential	Delays Probable
	Manage	Exist but resolvable	Delays Likely
	Urgent	Major	Delays
	Critical	Critical	Major delays. Re-scope/Re-assess

Project Photos

Below are photos of the projects in action.

Photo can also found on the council website: <https://www.chbdc.govt.nz/our-district/projects/>

Waipawa Wastewater Plant – Concept Treatment Plant



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Waste Water Story

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HAWKE'S BAY
DISTRICT COUNCIL

Concept – Subsurface Rapid Infiltration Bed – Shotover, Queenstown

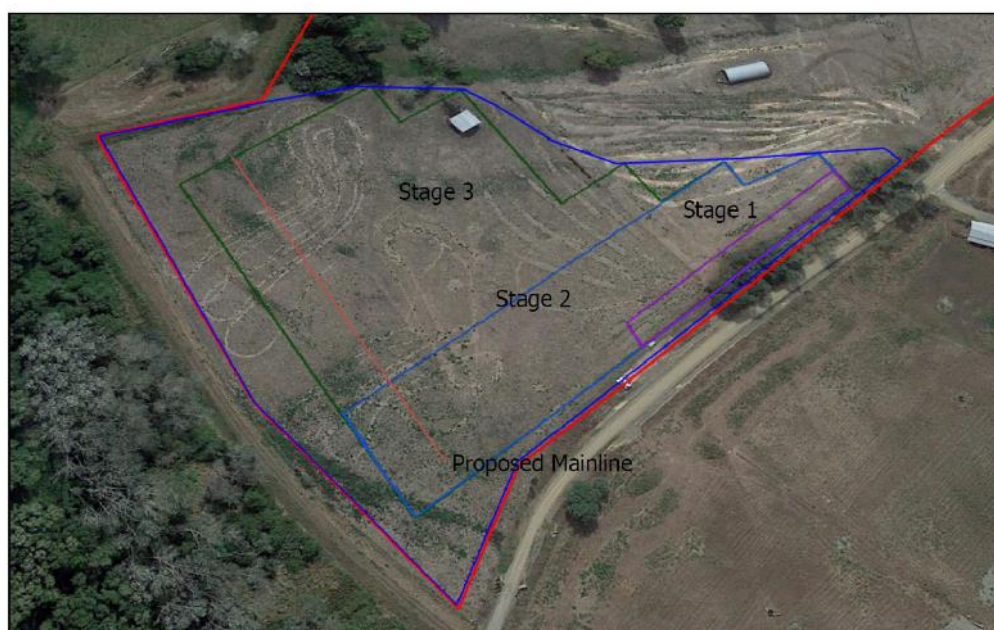


Figure 1: Potential Stage development of Rapid Infiltration Basin

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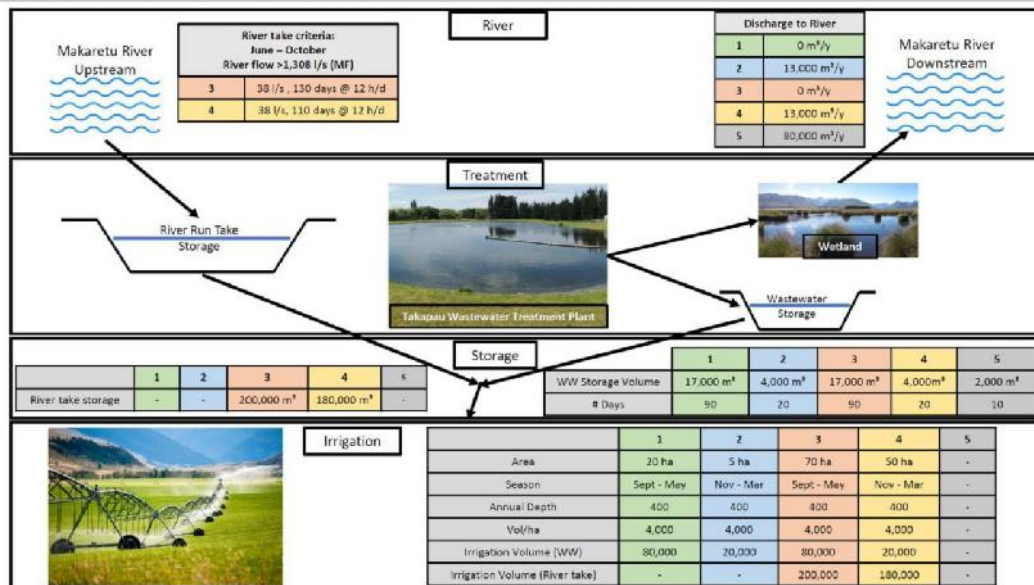


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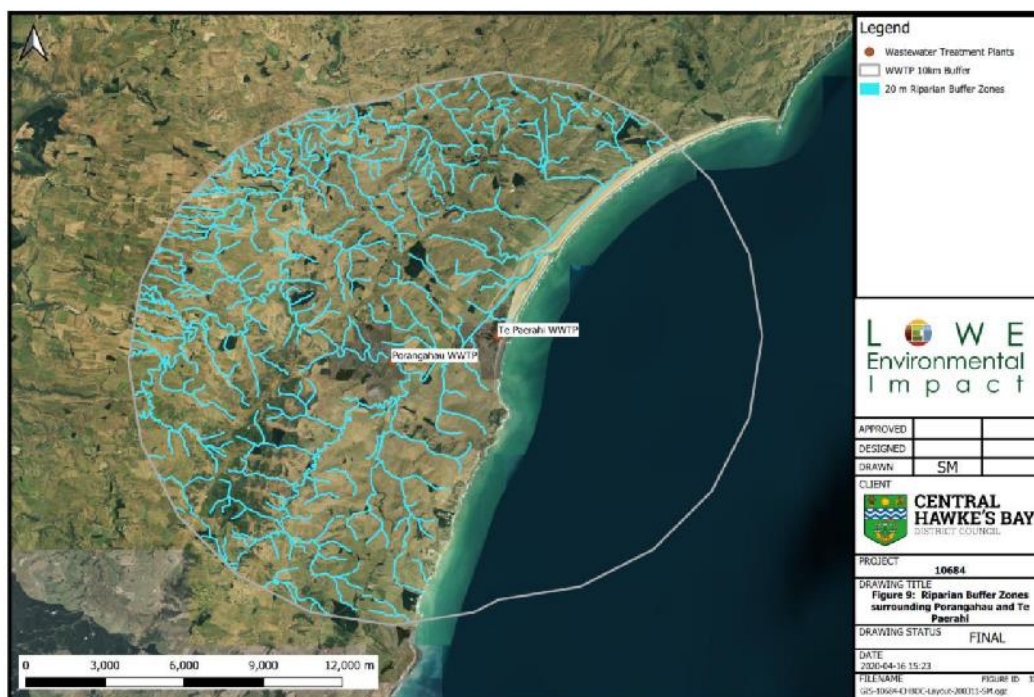
**CENTRAL
HAWKE'S BAY**
DISTRICT COUNCIL

Takapau Concept Option for Landowner discussion

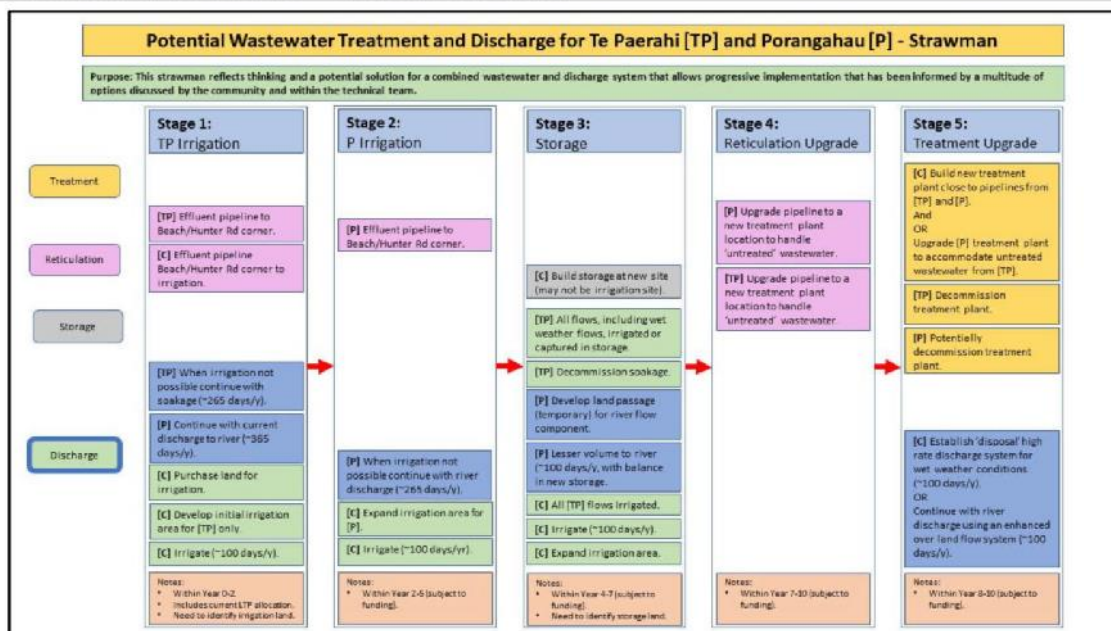


Key Project Status Report #2

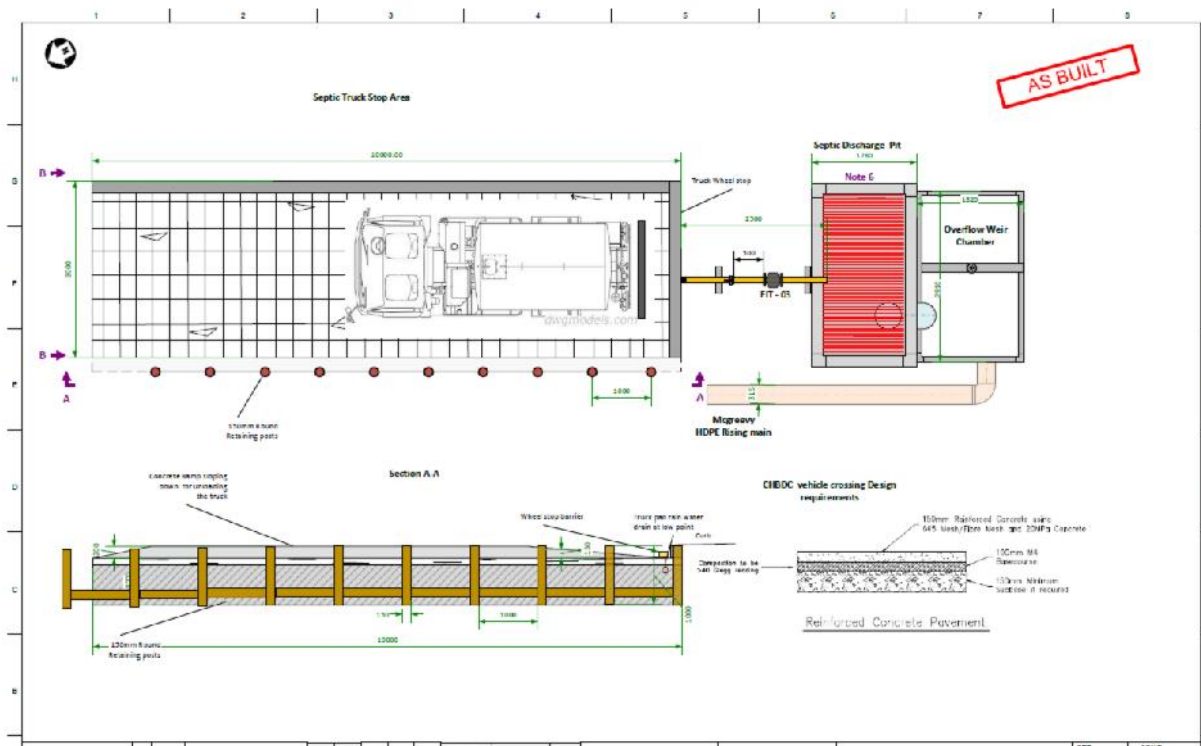
Porangahau / Te Paerahi Land Suitability Review



Porangahau/ Te Paerahi – Staging Strawman



Waipawa Inlet Works



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**CENTRAL
HAWKE'S BAY**
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Takapau Inlet Works



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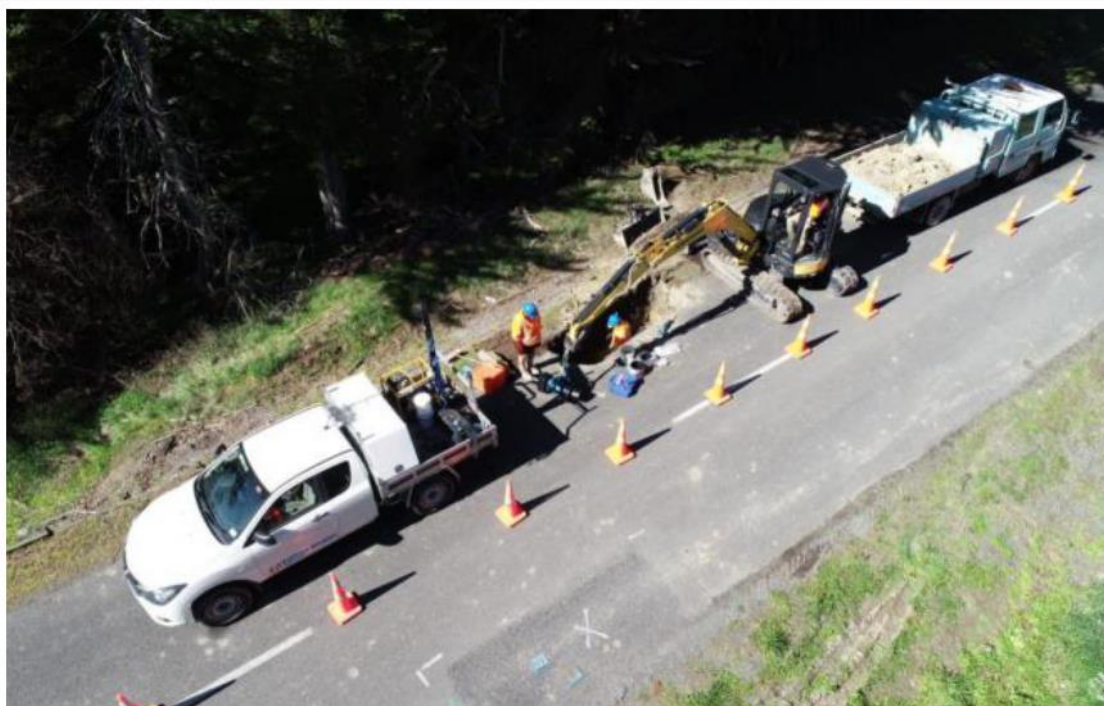
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Key Project Status Report #2



**CENTRAL
HAWKE'S BAY**
DISTRICT COUNCIL

Otane to Waipawa Pipeline – Stage 1



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**CENTRAL
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Floating Wetlands Removal



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Our thriving future!

