

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](http://www.chbdc.govt.nz/the-big-wastewater-story)

#the *BIG*
Waste Water Story



**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

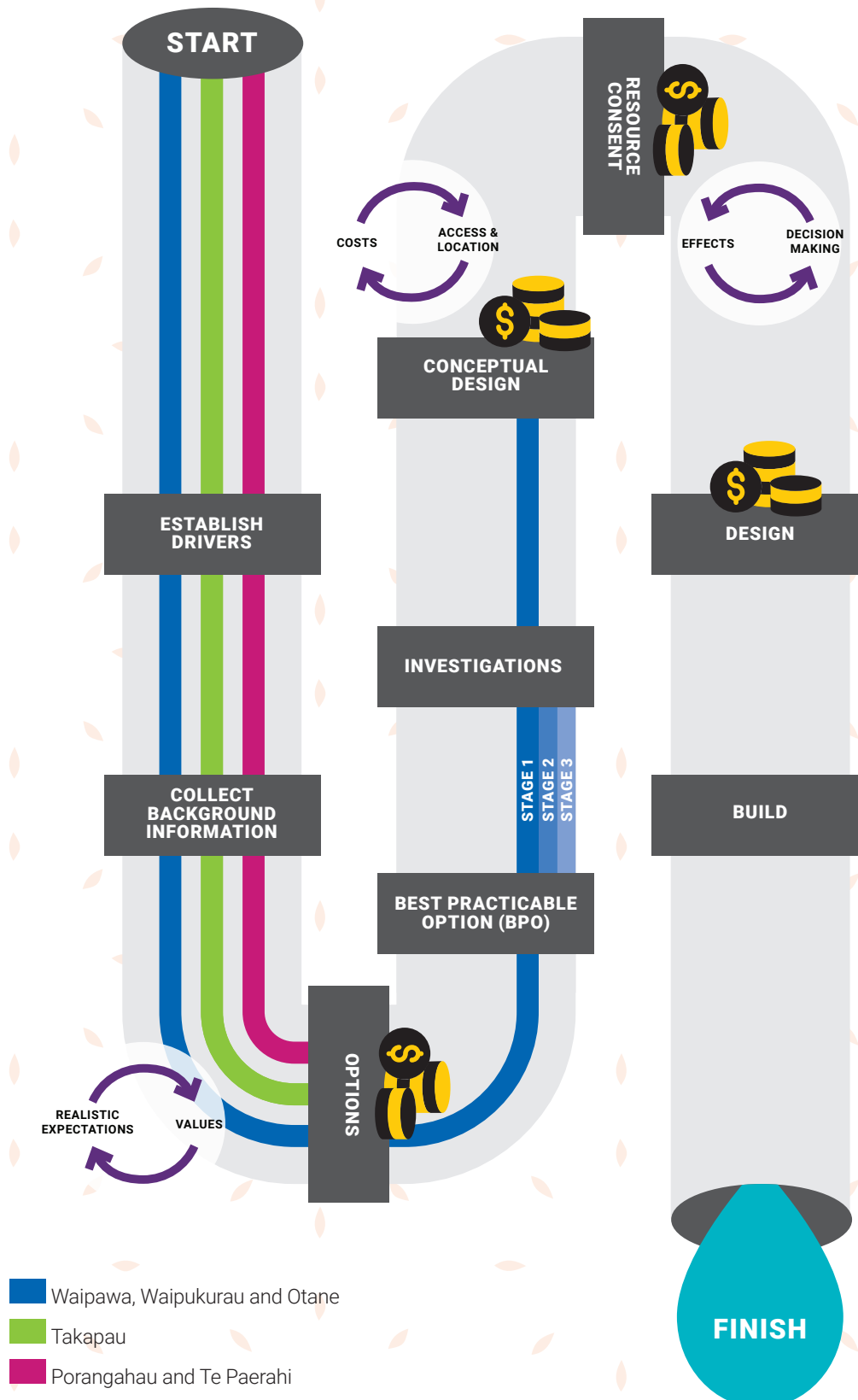
We have heard, through our community meetings to date, that the Status Quo is no longer acceptable. The current river discharges are no longer okay, we need to future proof for growth and to comply with impending changes to freshwater standards.

