

Pōrangahau/Te Paerahi Wastewater Project and Discharge Consent Application

Mihi

Iā Kere te ngāhuru, ka ngāhuru noa atu.
Iā Manuwhiri te kōkō tāngaengae ki te Paerahi.
Nei rā te whenua taurikura mai Pōrangahau,
ki te tirohanga o Te Paerahi e.
Titiro kau ana kia tātou taonga kāmehehema,
kia mau, kia pupuru.
He tono anō ēnei kia whakarite te parakaingaki ki te wāhi noho kainga nei.
Tuatahi, he mihi nui ki te tangata whenua, hapatia te mana o te iwi.
Tēnā koutou katoa.

Introduction

Kia ora Pōrangahau and Te Paerahi residents. We wanted to take the opportunity to provide an update on the wastewater upgrade project that we have been working on for some time. The resource consent has been lodged and is currently out for a public notification – please read on for more detail, and feel free to reach out to Council if you have any queries on 06 857 8060.

Background

Central Hawke's Bay District Council (CHBDC) are in the process of renewing and replacing our resource consents for the discharge of wastewater from the Pōrangahau and Te Paerahi Wastewater Treatment Plants (WWTPs).

Currently for Pōrangahau, wastewater is treated at the Pōrangahau WWTP at the end of Jones Street and discharged to the Pōrangahau River. For Te Paerahi, wastewater is currently treated at the Te Paerahi WWTP north of the community and discharged to adjacent dunes.

Both consents expired at the end of May 2021. Transitional consents were lodged in February 2021 for the continuation of the existing discharges to allow for the design and lodgement of the long-term solution being sought here, following the Long Term Plan in 2021 to secure funding. Under the Resource Management Act (RMA), the existing consents can continue to operate until the approval of the replacement long-term consents.

Consent Application

The consent application was received by Hawke's Bay Regional Council (HBRC) on the 27th of August 2021.

The application will be publicly notified on **14 April 2022** in the Hawke's Bay Today and the Central Hawke's Bay (CHB) Mail. Submissions will close at **5.00 pm** on **17 May 2022**.

CHBDC have opted to have these consents publicly notified. This allows any member of the public to give feedback on the consent application. Depending on the type and number of submissions, a hearing may take place.

Option Selection

Over the past three years CHBDC has engaged with the Pōrangahau and Te Paerahi community, mana whenua and interested parties. This has involved listening to concerns related to the existing discharges and discussing alternatives to these discharges to the Pōrangahau River and sand dunes. Included has been visits by Tangata whenua, land owners and councillors to see examples of discharges, with an emphasis on land application system.

Continuation of the existing discharges was not an option for the community. CHBDC have listened and are proposing a land discharge system for both communities. This will see 40 ha of farmland irrigated and the staged ceasing of discharges to the Pōrangahau River and sand dunes entirely.

Proposed System

Resource consents are being sought to irrigate land at a common land discharge property located between the Pōrangahau and Te Paerahi communities with sprinklers. Treated wastewater will be largely applied in a way that allows nutrients to be beneficially reused. A new WWTP servicing both communities will be constructed at the property and the existing WWTPs decommissioned over time. A storage pond will be constructed at the property to hold water for later irrigation when soil conditions are wet. This system will involve the construction of pipelines from the communities to the property along the road corridor. Wastewater will continue to be treated at the current WWTPs until the new WWTP is built.



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Staging of New System

Changes proposed will be in three stages:

- **Stage 1** – Completed within 4 years. A pipeline will be installed from the Te Paerahi WWTP to the property. All of Te Paerahi's treated wastewater flows will be irrigated to 4 ha. The discharge to sand dunes will cease. Discharge of Pōrangahau's wastewater will be as per the status quo albeit with the addition of UV treatment.
- **Stage 2** – Completed within 6 years. Another pipeline will be installed from Pōrangahau to the property where between 61 % to 100 % of Pōrangahau's wastewater flows will be discharged to land. A further 6 ha of irrigation will be established at the property, allowing for 10 ha of irrigation in total.
- **Stage 3** – Completed within 9 years. A combined WWTP servicing both the Pōrangahau and Te Paerahi communities will be built at the discharge property. A storage pond will also be built. A further 30 ha of irrigation will be established at the property, allowing for a minimum 40 ha. This system will allow for 100 % of Pōrangahau and Te Paerahi's wastewater to be discharged to land. It will see the ceasing and decommissioning of the existing discharges and WWTPs.

System Design

The operation of a land discharge system will have a separation (buffer) to boundaries and the Pōrangahau River where no wastewater irrigation will occur. The visual appearance of the wastewater system will be no different from typical freshwater irrigation which is common in the Central Hawke's Bay area. Wastewater irrigation is to pose no risk to public health, with spray drift and odour being managed within the property.



Feedback to CHBDC

This is a long term project committed to by CHBDC, one of which we hope meets community aspirations.

Feel free to let us know your feedback on the proposal, we'd love to hear from you!