The Big Wastewater Story

Be part of Central Hawke's Bay's big conversation and secure the future of our community's wastewater.

Feedback closes at midnight 23 Aug 2020.

Tell us what your preferred option to manage wastewater is?

www.chbdc.govt.nz/the-big-wastewater-story

#theBIGWasteWaterStory

 **CENTRAL HAWKE'S BAY**
DISTRICT COUNCIL

This is your

#the BIG Waste Water Story

Have an early say on the future of our waste water.

Durable infrastructure is essential to our district's future. You've told us that water specifically is critical to the growth and wellbeing of Central Hawke's Bay and because of this, improvements to our water infrastructure have been, and will continue to be, a focus. We now need to step up our investment, to fix historical problems with our wastewater network, while taking the opportunity to make a positive change for the future – meeting a heightened environmental responsibility, and planning for imminent population growth. Join our big conversation – The Big Waste Water Story.

Wastewater is the water you use and pass back, usually in a less clean form. It comes from showers, toilets, laundries and kitchens at home, and commercial buildings and industries. Importantly it is our water.

We have been signalling for some time that we need to have a conversation with you about the way we treat and discharge our wastewater. This is a big conversation, which together we'll be making some huge environmental and financial decisions that will have a significant impact on our future.

It's no secret that Central Hawke's Bay's wastewater network presents a challenge ahead. Each of our treatment plants is in need of upgrades to either meet new environmental requirements, or to improve compliance with current regulatory rules. We must make changes to achieve consent, however alongside this is our opportunity to future proof for any change that might be ahead, including tighter regulation, climate change and population growth. Alongside all of this, we want


to meet the aspirational goals we have heard from the community so far, as to how you'd like to see our wastewater being managed for generations to come.

This is the Big Waste Water Story, and the discussion starts now. Central Hawke's Bay District Council is working behind the scenes to set the direction of the 2021-2031 Long Term Plan, and we want to make sure we're on the right track. So, we're inviting you to have your say now, before we formally consult on the upcoming Long Term Plan, early in 2021.

This guide explains the various ways that we could do things in the future, and what the costs and environmental implications of these options might be.

We want to hear your thoughts on all of this.

You can have your say online, at www.chbdc.govt.nz/the-big-wastewater-story, or you can fill out the survey included at back of this booklet and return it to us by post, or by dropping it in to the Council Office, Waipawa Library, or Waipukurau Pop-up Service Centre.



We need to know your preferred options for the future of our wastewater systems

"Our effluent is treated in a sustainable way that creates a resource, protects our environment and continues to do so for generations to come."

Our Current Wastewater Network

Central Hawke's Bay District Council owns and operates six wastewater treatment plants – each of which have been inherited with their challenges. Three of the plants – Porangahau, Te Paerahi and Takapau – have consents expiring in 2021. Otane's consent expires in 2042, but requires an upgrade by 2021, and Waipawa and Waipukurau's content expires in 2030 – but both have significant performance issues.

Our treatment systems are predominantly conventional oxidation ponds with the two larger plants in Waipawa and Waipukurau having additional treatment to remove bugs. Our treatment plants manage predominantly domestic and commercial wastes. However, Waipawa and Waipukurau also have some trade waste contributors. Currently, five of our wastewater plants discharge directly to our rivers, and one to land via sand dunes.

Over the past year, Council has worked hard with the support of the community and made significant strides forward in planning for the future of our wastewater in Central Hawke's Bay, consistent with the vision that

"our effluent is treated in a sustainable way that creates a resource, protects our environment and continues to do so for generations to come."

Future-Proofing our Wastewater: The Options

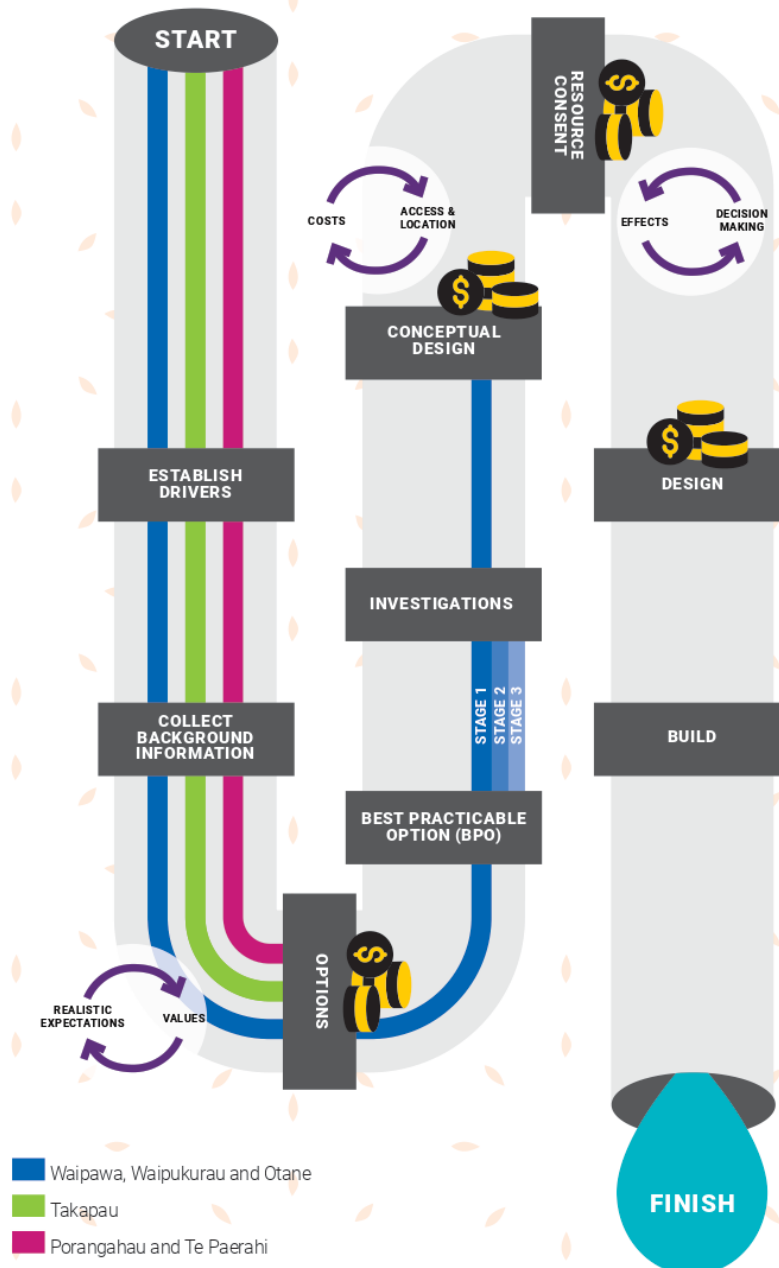
We have heard, through our community meetings to date, that the Status Quo is no longer acceptable. The current river discharges are no longer okay, we need to future proof for growth and to comply with impending changes to freshwater standards.

Council experts have worked to develop cultural, environmental and engineering aspirations for our new and improved wastewater infrastructure. But this comes with a significant cost, anticipated to be approximately \$66m for the entire programme of work. And this cost is a challenge. We're pulling out all the stops to alleviate these challenges as much as possible, while working in the background to undertake operational and minor capital improvements to achieve compliance and better performance.

Further into this guide, we'll outline the potential costs for each option, for each of the three projects. While the numbers are significant for a small rural council, if we work hard now to build wastewater infrastructure the way we want to, Central Hawke's Bay will be in an excellent position to build on these upgrades and use our waste as a resource into the future.

Wastewater Upgrades Process

Outlined below are the steps and gateways as we work towards a best practicable option and new resource consent(s) for our wastewater systems

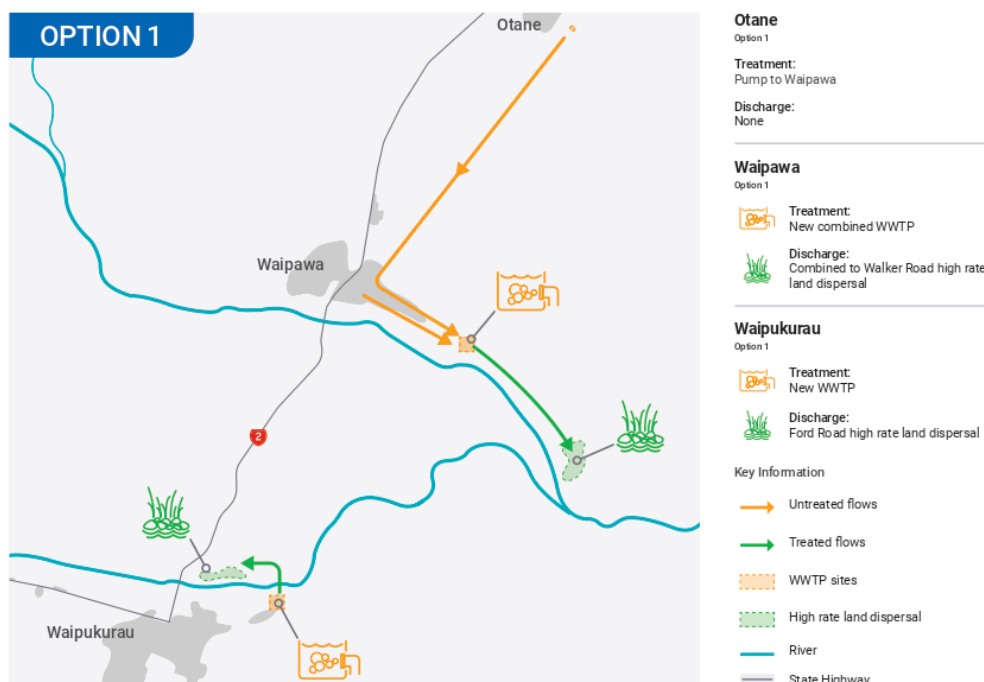


PROJECT ONE | Upgrades to the Waipukurau/Waipawa/Otane Wastewater Systems

In 2019, we formally responded to an environment court order concerning the Waipawa Wastewater Plant and outlined a proposed long term plan for the future of Waipawa, Waipukurau and Otane's wastewater.

Following two independent reviews, we know that the current Waipawa and Waipukurau plants will never be able to achieve compliance. This means that in order to meet regulations, major upgrades will need to take place. Otane's current Wastewater Treatment Plant also required an upgrade to meet consent. To help guide our direction, a formal analysis took place through 2018 and 2019 which resulted in the decision that Otane's wastewater should be conveyed toward Waipawa for treatment and discharge.

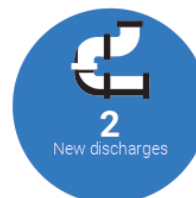
Through all of this, Council has been working closely with community members to develop options which focus on generational thinking to ensure a positive balance between the environmental health of our District, the strength of our infrastructure to enable Central Hawke's Bay to Thrive, and affordability for all of our people.



- A new Wastewater Treatment Plant is built in Waipawa
- Otane's wastewater is conveyed via pipeline to Waipawa's Wastewater Treatment Plant
- Waipawa/Otane Discharge to Walker Road Land – Rapid Infiltration beds
- A new Wastewater Treatment Plant is built for Waipukurau
- Waipukurau's Discharge to Ford Road (TBC) to Land – Rapid Infiltration beds

Benefits

- No more direct river discharge (apart from major rain events)
- No more discharge to the Papanui Stream
- A high level of treatment prior to land discharge
- Has the ability to grow as the community grows
- Able to entice industry growth

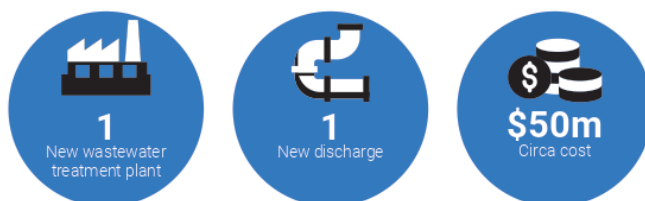




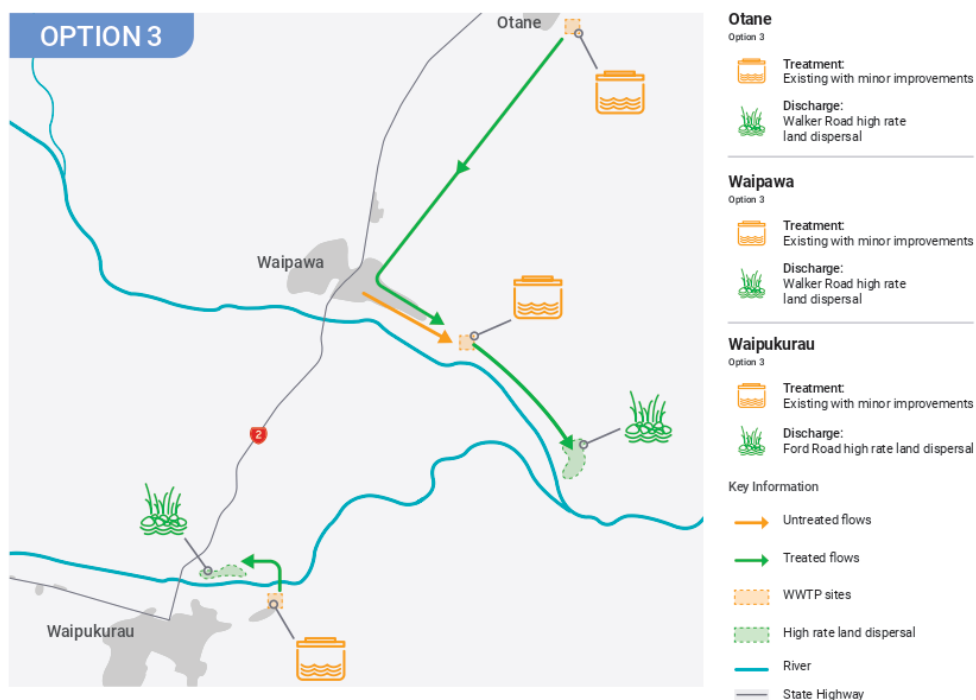
- A standalone, new Wastewater Treatment Plant is built in Waipawa
- Discharge to Land at Walker Road through a Rapid Infiltration Bed
- Otane and Waipukurau's wastewater conveyed via pipeline to the Waipawa Wastewater Treatment Plant

Benefits

- No more direct river discharge (apart from major rain events)
- One plant in a rural out of urban zone location
- No more discharge to the Papanui Stream
- A high level of treatment prior to land discharge
- Has the ability to grow as the community grows
- Able to entice industry growth
- Transition away from a plant in Waipukurau



Upgrades to the Waipukurau/Waipawa/Otane Wastewater Systems



- Minor Upgrades to Waipawa's existing Wastewater Treatment Plant
- Otane's wastewater is conveyed via pipeline to Waipawa's Wastewater Treatment Plant
- Waipawa/Otane Discharge to Land at Walker Road via a RIB
- Minor Upgrades to Waipukurau's existing Wastewater Treatment Plant
- Waipukurau's Discharge to Land at Ford Road (or similar) via a RIB

Benefits

- No more direct river discharge (apart from major rain events)
- No more discharge to the Papanui Stream

HOW PROJECT ONE MIGHT BE STAGED?