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



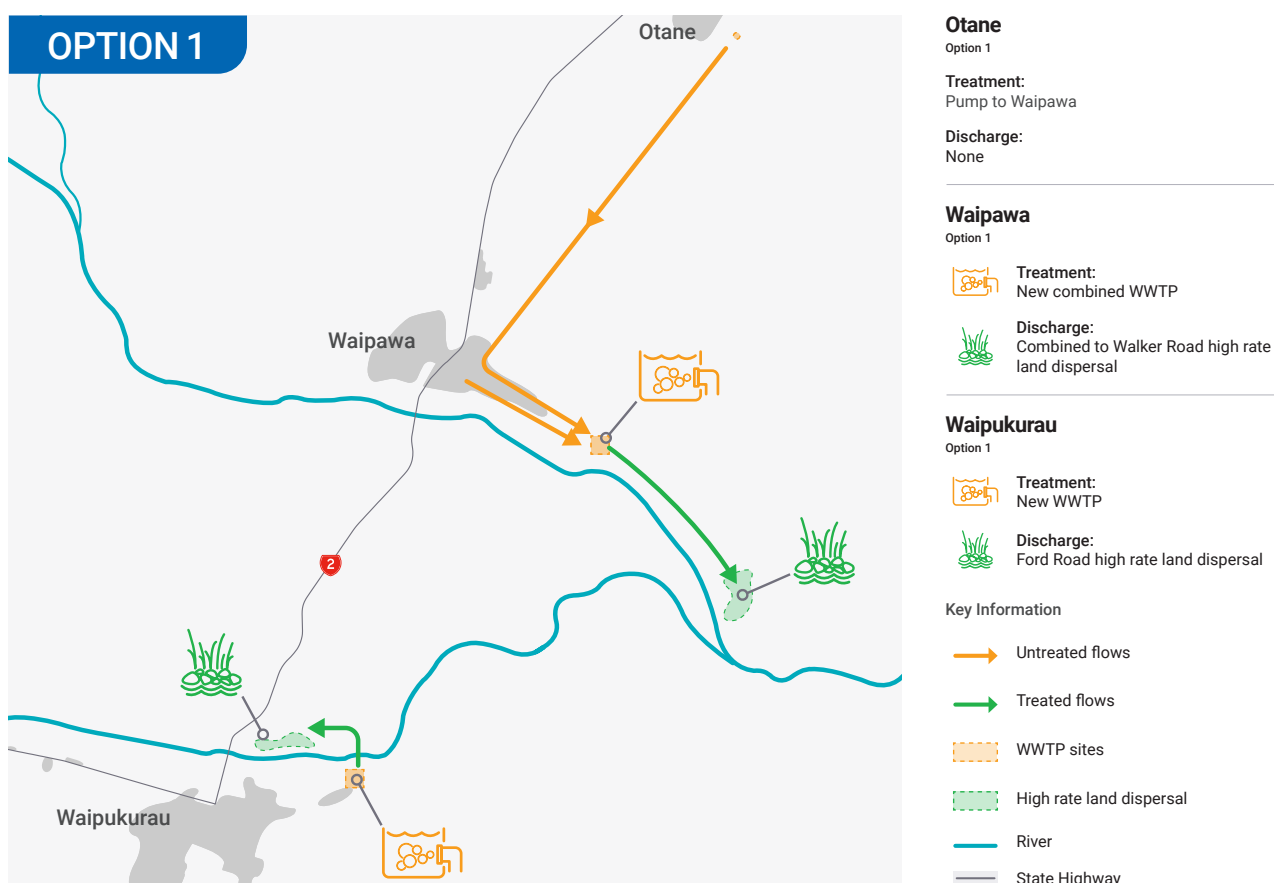
PROJECT ONE

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.