Please contact Council on 06 857 8060 or via email fiona.clark@chbdc.govt.nz

Visit our website for more information: <https://www.chbdc.govt.nz/our-district/projects/the-big-wastewater-story/porangahau-and-te-paerahi-wastewater-system-upgrades/>

Making a Formal Submission to HBRC

Any person may make a submission on the application can do so by going online to www.hbrc.govt.nz, search: **#notified** and completing the online submission form (Form 13).

Hard copy submission forms can also be obtained from Hawke's Bay Regional Council reception or upon request.

Hawke's Bay Regional Council must receive your submission no later than **5 pm on 17 May 2022**.

A direct link can be found [here](#).

Frequently Asked Questions

What is land treatment?

Land treatment and discharge is where treated wastewater from a wastewater treatment plant is applied to the land at a rate which plants can take up nutrients and use this for plant growth. This allows nutrients to be beneficially returned to the land, rather than through an alternative discharge system such as surface water.

Will irrigation spray drift be an issue?

The aim of the irrigation system will be to ensure there are no affects beyond the irrigation property boundary. Buffers/setbacks will be used and the system will be designed to limit spray drift. Additionally, a wind shut off system will be used where irrigation will be stopped when wind speed exceeds a set limit from a certain direction to minimise any drift.

Will there be odour from the irrigation system?

Odour is a result of a lack of oxygen within wastewater. These conditions typically occur at the bottom of a treatment plant pond or in pipelines where water can sit for an extended period of time. Odour will be managed by making sure the treatment ponds are working properly. If oxygen levels are too low then more treatment will be needed prior to irrigation. If there is water sitting in the irrigation system for some time it can be smelly. This being the case the irrigation system will be started within the centre of the property, away from Beach and Hunter Roads.

What will the system look like?

The irrigation system will appear no different to typical fixed sprinklers and moveable pods. Unless one was told, there will be no indication it is wastewater being irrigated. Wastewater will appear clear and be indistinguishable from freshwater irrigation.

What will be grown on the land?

We are expecting the wastewater will be used to primarily grow grass, however a range of crops such as oats and chicory may be grown. This may vary on a seasonal basis. No crops will be grown for direct human consumption but animals can graze and be processed without restriction.

Is there a risk to public health?

Like any other environment containing wastewater, care should always be taken when around such locations. All wastewater flows leaving the wastewater treatment plant and irrigated to land will be UV treated, killing bugs that can live in wastewater, reducing the risks to public health.

Will irrigation occur right up to adjacent roads?

No. There will be a section of the irrigated area close to Beach and Hunter roads where no wastewater irrigation will occur. Fixed sprinklers will be attached to fence posts within the interior of the property, whereas moveable pods can be manually shifted and will always be positioned so that irrigation is not in proximity to Beach and Hunter Roads.

What is the purpose of storage?

Storage allows wastewater flows to be captured at periods where the soil may be too wet and cannot receive irrigation. This capturing of wastewater avoids the need for a surface water discharge as flows can be held until a more suitable time for irrigation.

What other towns have systems like this around the North Island?

There are numerous land treatment sites in operation. Communities like Levin, Foxton, Feilding, Shannon, Masterton, Carterton, Greytown, Martinborough and Taupo all currently discharge their treated wastewater to land via similar systems with many others in the process of developing land treatment systems.

How is wastewater treated before being discharged?

Currently Pōrangahau and Te Paerahi have a buried sewer network. This allows household sewage to be collected and pass in buried pipes to the current Pōrangahau and Te Paerahi Wastewater Treatment Plants (WWTP). This sewage consists of predominantly water but also includes the likes of faecal material, bacteria, wash water (kitchen, laundry, showers) and toiletries. All material is produced or put in the sewer directly by us as a result from our daily activities. The condition of the sewerage is not suitable for discharge and requires treatment. Treatment includes screening and filtering, producing wastewater suitable for discharge. One of the main roles of the treatment plant is to reduce the organic material and ensure that when discharged the predominately liquid material is not going to smell, negatively affect the receiving environment or be harmful to us if we want to use the water ways.

The treatment systems currently at both Pōrangahau and Te Paerahi are oxidation ponds. Ponds have a number of purposes, with the primary purpose ensuring that what goes out is cleaner than what comes in. Within a treatment pond, components of wastewater, such as solids, will sink to the bottom of the pond and be removed from the wastewater when discharged. Pathogens (bacterial and viruses) in wastewater are removed both via sunlight, whereby UV radiation kills a large portion of pathogens at the pond surface. With short the term improvements proposed at Pōrangahau, a UV disinfection system is to be installed to further kill pathogens. The use of aerators also provide aeration to the pond whereby, oxygen becomes incorporated that allows for algae present within the pond to assist break down of organic matter.

The new system at the proposed land discharge site will be a combination of pond and more advance treatment process. It will achieve a better effluent quality that the current ponds. From there the water will be irrigated to paddocks. There will be no direct discharge to surface water.