The way we stage this work will impact the immediate effect on Central Hawke's Bay's rates.

- All at once within 2 - 3 years
- Staged within 5 years
- Staged within 10 years

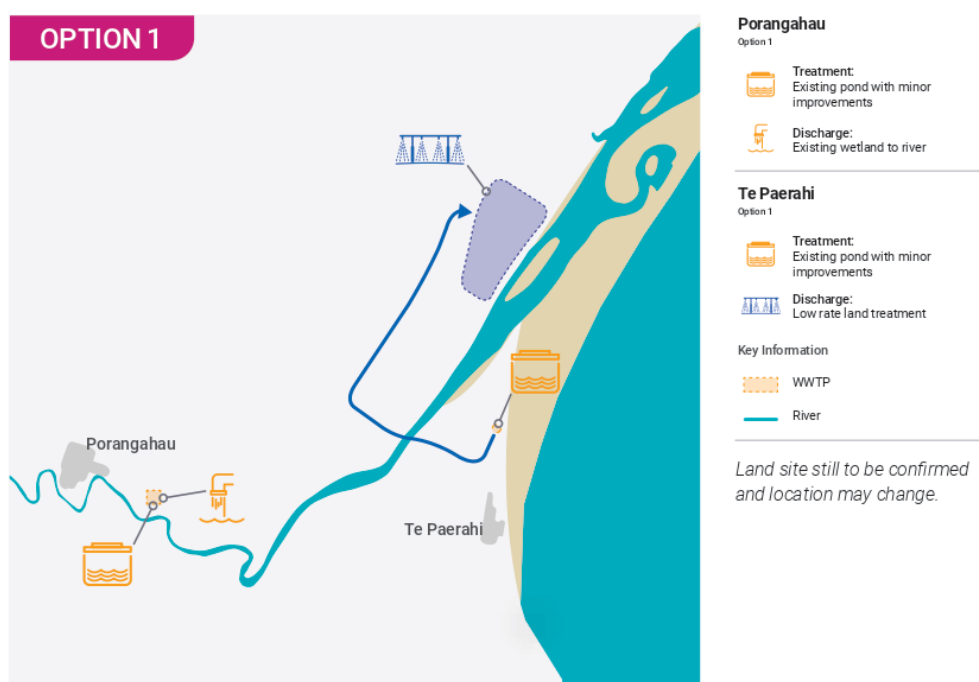
For further details, visit
www.chbdc.govt.nz/the-big-wastewater-story



PROJECT TWO | Re-consenting, then upgrades to the Porangahau and Te Paerahi wastewater systems

The Porangahau and Te Paerahi Wastewater Treatment Plants consents expire in 2021.

A condition of these consents were that Council work on removing the current Te Paerahi Treatment Plant and discharge from its current site, and to work toward ceasing river discharge into the Porangahau River. When the current Council began preparations for replacing these consents in 2018, we recommenced discussions with the community on how this should happen.



- Minor treatment improvements at both current Wastewater Treatment Plants
- Convey wastewater (build pipeline) from Te Paerahi to the new land site
- Construct a new land discharge site
- Continue to discharge Porangahau to river but at slightly better treatment

Benefits

- Improved treatment levels
- Land discharge site established
- Reduced discharge to sand dunes
- New consent
- Able to grow when funding available
- Meets one part of cultural aspirations

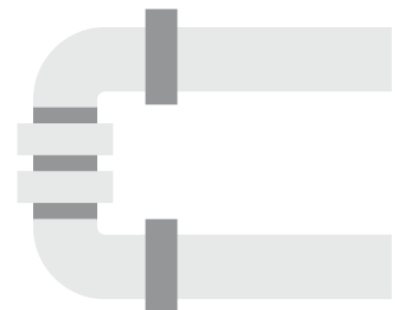
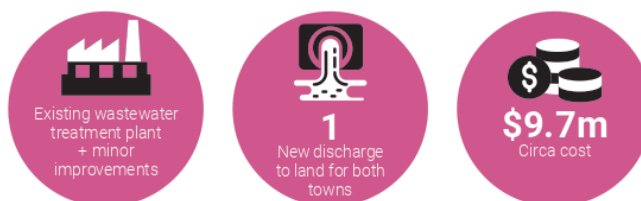




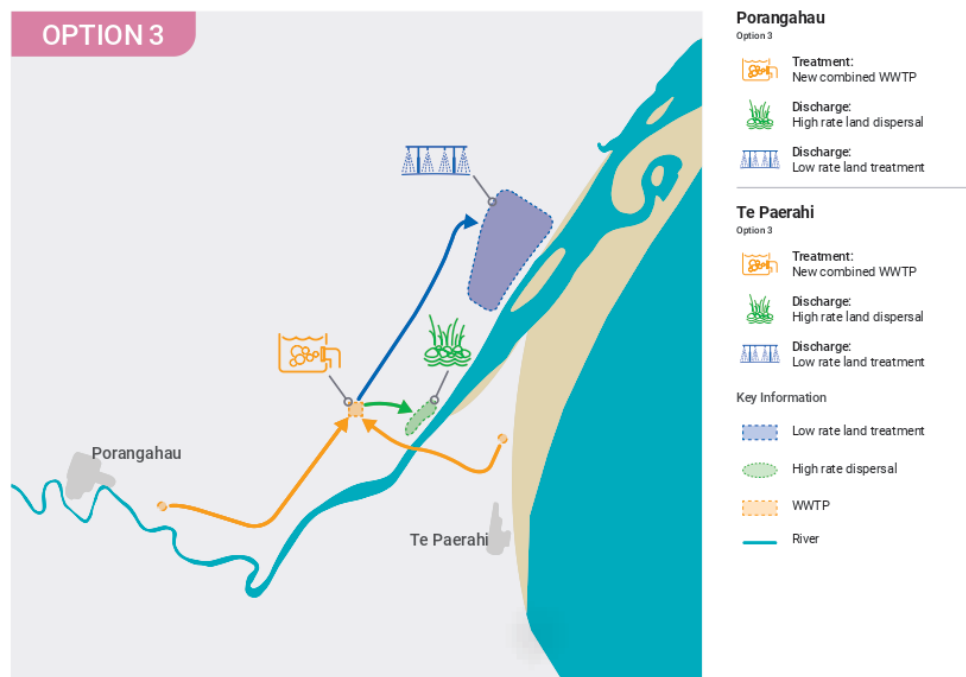
- Construct a new centralised land discharge site.
- Convey wastewater from Te Paerahi and from Porangahau to the new land discharge site.
- Continue to treat at Porangahau, but convey to the new landsite for discharge but allow for Porangahau river discharge in high flows.
- Continue to treat at Te Paerahi
- Minor improvements to both treatment plants

Benefits

- Improved treatment levels
- New common land discharge established
- Reduced discharge to sand dunes
- Reduced discharge to river
- New consent
- Able to grow when funding available
- Meets one part of cultural aspirations



Re-consenting, then upgrades to the Porangahau and Te Paerahi wastewater systems



- Convey Te Paerahi's and Porangahau's wastewater to common land site for disposal
- Construct a new land discharge site.
- Build storage to allow all wastewater to a land-based site
- Minor improvements at both sites

Benefits

- Improved treatment levels
- New common land discharge established
- Cease discharge to dunes and to river
- New consent
- Able to grow when funding available
- Further meets cultural and environmental aspirations



Although outlined as options, these options – could also be seen as stages that could be delivered as funding is available

Visit www.chbdc.govt.nz/the-big-wastewater-story

Approximate Project Two Cost

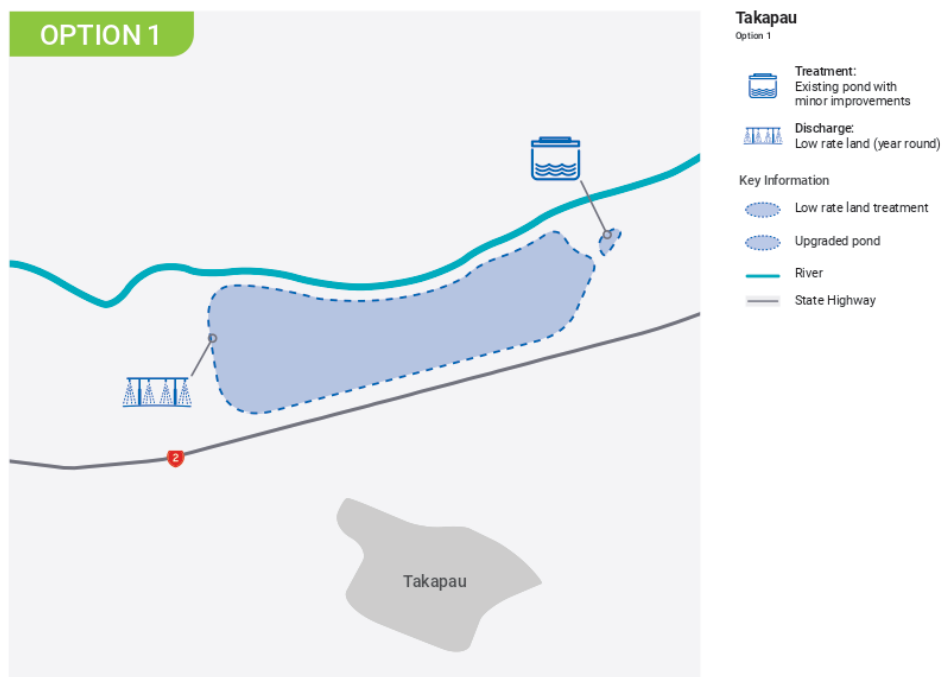
The costs go through a refining process as the design progresses.

We are currently at a very early pre-concept design phase, and expect the costs to be in the vicinity of \$15m if all three stages as outlined in option 3 are implemented.

PROJECT THREE | Re-consenting, then upgrades to the Takapau wastewater system

The Takapau Wastewater Treatment Plant has a consent expiring in October 2021.

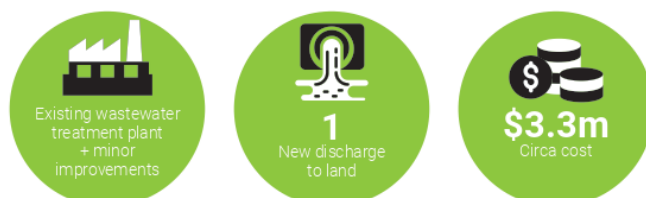
The plant performs to reasonable standard however requires some improvements. It has a basic oxidation pond treatment and currently discharges to the Makaretu River via a wetland, however Council has heard from the community that there is an appetite to explore a land-based discharge system.



- Undertake minor upgrades to the current wastewater treatment plant.
- Establish new land site and add value through treating land with wastewater (e.g can grow something, or irrigate)
- Add storage and cease river discharge

Benefits

- Cease river discharge
- New land discharge with the ability to potentially have some form of reuse
- Improved treatment levels




Re-consenting, then upgrades to the Takapau wastewater system


OPTION 2




Takapau

Option 2


 **Treatment:**
Existing pond with minor improvements

 **Discharge:**
High rate dispersal

 **Discharge:**
Low rate land treatment

Key Information

 High rate dispersal

 Low rate land treatment

 River

 State Highway

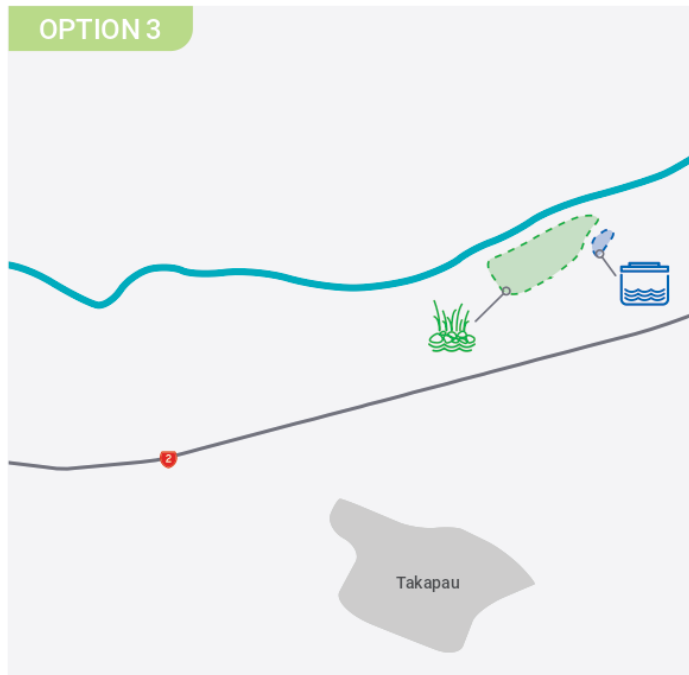
- Undertake minor upgrades to the current wastewater treatment plant.
- Continue to discharge to the river in wet high flows
- Discharge to land in the dry

Benefits

- New land discharge
- Improved treatment levels





OPTION 3



Takapau

Option 3

 **Treatment:**
Existing pond with minor improvements

 **Discharge:**
High rate dispersal

Key Information

 High rate dispersal

 River

 State Highway

- Undertake minor upgrades to the current wastewater treatment plant
- Discharge to a land based discharge system
- Cease discharge to the river

Benefits

- Cease river discharge
- New land discharge via high rate disposal
- Improved treatment levels



Approximate Project Three Cost

The costs go through a refining process as the design progresses. We are currently at a very early pre-concept design phase, and expect the costs to be in the vicinity of \$2-3m dependent on the option implemented.