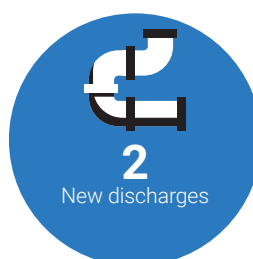
Through all of this, Council has been working closely with community members to develop options which focus on generational thinking to ensure a positive balance between the environmental health of our District, the strength of our infrastructure to enable Central Hawke's Bay to Thrive, and affordability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



OPTION 2



Otane

Option 2

Treatment:

Pump to Waipawa

Discharge:

None

Waipawa

Option 2



Treatment:

New combined WWTP for all sites



Discharge:

Combined to Walker Road high rate land dispersal

Waipukurau

Option 2

Treatment:

Pump to Waipawa

Discharge:

None

Key Information

Orange arrow: Untreated flows

Green arrow: Treated flows

Orange box: WWTP sites

Green box: High rate land dispersal

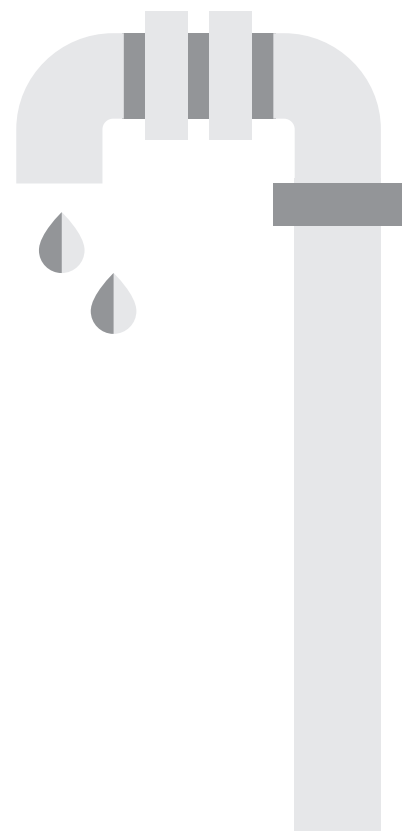
Blue line: River

Grey line: State Highway

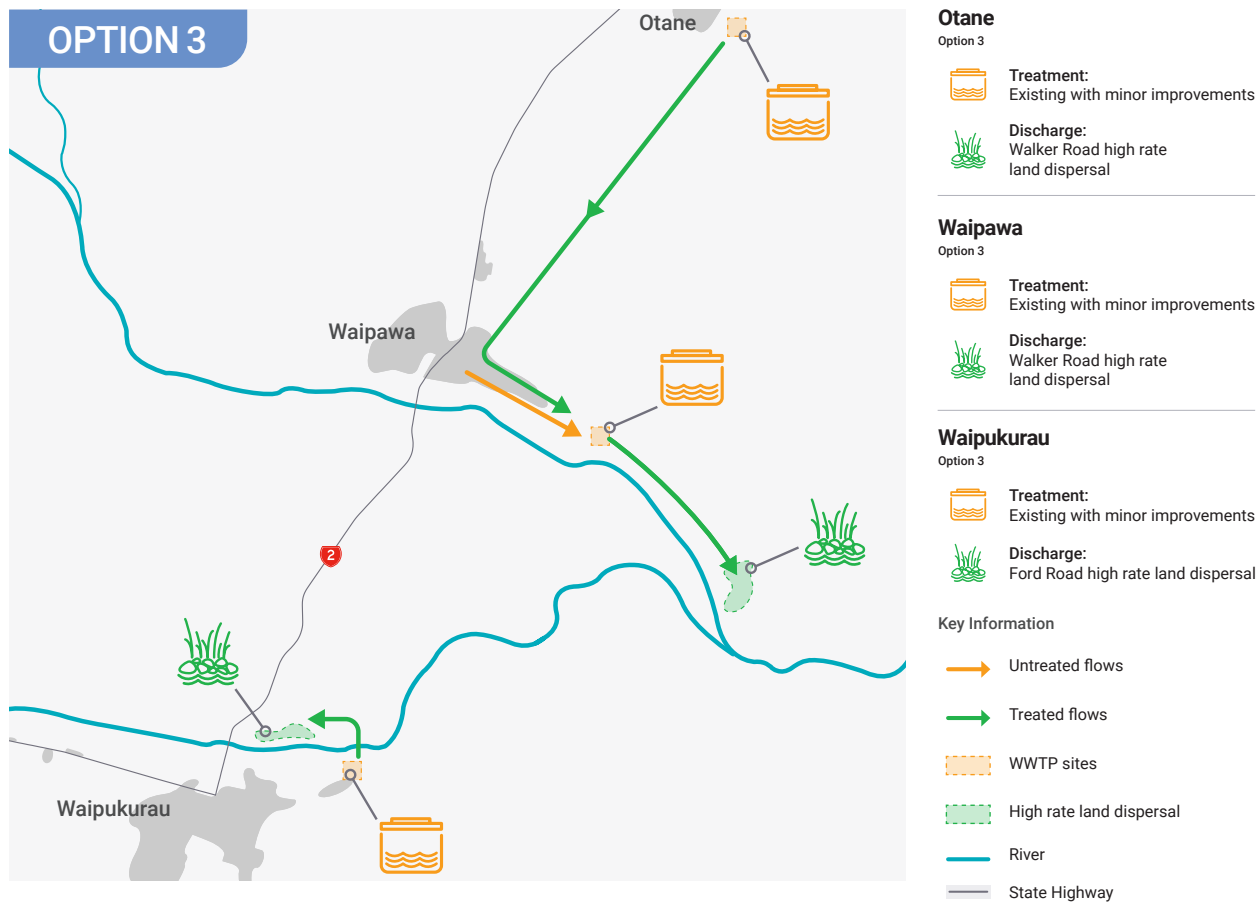
- A standalone, new Wastewater Treatment Plant is built in Waipawa
- Discharge to Land at Walker Road through a Rapid Infiltration Bed
- Otane and Waipukurau's wastewater conveyed via pipeline to the Waipawa Wastewater Treatment Plant