FAQ'S

Q. What is the project?

A. The project is made up of a series of projects across the six towns that will see the upgrade of treatment processes and ultimately move to discharges away from rivers to meet current and future resource consent conditions and environmental parameters. This is consistent with the feedback we have received from the community and iwi to move away from discharge directly into our rivers.

Q. How can I get involved in these projects?

A. We welcome your input through this pre-engagement phase, alternatively if you wish to contact one of the team – please call council on 06 857 8060 at any time – we would love to hear from you. Otherwise, there will be an opportunity for formal engagement in early 2021.

Q. What is the anticipated cost for these projects?

A. The costs will go through a refining process as the options and designs progress. We are currently at preliminary or concept design phases and expect the costs to be in the vicinity of \$66-70m for the entire programme.

Q. What is the anticipated cost impact on ratepayers for these projects?

A. Early modelling of rates impacts, has given us the following insights across our approx. 3500 connected ratepayers using an interest rate of 2.5%;

- A \$66m loan across 3500 ratepayers for 20 years has an impact of \$1,199
- A \$66m loan across 3500 ratepayers for 30 years has an impact of \$894
- A \$66m loan across 3500 ratepayers for 35 years has an impact of \$808

These impacts are for the loan repayments if the loans were drawn down in full in Year 1 of the LTP; by phasing the work programme and subsequent loan drawdowns, the annual impact will be phased - further detail is available on our website.

Q. How does Council anticipate to fund these projects?

A. At worst case, Council would need to loan fund the projects, and repay the debt through the collection of rates over a set period of time. Council is investigating other funding sources – these could be 'internally' through our industry trade waste partners or development contributions, Or 'externally' through funding opportunities or grants, like Central Government. This is a long conversation, and council is working on minimising the impact to ratepayers as much as possible.

Q. What is the anticipated timing for these increases to start impacting my rates bill and will these be the immediate increases or will they be phased in as the projects progress?

A. The projects will be delivered over time, and as funds become available. Some parts have started, and we expect the programme to be delivered in a staged manner to balance affordability.

Q. When will we know what option Council is progressing forward with?

A. We'll be keeping you updated throughout this project. We will give you an indication of which option the public favoured through the engagement process, and this will be presented to councillors to endorse as part of the Long Term Plan adoption in mid 2021. We will also keep you informed

of progress with the resource consent applications. Keep an eye out for community meetings - where you can talk with the project team and provide feedback.

Q. How does a land discharge site work?

A. Land discharge systems provide the ability for water to be spread over an area to infiltrate into the soil. As the water passes through the soil water can be retained and taken up by plants, nutrients can be filtered out and stored in the soils for plants to use, and pathogens can be filtered out. The effectiveness of the system is dependent on:

- the volume and how much is applied,
- the type of soil and whether it is a gravely riverbed or loamy soil,
- how wet the soil is, and
- what is growing on the site.

Q. What's the timelines for these projects?

Project one: Waipukurau, Waipawa and Otane

We propose a staged approach to minimise the direct impact on ratepayers. The staging is proposed as follows;

Stage 1 (2021-2024) – Build a pipeline to convey Otane waste to Waipawa WWTP, Build a pipeline to convey treated waste from Waipawa WWTP to Walker Road, Build and commission Walker Road land discharge scheme to discharge waste for Otane and Waipawa town volumes.

Stage 2 (2024-2027) – Build a new mechanical (likely Biological Nutrient Removal) treatment plant to treat the wastewater from Otane and Waipawa before it is conveyed to Walker Road for discharge, AND

- (a) Build a conveyance pipeline from Waipukurau to Waipawa to transfer wastewater to Waipawa's new treatment plant for treatment and then convey treated effluent to Walker Road for discharge. This will require an increase in size and capacity of the BNR plant and Walker Road land discharge scheme; OR;
- (b) Build a second / new BNR treatment at Waipukurau to treat the waste from Waipukurau before conveying to a land based discharge scheme – this would require building a new land based discharge scheme in Waipukurau (likely around Ford Road)

Stage 3 (2027-2030) – Investigate land re-use opportunities – like creating electricity, or using the treated wastewater for land treatment.

Project two: Porangahau and Te Paerahi

We anticipate to lodge a new consent for both sites by Nov/Dec 2020, and expect that we will have secured funding for the project to commence in July 2021. Dependant on the amount of funding secured the project is planned to be staged.

Project three: Takapau

We expect to lodge a consent in early 2021, confirming the option to progress with and secure funding to support the project through the long term plan 2021. We expect to finalise design between July and Dec 2021. We would then expect to implement the solution during 2022.

For further details of what staging could look like for each project, please visit www.chbdc.govt.nz/the-big-wastewater-story and follow the prompts.

All feedback will be available to the public.

Have your say!

Feedback closes at midnight 23 Aug 2020.

#the BIG Waste Water Story

Tell us what your preferred option to manage wastewater is?

To have your say, complete the attached survey and return to Central Hawke's Bay District Council by post or in person to, PO Box 127, 28-32 Ruataniwha Street, Waipawa 4240. You can also drop your form to the Waipawa Library, or Waipukurau Pop-up Service Centre.

For further information including technical information, maps, and FAQs, or to provide your feedback online, head to www.chbdc.govt.nz/the-big-wastewater-story.

If you would like to expand on your answers, please include additional pages.

Name

Address

Email address

Where do you live?

Do you own a home in Central Hawke's Bay? Yes / No (please circle)

Are you a business owner in Central Hawke's Bay? Yes / No (please circle)

What age range are you in? ☐ Under 18 ☐ 18 - 30 ☐ 31 - 40 ☐ 41 - 50 ☐ 51 - 60 ☐ 61+
Please tick

Do you identify as tangata whenua in Central Hawke's Bay? Yes / No (please circle)

If yes, please identify your iwi:



Please number the options in order of your preference (1 being your most preferred option):

PROJECT ONE: Re-consenting, then upgrades to the Waipukurau/Waipawa/Otane wastewater systems

☐ Option 1 ☐ Option 2 ☐ Option 3

Which options do you prefer and why?

What don't you like about the other options?

What matters most to you? (eg financial impact, good environmental outcomes etc)

PROJECT TWO: Re-consenting, then upgrades to the Porangahau and Te Paerahi wastewater systems

☐ Option 1 / Stage 1 ☐ Option 2 / Stage 2 ☐ Option 3 / Stage 3

Which options do you prefer and why?

What don't you like about the other options?

What matters most to you? (eg financial impact, good environmental outcomes etc)

PROJECT THREE: Re-consenting, then upgrades to the Takapau wastewater system

☐ Option 1 ☐ Option 2 ☐ Option 3

Which options do you prefer and why?

What don't you like about the other options?

What matters most to you? (eg financial impact, good environmental outcomes etc)

Is there anything else you'd like to tell us?

Thank you for providing your feedback.

5.6 KEY PROJECT STATUS REPORT - BIGWATERSTORY

File Number: COU1-1410

Author: Darren de Klerk, 3 Waters Programme Manager

Authoriser: Monique Davidson, Chief Executive

Attachments: 1. Key Project Status Report #8 - BigWaterStory [↓](#)

Key Project Status Report for #thebigwaterstory

PURPOSE

Following the conception of #thebigwaterstory, Council set about implementing the programme. A programme manager was appointed and focus given to defining the projects that form the programme in greater detail.

The purpose of this key project status report serves as an opportunity to formally report to elected members on the progress of each of the projects and their expected delivery against time, scope, budget and quality standards against the larger programme objectives.

RECOMMENDATION

That, having considered all matters raised in the report, the report be noted.

SIGNIFICANCE AND ENGAGEMENT

This report is provided for information purposes only and has been assessed as not significant.

BACKGROUND

As part of Project Thrive, the importance of water to our community was one of the loudest messages. This, combined with a vision for growth and prosperity, environmental responsibilities, as well as strong and durable infrastructure, is how #thebigwaterstory began.

To deliver the improvements required, Council has developed a programme of upgrades and improvements to ensure that the drinking water, wastewater and stormwater infrastructure is able to meet the current and future needs of the community.

Following Project Thrive, creation of The Big Water Story brand, and adoption of the LTP in 2018, attention and focus have shifted from discussion and consultation to planning and delivery. Projects must be sequenced and prioritised based on several factors. This holistic approach to managing several interrelated projects to achieve a single promised outcome is referred to as Programme Management.

DISCUSSION

A quarterly report to summarise the activity across #thebigwaterstory – further content within the attached.

IMPLICATIONS ASSESSMENT

This report confirms that the matter concerned has no particular implications and has been dealt with in accordance with the Local Government Act 2002. Specifically:

- Council staff have delegated authority for any decisions made;
- Council staff have identified and assessed all reasonably practicable options for addressing the matter and considered the views and preferences of any interested or affected persons (including Māori), in proportion to the significance of the matter;

- Any decisions made will help meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses;
- Unless stated above, any decisions made can be addressed through current funding under the Long-Term Plan and Annual Plan;
- Any decisions made are consistent with the Council's plans and policies; and
- No decisions have been made that would alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or would transfer the ownership or control of a strategic asset to or from the Council.

NEXT STEPS

Continue to implement the programme, seek funding opportunities and deliver on community and stakeholder ambitions.

RECOMMENDATION

That, having considered all matters raised in the report, the report be noted.



Key Project Status Report #8



PROJECT NAME	#theBigWaterStory Key Project Status Report		
Release Date	08/10/2020	Report #	8
Key Benefits	<p>The benefits of the Big Water Story were communicated to the residents of CHB through workshops and through the LTP process. The key benefits were to:</p> <ul style="list-style-type: none"> • Upgrade infrastructure so that it will last longer and we can maintain the service you have always relied on • Meet changing legislative and compliance requirements relevant to 3 waters assets • Build resilience in our waters infrastructure by having second supplies, firefighting capacity and right sized reticulation systems • Take on the learnings from the Havelock North water inquiry • Ensure we are providing for smart growth in the District including the rapidly growing number of new homes being built in our residential areas and forecast over the next 10 years • Supply those who are connected to Drinking Water with a safe, clean and reliable drinking water source in particular those smaller communities • Deal with wastewater and stormwater to ensure minimal impact on our rivers • Ensure we do not burden future generations with aging infrastructure 		
Project Delivery Objectives	<p>To deliver the capital projects in the allocated year/s that together form the Big Water Story to budget and quality whilst ensuring maximum community benefit from these projects.</p> <p>Communicate to the community on the programme and the progress of each project.</p> <p>Provide input through the design and improvement projects to future infrastructure works and asset management plans, to inform where future expenditure and improvements are targeted for the betterment of infrastructure in the district.</p>		



Key Project Status Report #8



**CENTRAL
HAWKE'S BAY**
DISTRICT COUNCIL

Report/ Document History

Report No.	Report Date	Report Frequency	Project Sponsor	Project Manager
1	28/07/2018	Bi-Monthly	Josh Lloyd	Josh Lloyd - Interim
2	27/08/2018	Bi-Monthly	Josh Lloyd	Darren de Klerk
3	16/11/2018	Bi-Monthly	Josh Lloyd	Darren de Klerk
4	01/02/2019	Bi-Monthly	Josh Lloyd	Darren de Klerk
5	15/08/2019	Bi-Monthly	Josh Lloyd	Darren de Klerk
6	14/02/2020	Bi-Monthly	Josh Lloyd	Darren de Klerk
7	05/06/2020	Quarterly	Josh Lloyd	Darren de Klerk
8	08/10/2020	Quarterly	Josh Lloyd	Darren de Klerk

Sponsor's Project Delivery Confidence Assessment

 Appears Highly Likely	 Appears Probable	 Appears Feasible	 Appears In Doubt	 Appears Unachievable
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Key Project Status Report #8



INTRODUCTION

This report will provide regular information on the fixed objectives and dynamic progress and risks of the Big Water Story.

The report provides an introduction as well as background and contextual information on the Big Water Story and then becomes more detailed discussing programme and project progress and risk.

BACKGROUND

As part of Project Thrive, the importance of water to our community was one of the loudest messages. This, combined with a vision for growth and prosperity, environmental responsibilities, as well as strong and durable infrastructure is how **#thebigwaterstory** began.

To deliver the improvements required, Council has developed a programme of upgrades and improvements to ensure that the drinking water, wastewater and stormwater infrastructure is able to meet the current and future needs of the community.

Following project THRIVE, creation of The Big Water Story brand, and adoption of the LTP in 2018, attention and focus have shifted from discussion and consultation to planning and delivery. Projects must be sequenced and prioritised based on several factors. This holistic approach to managing several interrelated projects to achieve a single promised outcome is referred to as Programme Management.

OBJECTIVE

Following the conception of **#thebigwaterstory**, Council set about implementing the programme, a programme manager was appointed and focus given to defining the projects that form the programme in greater detail.

This key project status report serves as an opportunity to formally report to elected members on the progress of each of the projects and their expected delivery against time, scope, budget and quality standards.

1. Overall Confidence Assessment

Programme Manager's Status Summary				
Key Questions Impacting on Project Objectives		No	Yes	Explanation & Proposed Resolution to Problem
1	Are there <u>Business Case Benefit</u> attainment problems?	✓	<input type="checkbox"/>	The business case is self-supporting and based on relatively simple science. The assets are proven to require replacement, upgrade or augmentation. By delivering the specified projects, the asset constraints will be mitigated and business case benefits realised.
2	Are there <u>Scope Control</u> problems?	✓	<input type="checkbox"/>	The scope of the Big Water Story is defined with listed projects. The scope will be better defined as each project progresses through design phases.
3	Will Target <u>Dates</u> be missed?	<input type="checkbox"/>	✓	There is greater confidence most projects will be delivered within timeframes, Waipukurau second supply is unlikely to be completed within the original two-year timeframe. This has been re-forecast to 30 June 2022, and will be re-evaluated as it progresses through its planning lifecycle.
4	Will <u>Project Costs</u> be overrun?	<input type="checkbox"/>	✓	Confidence has been given on majority of the listed projects, some risk still lies within the wastewater projects, these will be managed case by case as the scope is better understood. The SH2 borefield project



Key Project Status Report #8



				has been highlighted and is likely to exceed original budget, but will be managed in the wider project/ programme budgets.
5	Are there Quality problems?	✓	<input type="checkbox"/>	The risk of poor quality outcomes (e.g. poorly constructed projects) is considered low. The quality of physical works is considered a non-negotiable and is managed through routine project management processes.
6	Are there Resource problems?	✓	<input type="checkbox"/>	As the programme has progressed this resourcing risk has been well managed internally, and through engaging a diverse external market to deliver physical and design services.
7	Are there Risk Management problems?	✓	<input type="checkbox"/>	No significant risk management problems perceived at present, risks will be identified below and managed as per project management practices. Safety in design workshops held for each project.
8	Are there Review and Approval problems?	✓	<input type="checkbox"/>	Governance and internal management structures for the review and approval of project and programme outcomes are sufficient to meet the requirements of the Big Water Story. Robust gateways in place, in particular for procurements.
9	Are there Teamwork problems?	✓	<input type="checkbox"/>	The team are engaged and enthusiastic about the progress of the Big Water Story.
10	Are there Stakeholder problems?	✓	<input type="checkbox"/>	Key affected stakeholders will be communicated with and managed as per defined stakeholder management and communication plans for each project.
11	Are there Iwi issues?	✓	<input type="checkbox"/>	Impact on Iwi considered to be minimal with little impact on land or changes in use of infrastructure planned as part of Big Water Story. Greater engagement with Iwi is ongoing as we progress the wastewater projects.
12	Are there Communication problems?	✓	<input type="checkbox"/>	Communication Strategy for Big Water Story developed, website content regularly updated and templates developed for regular distribution on all projects in line with project specific communication and stakeholder plans.
13	Are there Change Management problems?	✓	<input type="checkbox"/>	Not at present, some change may be imminent in project scope - these will be managed through our design review, and approval process.
14	Are there Health & Safety issues?	✓	<input type="checkbox"/>	H&S management is another non-negotiable for the delivery of all Big Water Story projects. It is mandatory that robust H&S management plans and procedures are provided for each Big Water Story Project. This will develop further as construction progresses through with site specific Health and Safety Plans



Key Project Status Report #8



Project Manager's Progress Summary

Achievements/Activities since last status report

This is the eighth report on the programme, and the sixth report where some achievements can be recognised;

Project	Achievement	When
Waipukurau Second Water Supply	Common design items progressed, allocated funding in the 3 waters reform programme for Option 4 to be progressed	Ongoing
Waipawa Trunk Sewer Main Renewal	Works completed on the relining in early Jan 2020, working through power requirements to complete pump station works. Delays due to COVID-19, and landowner changing – expect completion by the end of Oct 2020	Stage 1 – Jan 2020 Stage 2 – Oct 2020
Otane Wastewater Pipeline	Works 90% completed on Stage 1 of the project	June 2020 – Oct 2020
WPK, WPA and Otane Wastewater Project	Engaged with community on project as part of pre-engagement, developed wastewater strategy	Jul/ Aug 2020
Otane Infiltration and Inflow	Study complete, findings collated and presented to F&I committee for discussion June 2020. Budget set aside for remedial works as wastewater renewals.	Sep 2020
Floating Wetlands	Trial methodology approved, contractor mobilising and working with surrounding landowners. Works started late Sep 2020	Sep 2020
Waipukurau Water SH2 Borefield Upgrade	Commissioning new system and setting up run to waste system	Sep – Nov 2020
Waipukurau Firefighting and Shortfalls project	Stages 1 and 2 complete, 80% of Stage 3 complete	Nov 2019 July 2020 – Oct 2020
Waipawa Firefighting	Stantec working on modelling and works programme	June 2020 to April 2021
Kairakau Water	Options investigated and presented to Committee, engagement to commence with landowners and mana whenua in early October.	June 2020

Issues/ Risks that have arisen since the last status report

This section will be expanded/ updated in subsequent quarterly Key Project Status Reports.

Project	Risk	Proposed Control
Waipukurau Second Water Supply	Failure of existing assets	Work commencing on mutually beneficial items now.



Key Project Status Report #8



**CENTRAL
HAWKE'S BAY**
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Waipukurau Second Water Supply	Meeting timeframes - Due to the amount of planning and cogs in the process, each activity takes time	Robust project plan and visibility on timeframes, thinking ahead and undertaking tasks simultaneously with another that adds value.
SH2 Borefield Upgrade	Budget risk	Bore assessment, robust planning and equipment planning, use of other projects.
Wastewater Projects	Risk highlighted with budget for Takapau, Porangahau and Te-Paerahi	To be managed case by case, and largely driven by outcome of scope. Robust community session to understand drivers
Waipawa Trunk Sewer Main Renewal	Power to site and working with landowners	Robust stakeholder plan and engagement process followed. Ongoing management and risk mitigation required

Key Activities to be started/completed or in progress over the next 2-3 months

Project/ Item	Action/ Activity	Forecast Completion
Waipawa Trunk Sewer Main Renewal	Complete power upgrades	October 2020
Waipukurau Second Supply	Identify preferred option and progress	October 2020
Waipukurau and Waipawa WW I&I	Review historic I&I and make plan to reduce and improve network	Ongoing
Wastewater Improvements	Sludge work underway, leachate removal, minor improvements, UV etc...	Ongoing
Takapau, Porangahau and Te-Paerahi WW Upgrades	As per comms project plan, we are across the main milestones required to deliver these upgrades.	Dec 2020 – Te Paerahi and Porangahau March 2021 - Takapau
Otane, Waipukurau and Waipawa	Preparation for the LTP 2021. Concept design completed - June 2020. Part of WW comms plan.	July 2020
Otane WW Pipeline—Stage 1 and 2	Completion of Stage 1 Commencement of Stage 2	Oct 2020 Nov 2020
SH2 Borefield	Commissioning and completion of project	Nov 2020
Kairakau Water	Community engagement and preferred option design to be progressed	Dec 2020

#theBigWaterStory Key Project Status Report

Issue Date: 08 October 2020

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Key Project Status Report #8



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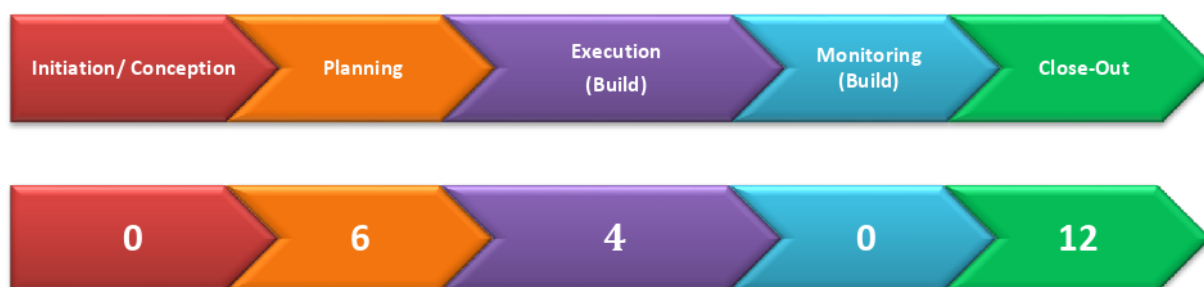
General Comments

As outlined in the previous key project status report, the momentum shifted to construction, but in the last 9 months, we have seen a number of projects completed, and the number under construction reduce, a large focus turns to the large water project, and the six wastewater projects.

Design works has progressed well, and the team continue to juggle multiple projects and timelines/ deliverables for each. More increased focus on wastewater as we prepare for LTP engagement.

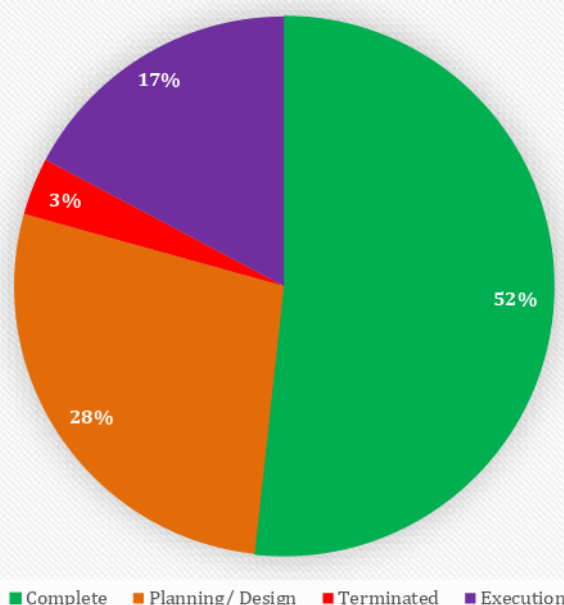
Significant focus has again turned to planning and funding applications – we expect 2021 to be busy with construction again to meet 3 waters reform targets.

By Project Status Update



Overview of the 3-year programme to Sep 2021

Status of #thebigwaterstory projects September 2020





Key Project Status Report #8



**CENTRAL
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Asset Type	Project Description	Status
Drinking Water	Waipukurau - Mackie, Mclean, Mt View	Complete
Drinking Water	Takapau Water treatment improvement	Complete
Drinking Water	Porritt Place Water Renewal	Complete
Drinking Water	Waipukurau Firefighting and Improvements (Stage 1 and 2)	Complete
Drinking Water	Porangahau water treatment improvement	Complete
Drinking Water	Otane Land Development (Water)	Complete
Drinking Water	Otane Alternative Water supply	Complete
Drinking Water	Kairakau water system upgrade	Planning/ Design
Drinking Water	Waipawa Firefighting and Improvements	Planning/ Design
Drinking Water	Waipukurau Second water supply	Planning/ Design
Drinking Water	Waipukurau Water SH2 Bore Upgrade	Execution
Drinking Water	Waipukurau Firefighting and Improvements (Stage 3)	Execution
Stormwater	Rathbone to Bush Drain extension	Complete
Stormwater	SW Helicoil Upgrades – Tavistock/ Francis Drake	Complete
Stormwater	Waipukurau CBD Stormwater - Churchill / Woburn	Complete
Stormwater	Waipukurau CBD Stormwater improvements	Planning/ Design
Stormwater	SW Helicoil Upgrades – Tutaneke / Tavistock	Execution
Wastewater	Takapau Resource Consent Extension	Complete
Wastewater	Otane wastewater I&I Study	Complete
Wastewater	Otane wastewater Resource Consent Extension	Complete
Wastewater	Waipawa trunk sewer main renewal (stage 1 - reline)	Complete
Wastewater	Otane Land Development (Wastewater)	Complete
Wastewater	WPK WPA Wastewater Treatment Investigation	Planning/ Design
Wastewater	CHB District Wastewater Renewals	Planning/ Design
Wastewater	Porangahau/ Te Paerahi Wastewater Upgrade	Planning/ Design
Wastewater	Takapau Wastewater Upgrade	Planning/ Design
Wastewater	Otane wastewater treatment upgrade	Terminated
Wastewater	Otane to Waipawa Pipeline – Stage 1	Execution
Wastewater	Waipawa trunk sewer main renewal (stage 2 - pumps/power)	Execution

Programme Financial Update

Financial management of Big Water Story projects requires creation internally of a project specific ID for each project. This allows for management of costs and understanding of progress against budget – further detail available on request

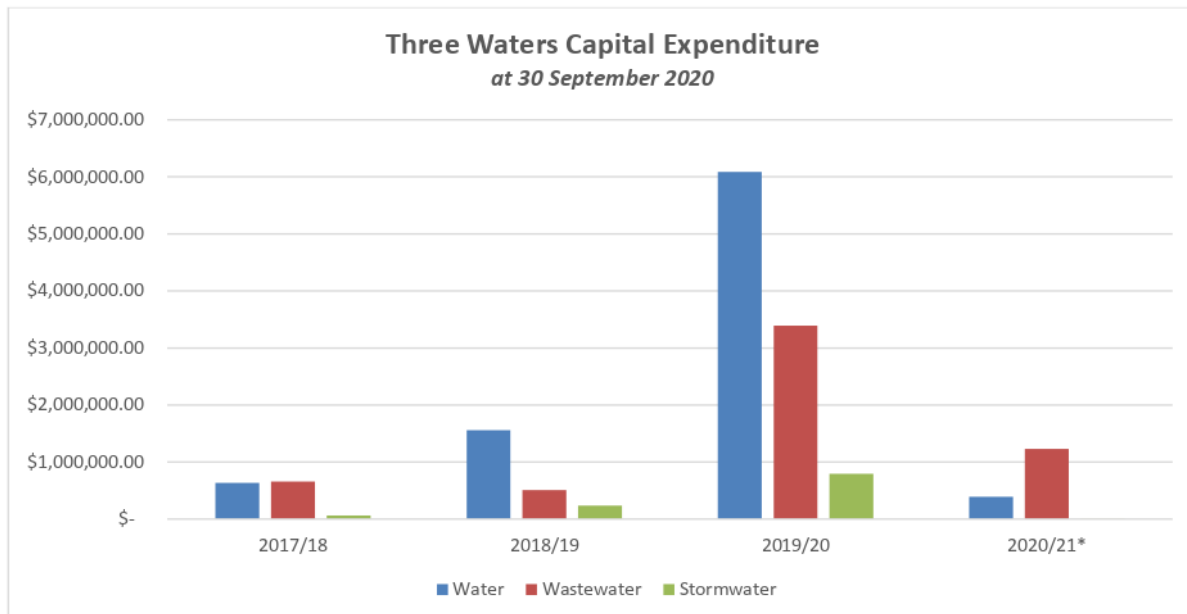
Programme Statistics	Expenditure	
	Whole Life (\$) 10 year	Current Year (\$) 2020/21
Approved Project Budget (Baseline)	37,966,321	14,135,509
Actual Spent to Date (as at 30/09/2020)	15,549,619	1,623,603
% Spend against budget (as at 30/09/2020)	429%	12%
Estimate to Complete Reminder of FY20/21	-	-



Key Project Status Report #8



Type	2017/18	2018/19	2019/20	2020/21*
Water	\$ 636,276.00	\$1,557,628.00	\$ 6,085,116.00	\$ 391,304.00
Wastewater	\$ 658,499.00	\$ 506,795.00	\$ 3,389,709.00	\$1,231,555.00
Stormwater	\$ 64,106.47	\$ 235,518.00	\$ 792,369.00	\$ 744.00
TOTAL	\$1,358,881.47	\$2,299,941.00	\$10,267,194.00	\$1,623,603.00



Key Project Statistics	Budget	Expenditure	Variance (Remaining)	Project Status
	Whole Life (\$)	30 Sep 2020		
Otane Alternative Water supply	\$2,399,533	2,375,547	23,986	Complete
Waipukurau Second water supply	\$5,642,918	491,682	5,151,236	Ongoing
WPK WPA Wastewater Treatment Investigation	\$2,121,267	1,765,049	356,216	Ongoing
Waipawa trunk sewer main renewal	\$1,769,790	1,604,431	178,440	Ongoing
Waipukurau Water SH2 Bore Upgrade	\$1,037,943*	1,329,612	-291,669	Ongoing

*Budget to be increased through other project surplus'

Project Delivery Confidence Assessment Key

Overall confidence remains high, with attention required constant by the programme team to deliver on outcomes. There remains potential for issues/ risks to arise and some delays may be probable. Risks will be addressed through the project, and monitored through the project lifecycle.