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



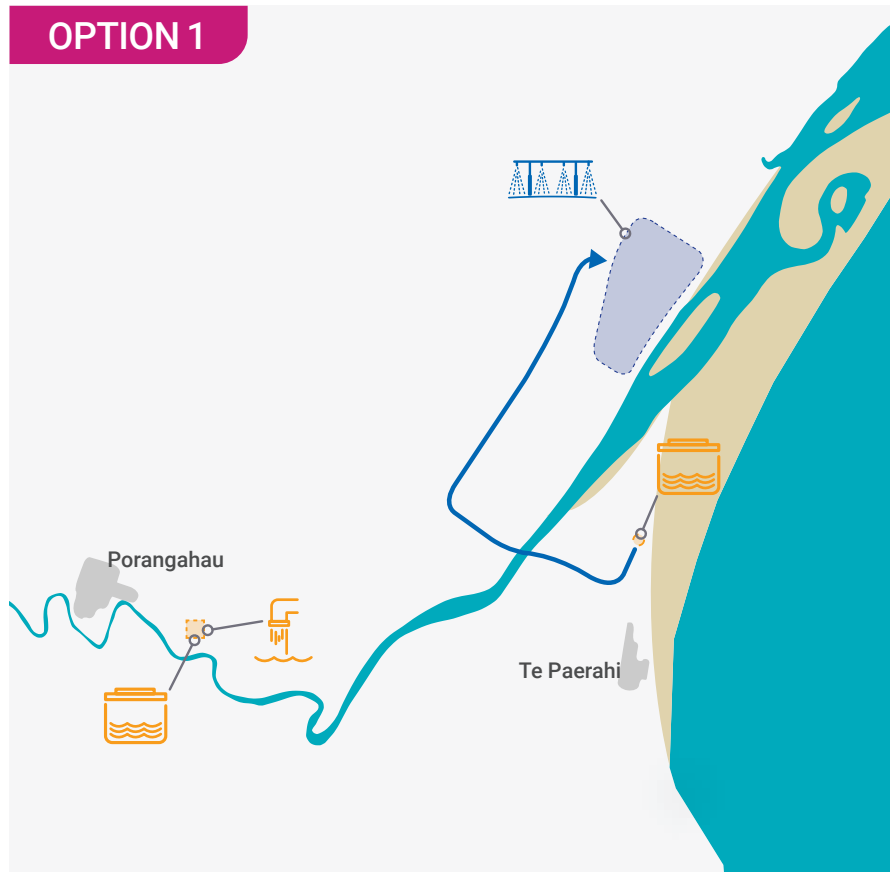
PROJECT TWO

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.

OPTION 1



Porangahau

Option 1



Treatment:
Existing pond with minor improvements



Discharge:
Existing wetland to river

Te Paerahi

Option 1



Treatment:
Existing pond with minor improvements



Discharge:
Low rate land treatment

Key Information



WWTP



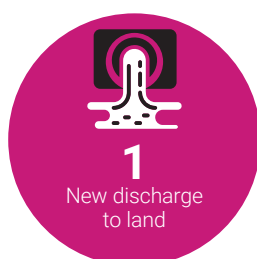
River

Land site still to be confirmed and location may change.