The wastewater programme of projects have been split out to their own Key Project Status Report.



Key Project Status Report #8



**CENTRAL
HAWKE'S BAY**
DISTRICT COUNCIL

Key	Attention Required	Issues/Risks	Delivery
	Minimal	None	On Time
	Constant	Potential	Delays Probable
	Manage	Exist but resolvable	Delays Likely
	Urgent	Major	Delays
	Critical	Critical	Major delays. Re-scope/Re-assess

Project Photos

Below are photos of #thebigwaterstory projects in action.

Photo can also found on the council website: <https://www.chbdc.govt.nz/our-district/projects/>

SH2 Borefield upgrade





Key Project Status Report #8



#theBigWaterStory Key Project Status Report

Issue Date: 08 October 2020

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Key Project Status Report #8

CENTRAL
HAWKE'S BAY
DISTRICT COUNCIL

Waipukurau Firefighting Stage 3



5.7 WAIPUKURAU SECOND WATER SUPPLY - PREFERRED OPTION RECOMMENDATION

File Number: COU1-1410

Author: Darren de Klerk, 3 Waters Programme Manager

Authoriser: Monique Davidson, Chief Executive

Attachments: 1. [Waipukurau Water Supply - Updated Memo](#) [↓](#)
2. [Waipukurau Water Supply - Supporting Deliver Plan](#) [↓](#)

PURPOSE

The matter for consideration by the Committee is to endorse and approve project officers to proceed with Option Four as outlined in earlier updates given to this Committee on the Waipukurau Second Water Supply project in June 2020 and at an earlier workshop in April 2020.

RECOMMENDATION FOR CONSIDERATION

That having considered all matters raised in the report:

- a) **That the Finance and Infrastructure Committee endorse officers to proceed with Option Four to design and construct the Waipawa / Waipukurau Link.**

EXECUTIVE SUMMARY

The project team have identified Option Four as best meeting the project requirements although with a budget needed of \$11.3m – Council plans to fund the budget in excess of our LTP allowance of \$5.7m through the 3 waters reform programme, and has set aside \$3.3m in tranche One to be started by March 2021 and completed by March 2022.

This option is a generational option for the district and add significant source resilience while meeting the project objectives of additional storage and improved resilience to the security of supply.

Council officers submitted the funding and delivery plan to the DIA on the 29th September to secure the Tranche One funding and commit council to allocating \$3.3m to this project.

BACKGROUND

In 2016, CHBDC engaged Opus International Consultants to construct a hydraulic model of the water supply. The model identified several issues with Waipukurau's water supply:

- A lack of strategic storage
- Risks to security of supply if there are issues with the existing source, reservoir or trunk main
- Constraints to servicing planned future growth and infill
- Areas of insufficient fire flow.

Council added a significant project as part of the Long Term Plan 2018 to implement a second water supply to the town of Waipukurau (budget of **\$5.7m**), since 2018 officers have developed and investigated options. Initially aimed at a new source with treatment and storage on the northern side of Waipukurau. Unfortunately, the investigatory bores did not yield the quantities of water required to justify progressing through to production.

Through these findings, Council has taken the opportunity to re-evaluate the best option to proceed for a second supply – taking the project back to its origins, to understand the drivers and setting criteria to evaluate potential options against.

Through this process – Council officers have identified a number of key options and these were workshopped with the Committee in April 2020.

Two options were discussed at the committee, **Option Two** which utilised the existing Borefield on SH2 and took advantage of its current upgrade and built on its treatment plant, but then conveyed treated water to a new storage tank closer to Waipukurau was presented – this option 2 was in alignment with the budget set in the 2018 Long Term Plan and would be able to meet a number of the criteria set apart from the ability to have an independent source. The risk of source failure or contamination was evaluated as low, but present.

Option 4 was also presented and this Option met all the criteria set, but exceeded the 2018 Long Term Plan budget, this option supplied water to Waipukurau from the Waipawa River and if developed would require Council to develop and expand the Waipawa Borefield. Allowing two independent sources to supply Waipukurau, storage would be located between the towns, and would house treatment either at the source or at the reservoir. This option also allowed future growth capacity for Waipukurau to feed back into Waipawa and effectively link the towns – safeguarding the water supply in the event of failure to supply or an asset.

As mentioned, this option exceeded the budget available, but, in April 2020 – Council as part of the regional application to Crown Infrastructure Partners, applied for funding to assist the preferred option be feasible and ultimately, align with our THRIVE values of **generational thinking** and **durable infrastructure** allowing for **smart growth**.

The guidance received during the options workshop was to pause the project awaiting the outcome of the funding application, and if the application was successful to look to recommend and proceed with Option 4, but if we were unsuccessful to revert to our set budget, and recommend to proceed with Option 2. Council anticipated it would have heard of an outcome by mid 2020.

Council were successful in securing \$11.09m of funding through Tranche One of the 3 Waters Reform Programme – of this funding, Council has proposed to set aside \$3.3m from tranche One to this project. This will increase the project budget to \$9m, Council is anticipating additional funding in Year 2 or 3 of the reform to make up the remaining funding required to complete Option Four.

DISCUSSION

The budget set in the Long Term Plan in 2018 for this project was \$5.7m over FY18/19 and FY19/20 – this has been deferred due to the re-calibration of this project.

Officers reset the project in 2019 and re-developed options, these options were presented to this committee in April 2020 during a workshop.

Officers presented **Option 2** as the preferred option if Council were to work within the budget set as part of the LTP 2018, if Council were successful with Crown Infrastructure Funding or other funding, officers would proceed with **Option 4** to link Waipawa and Waipukurau and add additional storage at the mid-way mark between the towns. Whilst continuing with improvements to the current mains, treatment and storage to add resilience.

The updated expected costs for the options presented are outlined within the attached memo.

Since the original work was completed, there have been some further developments which impact the options assessment. The purpose of this memo is to summarise these and update the options.

- Structural assessments have been completed by WSP for the existing Pukeora and Hunter Park reservoirs. These concluded that these structures provide about 15% of the current standard for new buildings. As this is less than 34%, it triggers a legal obligation for these structures to be upgraded or replaced within seven years. It is considered that they will be uneconomic to strengthen, and that replacement would be required.
- A potential site for a new town reservoir that was relatively elevated has now become unavailable.
- Some turbidity issues during pump startup have occurred at the recently upgraded SH72 borefield, and there is also potential for elevated turbidity when the river is dirty. This raises the prospect of treating water at the borefield, or installing a run-to-waste system at the borefield, and a filtration system at the existing treatment plant.

- CHBDC is proposing to allocate some of the government's Tranche 1&2 stimulus to the project, increasing the project budget from \$5.7M to approximately \$11.5M. CHBDC needs to be in a position to begin spending the \$3.3M Tranche 1 allocation by March 2021.

Continue to develop the sustainable water demand management plan. This plan is a long term action plan to improve sustainable water use. The plan will drive the actions the capital and operations team will make in the future and how we as Council sustainably manage and reduce water loss and use

RISK ASSESSMENT AND MITIGATION

The progress of this option and the project is vital to ensure the risk of infrastructure failure is mitigated. Examples of recent concerns are highlighted below;

- Reservoirs failing structural assessments (largely due to age)
- Borefield concerns with producing water

System resilience concerns also highlighted below;

- One pipe from Borefield to reservoir/ treatment plant that is AC
- One pipe into Waipukurau town from treatment plant that is mostly AC
- One Borefield and water source
- Limited storage (approx. 8 hours) and excessive water turnover

FOUR WELLBEINGS

The project is at the heart of the four wellbeings and will see all of the wellbeings recognised through this project.

DELEGATIONS OR AUTHORITY

The finance and infrastructure committee is approving the option to proceed with, which is proposed to be funded within existing LTP budgets and through additional grant funding. With no impact to the ratepayer in addition to current rates, but officers recognise the significance of the project to the communities, and therefore request council oversight and approval to proceed.

SIGNIFICANCE AND ENGAGEMENT

In accordance with the Council's Significance and Engagement Policy, this matter has been assessed as of some significance.

OPTIONS ANALYSIS

Option One to approve proceeding with Option Four to design and construct the Waipawa/ Waipukurau Link

Option Two to approve proceeding with Option Two to add additional town storage and replace the vulnerable mains

Option Three to reject the project options to proceed and provide further guidance.

	<u>Option 1</u>	<u>Option 2</u>	<u>Option 3</u>
	To approve proceeding with Option Four to design and construct the Waipawa/ Waipukurau Link.	To approve proceeding with Option Two to add additional town storage and replace the vulnerable mains.	To reject the project options to proceed and provide further guidance.
Financial and Operational Implications	Requires Tranche One and Two funding to successfully complete, uses existing LTP budgets	Within existing LTP budgets	Some uncertainty that added value will be found in other options – delays and added pressure to operational requirements not implementing a solution
Long Term Plan and Annual Plan Implications	Within existing LTP	Within existing LTP	Does not align with existing LTP
Promotion or Achievement of Community Outcomes	Greater achievement of community outcomes – durable generational solution	Achieves community outcomes	Does not achieve community outcomes
Statutory Requirements	Not applicable	Not applicable	Not applicable
Consistency with Policies and Plans	Aligns with plans and achieves significant strides in meeting long term water outcomes.	Aligns with plans but to a lesser extent	Delays ability to delay on plans.

Recommended Option

This report recommends **Option One** - To approve proceeding with Option Four to design and construct the Waipawa / Waipukurau Link for addressing the matter.

NEXT STEPS

Officers will work to finalise the grant funding with the DIA and CIP, and will progress the design of option four as outlined within the memo and delivery plans.

Continue to develop the sustainable water demand management plan. This plan is a long term action plan to improve sustainable water use. The plan will drive the actions the capital and operations team will make in the future and how we as Council sustainably manage and reduce water loss and use.

RECOMMENDATION

- a) That the Finance and Infrastructure Committee endorse officers to proceed with Option Four to design and construct the Waipawa / Waipukurau Link.



Memorandum

To	Darren de Klerk
Copy	Dave Gardiner, Stephanie Glenn
From	Greg Birdling
Office	Christchurch
Date	17 September 2020
File	3-C2089.01
Subject	Waipukurau Water Supply – Option Update – Revision 2

1 Introduction

The Central Hawkes Bay District Council (CHBDC) has embarked on a project to improve the water supply to Waipukurau township. WSP have completed an assessment of the Options which is reported in the *Waipukurau Water Supply - MCA Assessment and Preferred Option* report (7 April 2020).

Since this work was completed, there have been some further developments which impact the options assessment. The purpose of this memo is to summarise these and update the options.

The developments that may affect the option selection include:

- Structural assessments have been completed by WSP for the existing Pukeora and Hunter Park reservoirs. These concluded that these structures provide about 15% of the current standard for new buildings. As this is less than 34%, it triggers a legal obligation for these structures to be upgraded or replaced within seven years. It is considered that they will be uneconomic to strengthen, and that replacement would be required.
- A potential site for a new town reservoir that was relatively elevated has now become unavailable.
- Some turbidity issues during pump startup have occurred at the recently upgraded SH72 borefield, and there is also potential for elevated turbidity when the river is dirty. This raises the prospect of treating water at the borefield, or installing a run-to-waste system at the borefield, and a filtration system at the existing treatment plant.
- CHBDC is proposing to allocate some of the government's Tranche 1&2 stimulus to the project, increasing the project budget from \$5.7M to approximately \$11.5M. CHBDC needs to be in a position to begin spending the \$3.3M Tranche 1 allocation by March 2021.

This memo updates Options 1, 2 & 4 originally assessed in the MCA to reflect the changes noted above and presents an updated MCA table, with a view to confirming the option to be taken forward. We note CHBDC has strong preference for Option 4.

2 Discussion

The outcome of the structural assessments commits CHBDC to strengthening or replacing the reservoirs within seven years. WSP recommended replacing both reservoirs, rather than attempting to strengthen them due to cost and operational considerations. Both are on constrained sites which makes it difficult or impossible to construct a new reservoir whilst keeping the old one in service. In addition, an increase in the town storage is desired to provide a total of about 6 ML subject to further assessment based on demand and growth considerations (presently 3.6 ML).

Although elevated water storage is preferred, previous investigations have indicated that there are no convenient nearby sites. A low-level reservoir is much easier and less expensive to construct, and there are potential sites available. However, this will require booster pumping from the reservoir to service the town.

The turbidity issue is not well understood yet, but we understand there may be short-duration turbidity spikes following start-up of some bores, and for longer periods when the river is dirty. Our initial suggestion for managing turbidity is:

- Start-up: either a run to waste system or a raw water buffer tank, and
- Dirty river: on-demand cartridge filter at the WTP

CHBDC raised the potential to treat water at the SH72 borefield site where Council has surplus land available. In that case the cartridge filter would need to be at the borefield which makes direct pumping to the Pukeora Reservoir problematic as the pressure is too high for readily-available cartridge filter units. An alternative is to pump through to a new low-level reservoir in town, so the pressure would be low enough for treatment at the borefield. This would also reduce the amount of large trunk pipelines to be replaced to and from the Pukeora Reservoir (effectively in the opposite direction from town).

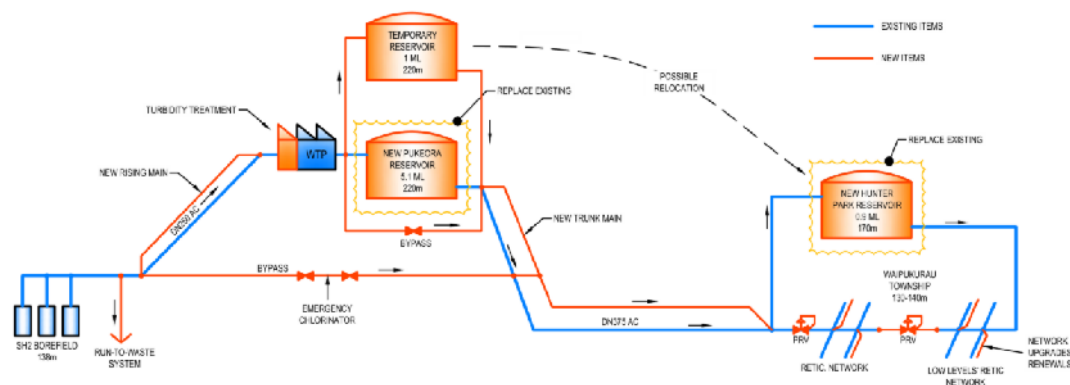
The primary drawback with a low-level storage reservoir is that service is lost if the pumps are unavailable (e.g. mechanical or electrical failures). A potential mitigation is to retain a reservoir at Hunter Park which will provide (reduced) service for a period of time to enable repairs to be effected.

3 Options

We have updated the upgrade options and schematics as below.

3.1 Option 1: Enhanced Status Quo

This option replaces the vulnerable trunk mains and existing reservoirs with a larger reservoir at Pukeora. The reticulation network is enhanced with the addition of PRVs to provide more consistent service levels and to provide a secondary low-level supply. An emergency bypass is provided to enable the SH2 borefield to supply directly in the event of a significant failure at the Pukeora WTP and reservoirs.



Schematic of Option 1

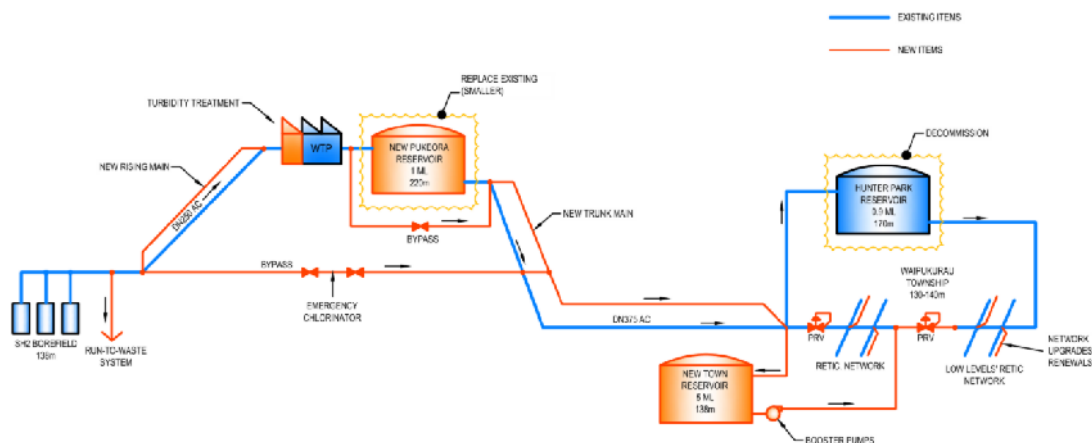
Notes about this option:

- This option is difficult to implement directly as there is a lack of room at Pukeora for the larger reservoir to be constructed prior to demolishing the existing reservoir.
- A large reservoir at this site is likely to be expensive as it may need to be square to fit the site if the existing WTP building is retained, and additional earthworks and possibly founding improvements would be required.
- A temporary reservoir could be constructed to enable demolition and construction of the new reservoir to occur. This might require temporary use of adjacent land. This reservoir could potentially be relocated to Hunter Park to provide a permanent replacement for that reservoir. This would require that the temporary reservoir was a steel structure or similar that is amenable to relocation.

3.2 Option 2A: Town Storage

This option also replaces the vulnerable trunk mains, enhances the network with PRVs to provide more consistent service levels and to provide a secondary low-level supply. It also provides the emergency bypass to enable the SH2 borefield to supply directly in the event of a significant failure at the Pukeora WTP and reservoirs.

A large reservoir and booster pumping station would be constructed in Waipukurau. This would enable the reservoir at Pukeora to be replaced with a smaller reservoir to provide elevated storage for the town. The treatment plant would remain at the Pukeora Site. Hunter Park Reservoir would be decommissioned.



Schematic of Option 2A

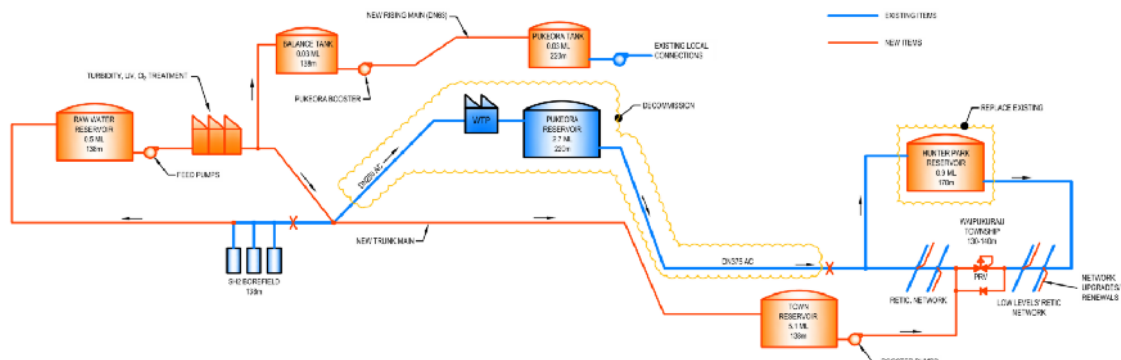
Notes about this option:

- The most promising site at present for the reservoir is off Takapau Rd where the existing trunk mains run through. This should provide for an economical reservoir design as the site is flat and accessible, and founding conditions likely to be good.
- There are several alignment options for the new main into town. Alignments through the aerodrome will increase its length and may have other restrictions. A more direct route along the state highway is potentially easier and cheaper.

3.3 Option 2B: Town Storage & Relocated Treatment

An alternative is to relocate the treatment plant to the borefield and largely withdraw from the Pukeora site. This provides greater scope to manage turbidity issues at the borefield, and would allow low-head transfer pumping into the new town storage reservoir where it would be boosted for town service. The Hunter Park reservoir would then be replaced to provide elevated storage for the town.

A small booster pump system would be provided to service the existing properties at the Pukeora reservoir site.



Schematic of Option 2B

Notes about this option:

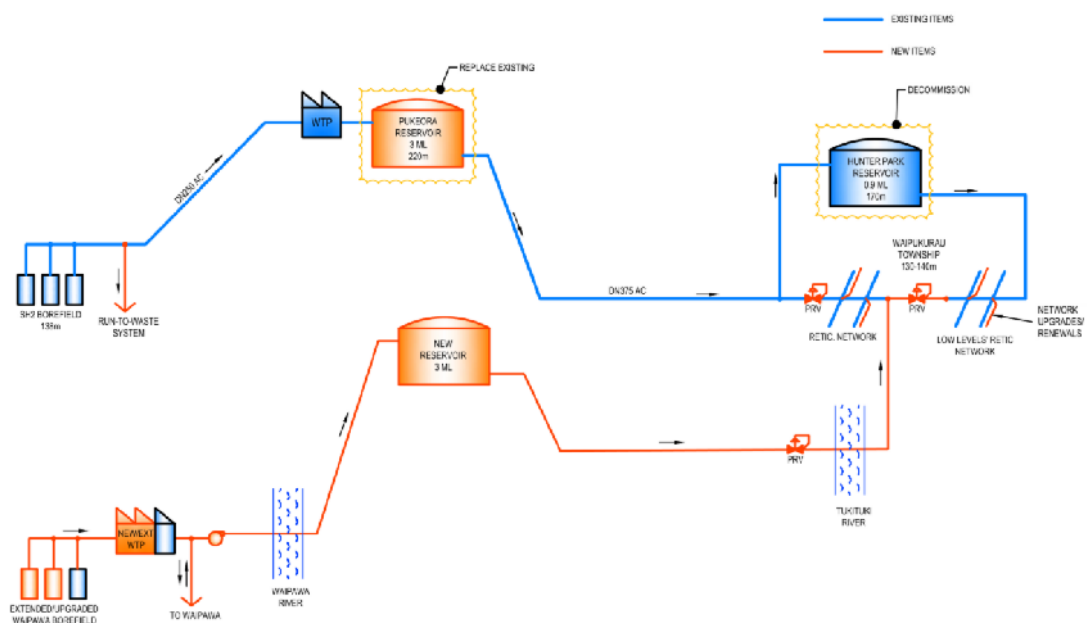
- Start-up turbidity spikes at the SH72 borefield would be buffered out by the raw water storage tank.
- The existing pumps would likely need to be replaced with lower-head pumps or otherwise modified.
- The transfer pipeline to the town reservoir would be a smaller diameter than for a trunk supply pipeline (DN300 vs. DN375).
- It would be possible to not replace the Hunter Park reservoir, but the elevated areas of town will quickly lose service and draw in air in the event of even a short-duration loss of pumping service.
- The existing AC rising and town supply mains would not need to be renewed, although a small pipeline up to the Pukeora reservoir site will be needed to service those properties.

3.4 Option 4: Waipawa Link

This option is largely unchanged except that the Pukeora reservoir would be replaced once the new supply from Waipawa was available; and the Hunter Park reservoir would be removed altogether (as elevated storage would be provided elsewhere).

This option involves developing or extending the existing Waipawa borefield and WTP to provide the sufficient water for Waipukurau which has water demand that is 200-250% higher than Waipawa.

The water would likely be pumped via a new pipeline from the Waipawa borefield over the hills between Waipawa and Waipukurau (a route along SH2 is a possibility but is longer), and a reservoir would be located at a suitable level along this route.



Schematic of Option 4

Notes about this option:

- The SH72 supply would not be usable during high-turbidity periods unless additional treatment were added.
- If the upgraded Waipawa source can fully supply Waipukurau, then the existing critical mains and reservoirs would become less critical and replacement of these could be deferred until their condition or performance requires it.
- This option has a higher delivery risk profile than the other options. The Waipawa borefield would need to be extended / consented; the new pipelines would cross private properties and two major rivers; and a site needs to be found for the elevated reservoir.
- It is possible that this option could also be configured to enable water from Waipukurau's SH2 borefield to supply Waipawa in an emergency. This would require additional pumping (not shown in the schematic or included in the cost estimates). Depending on the pipeline alignments and terrain, this may not be a practical or affordable option.

4 Multi Criteria Assessment (MCA) & Cost Estimate Update

When the initial MCA assessment was undertaken by the WSP and CHBDC team in April 2020, Option 2 scored highest. At that time, Option 4 scored highly in the technical categories, but its high cost reduced its overall score.

Following changes to the options as described in the preceding sections, we discussed the options and MCA scoring with you on 14 September. Some key points from that discussion are:

- CHBDC sees particular value in a link between Waipukurau and Waipawa to provide long-term (intergenerational) resilience and redundancy. Option 4 provides this link, and although it would initially be configured to supply water from Waipawa to Waipukurau, it could be upgraded in future to supply water in either direction. This would enhance the redundancy and reliability of the Waipawa water supply as well. This intergenerational aspect of the Options had little or no weighting in the original MCA.
- The ultimate long-term vision does not need to be fully delivered through this project, and parts of it can be funded and procured separately through the Long-Term Plan (LTP) process. For example, Option 4 as presented does not include replacing the Pukeora or Hunter Park Reservoirs (which both require replacement or strengthening within 7 years), nor renewal of the asbestos-cement trunk watermain that Waipukurau currently relies on.
- CHBDC understands that Option 4 presently has higher delivery risks than other options which could delay the project or incur additional unexpected costs. In particular, there are risks associated with land access, Waipawa borefield expansion, and consenting. Assessing these risks would be a focus for the concept design phase and the concept design will be used to commence discussions with landowners, regulatory authorities and other key stakeholders.
- If the risks associated with Option 4 cannot be satisfactorily resolved, Council may need to proceed with a different option.

Following this, we have updated the cost estimates and MCA scores and both are attached. We note that MCA scoring is inherently subjective, especially when the options have significantly different scope and outcomes. In this case Option 4 is significantly more expensive than Option 2A, however Option 4 provides additional benefits such as a duplicate pipeline from the Waipawa borefield to Waipawa, a dual raw water supply for Waipukurau and the potential for water to be supplied in either direction in the long term.

Please note that these cost estimates are still preliminary and were prepared for the purposes of comparing options. Further development and refinement of the cost estimates will occur during the concept design phase to provide greater certainty for CHBDC when striking budgets and/or allocating funding for the project.

A summary of the revised capital cost estimates is shown below.

Table 4-1: Updated Capital Cost Estimates

	Option 1	Option 2A	Option 2B	Option 4
Option Capital Cost	\$3.46M	\$7.51M	\$9.37M	\$11.38M
Provisional (LTP) Items	\$5.30M	\$0.90M	\$-	\$4.95M
Total Capital Cost	\$8.76M	\$8.41M	\$9.37M	\$16.33M

5 Conclusion

On the basis of the above discussion and revised MCA assessment, Option 4 is preferred, with Option 2A (town storage) being the preferred fallback option in the event that Option 4 cannot proceed.

We recommend that:

1. CHBDC proceeds with a concept design phase for Option 4 which will include an assessment of project risks and possible treatments, and refinement of the cost estimates, before proceeding further with this option.
2. If Option 4 is found to be too risky or expensive at the completion of the concept design phase, CHBDC should proceed with Option 2A.