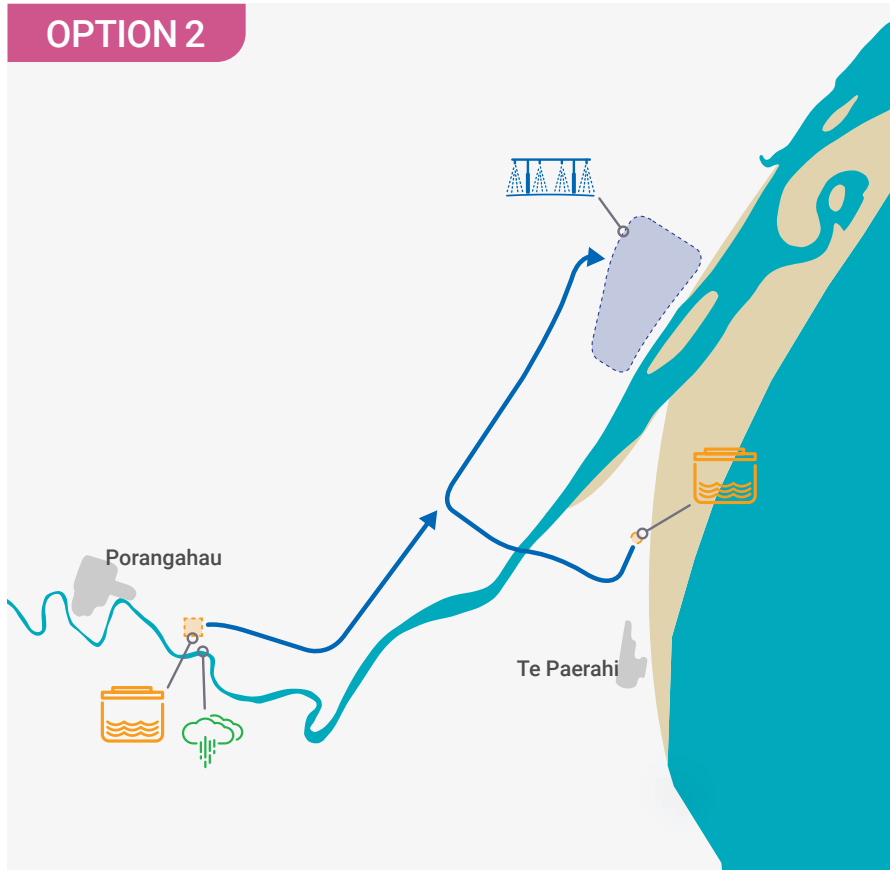
- Minor treatment improvements at both current Wastewater Treatment Plants
- Convey wastewater (build pipeline) from Te Paerahi to the new land site
- Construct a new land discharge site
- Continue to discharge Porangahau to river but at slightly better treatment