Waipukurau Water Supply - MCA Assessment

Rev 5 17/09/2020
3-02089.01

Criteria	Weighting	Scoring [1 least favourable - 5 most favourable]							
		Option 1 - Enhanced Status Quo	Option 1 Weighted	Option 2 - Town Storage	Option 2 Weighted	Option 2a - Town Storage and Raw Water Storage	Option 2a Weighted	Option 4 - Waipawa	Option 4 - Weighted
Resilience The extent to which the option satisfies the following objectives: - More robust infrastructure with lower risk of damage - Improved network redundancy to reduce reliance on any one component - Increase time available to respond to a component failure	25	2	50	3	75	3	75	4	100
Potential contamination of river, and/or interruption of single source				Potential contamination of river, and/or interruption of single source		Single source, shorter supply main to town storage		(+ves) Second water source for both towns in long term, (-ves) unknown geotechnical issues, river crossing	
Consistent Level of Service The extent to which the option satisfies the following objectives: - Consistent compliance with DWSNZ (Drinking Water Standards NZ) - Consistent water supply provided at the right quantity and pressure	20	3	60	4	80	4	80	5	100
Subject to additional turbidity treatment				Subject to additional turbidity treatment, two supply points		Hunter park storage retained in town		Two supply points + two WTP	
Support sustainable growth The extent to which the option satisfies the following objectives: - Sufficient water available for sustainable growth - Infrastructure that delivers water to areas of desired growth	10	3	30	4	40	4	40	4	40
Central pump station improves distribution options in town				Central pump station improves distribution options in town		Central pump station improves distribution options in town		Connection to centre of town	
Cost - Whole of life capital and operating costs - Cost relative to available budget	15	5	75	5	75	5	75	4	60
Staging - The extent to which the option can be staged to stagger expenditure	15	4	60	3	45	2	30	2	30
Limited staging possible						Limited staging possible		Limited staging possible	
Delivery risk - the risks associated with delivering the solution that may lead to delays and/or costs. For example risks like: - finding a new water source - obtaining consents - access agreements or land purchase	15	3	45	3	45	3	45	3	45
Space / land / consents for new reservoir, more difficult to maintain service during construction, difficult construction access, route for new trunk main - south of aerodrome or stopbank? - State Highway corridor is 'full'				Land for reservoir site, route for new trunk main - south of aerodrome or SH2? - SH2 more congested but much shorter		Land for reservoir site, route for new trunk main - south of aerodrome or SH2? - SH2 more congested but much shorter		Extra water take risks (TBC), multiple landowners, difficult terrain and elevated geotechnical risk, consents. (Note: scored on the basis that risks are to be explored in a concept design phase, with the option to 'fall back' to another option if risks are too high)	
	100		320		360		345		375

Waipukurau Water Supply - High Level Cost Estimates for Comparison Purposes

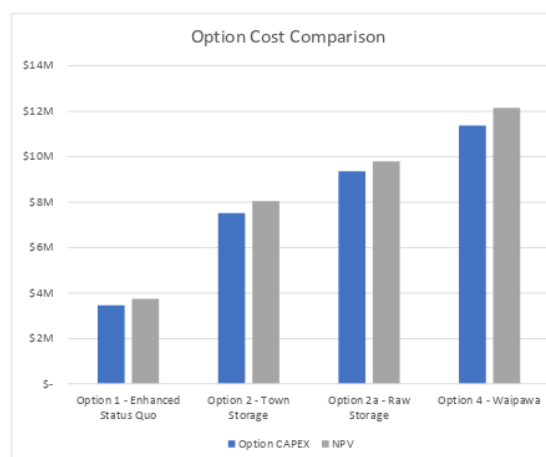
7/09/2020

3-c2089.01



Summary of Estimated Costs

	Option 1 - Enhanced Status Quo	Option 2 - Town Storage	Option 2a - Raw Storage	Option 4 - Waipawa
Option CAPEX	\$ 3.46M	\$ 7.51M	\$ 9.37M	\$ 11.38M
Provisional (LTP) Items	\$ 5.30M	\$ 0.90M	\$ -	\$ 4.95M
Total CAPEX	\$ 8.76M	\$ 8.41M	\$ 9.37M	\$ 16.33M
Net Opex	\$ 20,000	\$ 37,500	\$ 30,000	\$ 55,000
NPV	\$ 3.74M	\$ 8.04M	\$ 9.79M	\$ 12.15M



Waipukarau Water Supply Upgrades - Comparative Cost Estimates																	
Option 1 - Enhanced Status Quo						Option 2 - Town Storage				Option 2a - Raw Water Storage				Option 4 - Waipawa			
Item	Description	Unit	Qty	Rate	Amount	Unit	Qty	Rate	Amount	Unit	Qty	Rate	Amount	Unit	Qty	Rate	Amount
1	SUPPLY																
1.1	Land acquisition	LS			\$ -	LS			\$ -					LS	1	\$ 250,000	\$ 250,000
1.2	New bores	LS			\$ -	LS			\$ -					LS	1	\$ 150,000	\$ 150,000
1.3	Headworks civil	LS	1	\$ 75,000	\$ 75,000	LS	1	\$ 75,000	\$ 75,000					LS	1	\$ 175,000	\$ 175,000
1.4	Headworks mechanical	LS	1	\$ 125,000	\$ 125,000	LS	1	\$ 125,000	\$ 125,000	LS	1	\$ 150,000	\$ 150,000	LS	1	\$ 245,000	\$ 245,000
1.5	Headworks electrical	LS	1	\$ 50,000	\$ 50,000	LS	1	\$ 50,000	\$ 50,000	LS	1	\$ 100,000	\$ 100,000	LS	1	\$ 200,000	\$ 200,000
1.6	Rising main	m	710	\$ 450	\$ 319,500	m	710	\$ 450	\$ 319,500	m	710	\$ 75	\$ 53,250		4600	\$ 450	\$ 2,070,000
1.7	Emergency link	LS	1	\$ 30,000	\$ 30,000	LS	1	\$ 30,000	\$ 30,000					LS	1	\$ 30,000	\$ 30,000
2	TREATMENT																
2.1	Land acquisition				\$ -				\$ -					LS	1	\$ 200,000	\$ 200,000
2.2	Treatment civil				\$ -				\$ -	LS	1	\$ 1,000,000	\$ 1,000,000	LS	1	\$ 50,000	\$ 50,000
2.3	Turbidity removal	LS	1	\$ 400,000	\$ 400,000	LS	1	\$ 400,000	\$ 400,000	LS	1	\$ 400,000	\$ 400,000	LS	1	\$ 400,000	\$ 400,000
2.4	Disinfection (UV + Chlorine)				\$ -				\$ -	LS	1	\$ 400,000	\$ 400,000	LS	1	\$ 500,000	\$ 500,000
2.5	Additional Treatment (Fe/Mn/hardness)				\$ -				\$ -	LS			\$ -	LS			\$ -
3	DISTRIBUTION																
3.1	Land acquisition	LS			\$ -	LS	1	\$ 400,000	\$ 400,000	LS	1	\$ 400,000	\$ 400,000	LS	1	\$ 200,000	\$ 200,000
3.2	Reservoirs	LS		\$ -	\$ -	LS	1	\$ 2,000,000	\$ 2,000,000	LS	1	\$ 3,000,000	\$ 3,000,000	LS	1	\$ 2,000,000	\$ 2,000,000
3.3	Minor ex. reservoir improvements	ea			\$ -	ea			\$ -	ea			\$ -				
3.4	Trunk main	m	3600	\$ 450	\$ 1,620,000	LS	3800	\$ 450	\$ 1,710,000	m	3300	\$ 330	\$ 1,089,000	m	4400	\$ 450	\$ 1,980,000
3.5	Pumping station	LS			\$ -	LS	1	\$ 750,000	\$ 750,000	LS	1	\$ 750,000	\$ 750,000	LS	1	\$ 500,000	\$ 500,000
3.6	Retic PRVs	ea	2	\$ 75,000	\$ 150,000	ea	2	\$ 75,000	\$ 150,000	ea	2	\$ 75,000	\$ 150,000	ea	2	\$ 75,000	\$ 150,000
	Subtotal				\$ 2,769,500				\$ 6,009,500				\$ 7,492,250				\$ 9,100,000
4.1	Design, P&G, Consenting	%	25%	\$ 2,769,500	\$ 692,375	%	25%	\$ 6,009,500	\$ 1,502,375	%	25%	\$ 7,492,250	\$ 1,873,063	%	25%	\$ 9,100,000	\$ 2,275,000
	TOTAL CAPEX				\$ 3,461,875				\$ 7,511,875				\$ 9,365,313				\$ 11,375,000
5	PROVISIONAL ITEMS (not included in totals)																
5.1	Pukeora reservoir replacement	PS	1	\$ 4,950,000	\$ 4,950,000	PS	1	\$ 900,000	\$ 900,000					PS	1	\$ 4,950,000	\$ 4,950,000
5.2	Hunter Park reservoir replacement	PS	1	\$ 350,000	\$ 350,000												
	Subtotal				\$ 5,300,000				\$ 900,000				\$ -				\$ 4,950,000
6	OPEX																
6.1	Net increase in treatment OPEX	%	5%	\$ 400,000	\$ 20,000	%	5%	\$ 400,000	\$ 20,000	%	5%	\$ 400,000	\$ 20,000	%	5%	\$ 400,000	\$ 20,000
6.2	Net increase in energy use	kWh		\$ 0.25	\$ -	kWh	40000	\$ 0.25	\$ 10,000	kWh		\$ 0.25	\$ -	kWh	120000	\$ 0.25	\$ 30,000
6.3	Net increase pump maintenance	%	1%	\$ -	\$ -	%	1%	\$ 750,000	\$ 7,500	%	1%	\$ 1,000,000	\$ 10,000	%	1%	\$ 500,000	\$ 5,000
	TOTAL OPEX INCREASE				\$ 20,000				\$ 37,500				\$ 30,000				\$ 55,000
	25-YEAR NPV (5% discount rate)				\$ 3,743,754				\$ 8,040,398				\$ 9,788,131				\$ 12,150,167

DRAFT 17/09/2020

WSP



Memorandum

To	Darren de Klerk
Copy	Stephanie Glenn
From	David Gardiner - Technical Director Water
Office	Christchurch
Date	29 September 2020
File/Ref	3-c2089.01
Subject	Waipukurau Second Water Supply - Delivery Plan

The following abbreviated delivery plan is prepared as an attachment to Central Hawkes Bay District Council's Three Waters Stimulus Grant Delivery Plan.

Scope of Works

The Waipukurau Water Supply Upgrade project involves:

- Upgrade the capacity of the existing Waipawa Borefield (investigation and production bores)
- Upgrade the capacity of the existing Water Treatment Plant
- New connection from the rising main to Waipawa
- 4.6km of rising main from Waipawa Treatment Plant to a new reservoir, located between Waipawa and Waipukurau
- New 3 ML reservoir
- New pump station
- 4.4 km of new trunk main between the new reservoir and Waipukurau
- Installation of PRVs on the reticulation system in Waipukurau

Funding and Timeframes

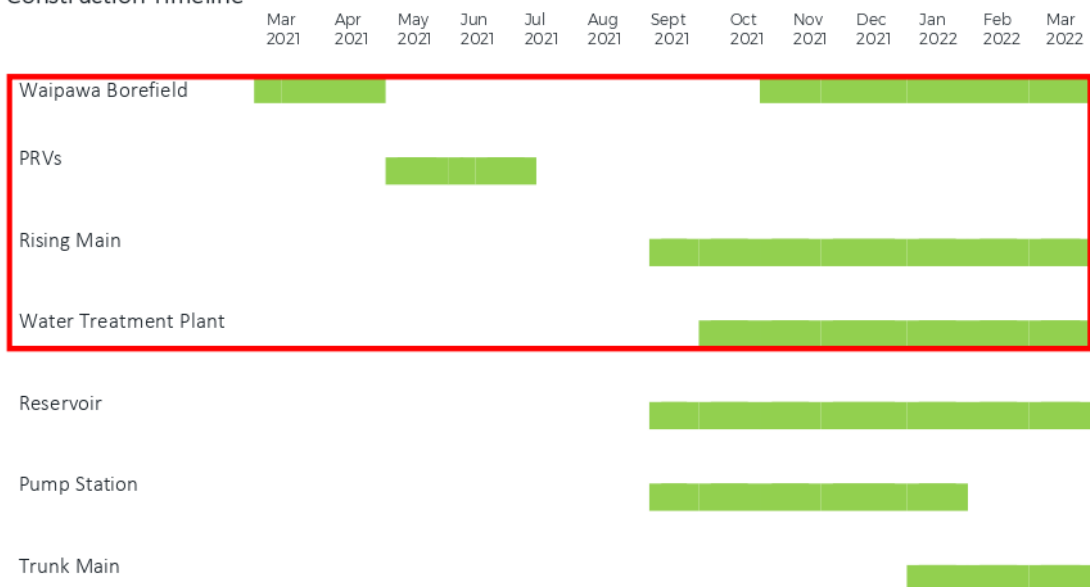
The upgrade would be constructed starting at the Waipawa end. The elements highlighted in the following table, totalling \$5.31M, would be partially funded through three waters stimulus funding (up to \$3.3m) with the balance being funded through CHBDC's LTP funding.

Work Element	Design / Procurement	Construction timeline	Construction Budget
Waipawa Borefield	Nov 2020 – Feb 2021	Bore: Mar – Apr 2021 Civil works: Nov 2021 - Mar 2022	\$1,250,000
PRVs	Jan 2021 – Mar 2021	May 2021 – Jul 2021	\$180,000
Rising Main	Jan 2021 – Aug 2021	Sept 2021 – Mar 2022	\$2,500,000
Water Treatment Plant	May 2021 – Sept 2021	Oct 2021 – Mar 2022	\$1,380,000
Reservoir	Jan 2021 – Aug 2021	Sept 2021 – Mar 2022	\$2,400,000

WSP
Christchurch
12 Moorhouse Avenue
Christchurch 8011
New Zealand
+64 3 363 5400
wsp.com/nz

Pump Station	Jan 2021 – Aug 2021	Sept 2021 – Jan 2022	\$600,000
Trunk Main	Nov 2020 – Jul 2021	Dec 2021 – Jun 2022	\$2,400,000

Construction Timeline



6 DATE OF NEXT MEETING

2021 Committee meeting dates are yet to be set. The meeting schedule for 2021 will be circulated before the end of October 2020.

7 TIME OF CLOSURE