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



OPTION 2



Porangahau

Option 2



Treatment:
Existing pond with minor improvements



Discharge:
Low rate land treatment



Wet:
Wetland to river

Te Paerahi

Option 2



Treatment:
Existing pond with minor improvements



Discharge:
Low rate land treatment

Key Information



Low rate land treatment



WWTP

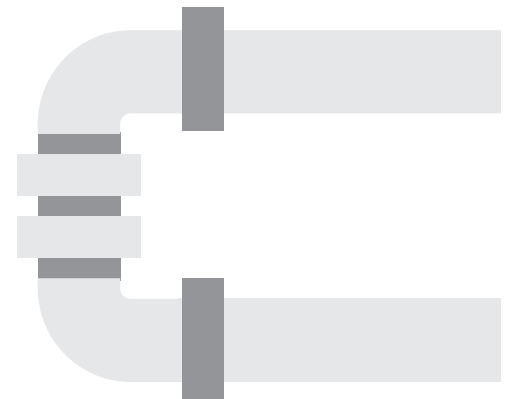


River

- 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

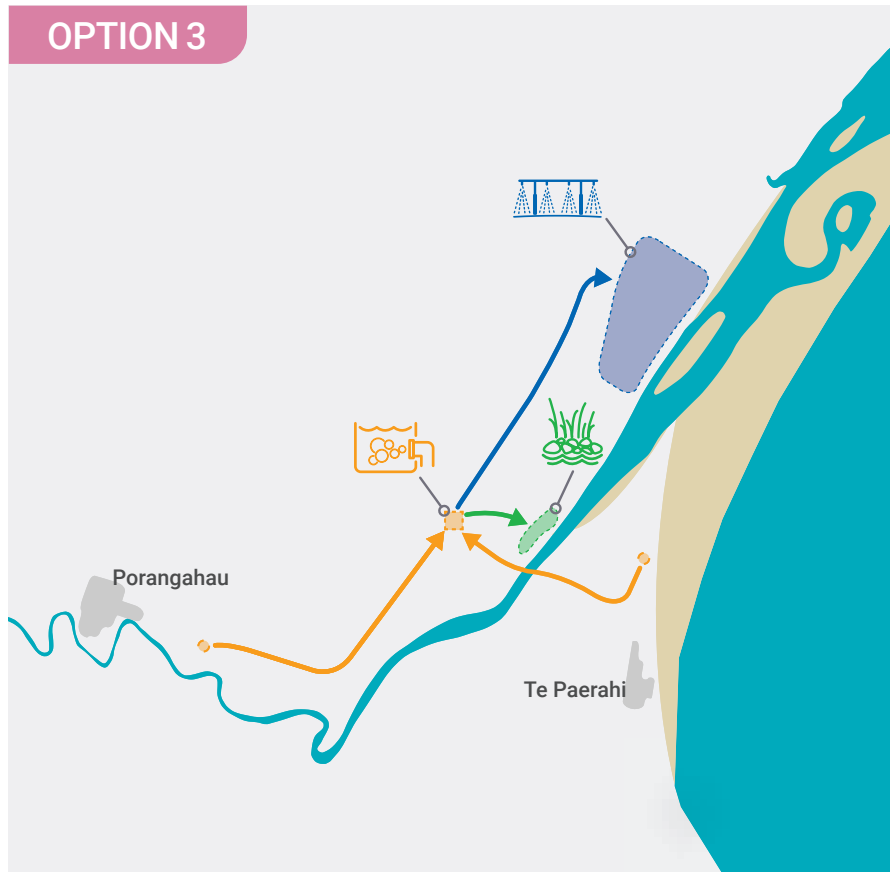
Benefits

- 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

OPTION 3



Porangahau

Option 3



Treatment:
New combined WWTTP



Discharge:
High rate land dispersal



Discharge:
Low rate land treatment

Te Paerahi

Option 3



Treatment:
New combined WWTTP



Discharge:
High rate land dispersal



Discharge:
Low rate land treatment

Key Information



Low rate land treatment



High rate dispersal



WWTTP



River

- 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



1

New wastewater treatment plant



2

New discharge to land



\$17.6m

Circa cost

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.

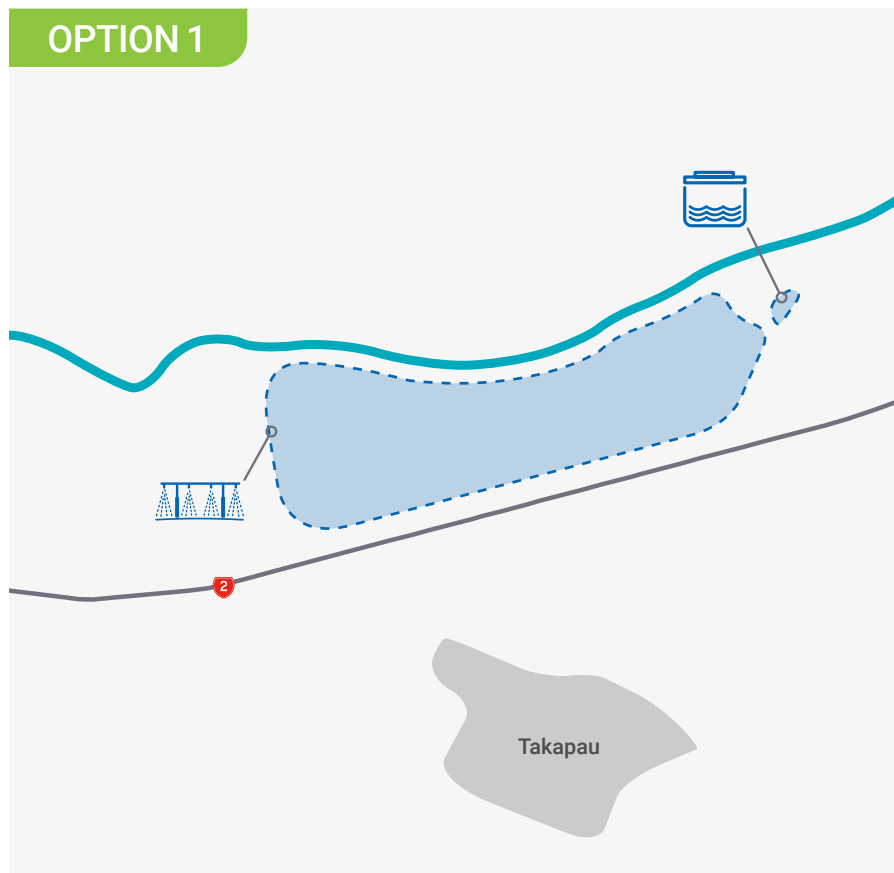
PROJECT THREE

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.

OPTION 1



Takapau

Option 1



Treatment:
Existing pond with
minor improvements



Discharge:
Low rate land (year round)

Key Information



Low rate land treatment



Upgraded pond



River



State Highway

- 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



Existing wastewater treatment plant + minor improvements



2

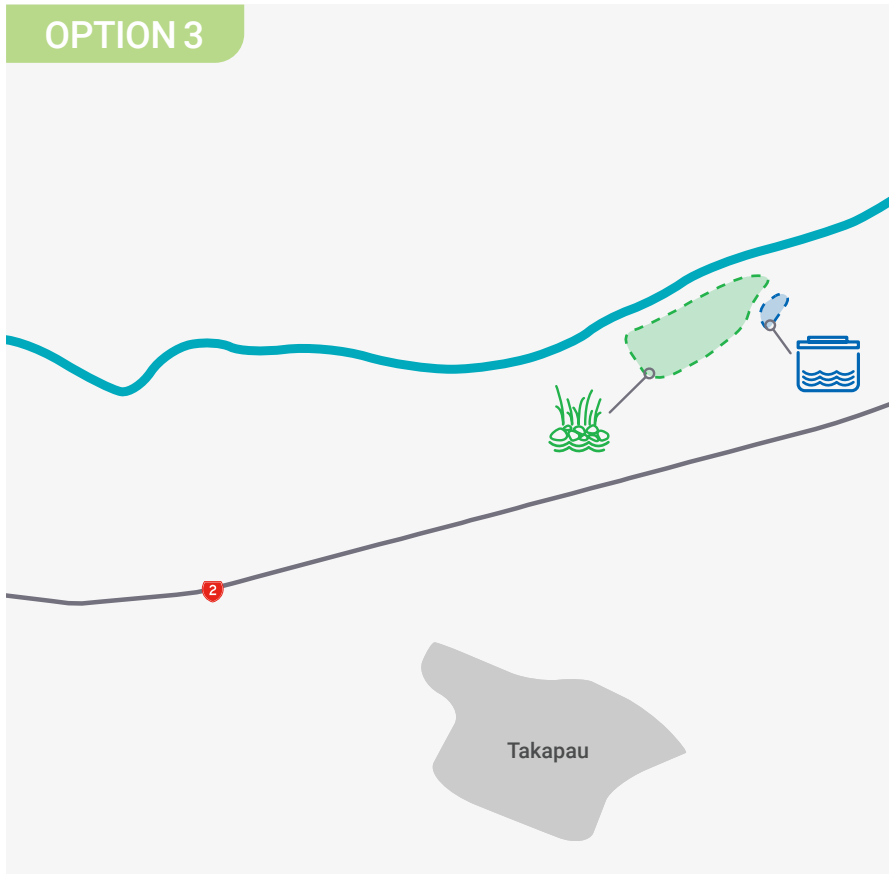
New discharge to land



\$2.3m
Circa cost



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



Existing wastewater treatment plant + minor improvements



1

New discharge to land



\$2.4m
Circa cost

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 gravelly 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?