MARTINBOROUGH WASTEWATER TREATMENT PLANT STAGE 2 IMPROVEMENTS – ENGAGEMENT UPDATE

Author: James O'Connor, Group Manager, Infrastructure and Community Operations

Authoriser: Janice Smith, Chief Executive Officer

File Number:

PURPOSE

This report is an information update regarding on-going community consultation and engagement activity that is being undertaken in relation to Stage 2 Improvements to the Martinborough Wastewater Treatment Plant (MWWTP). The Stage 2 Improvements are proposals to irrigate treated wastewater from the MWWTP to land located to the north of Pain Farm.

EXECUTIVE SUMMARY

Consultation and engagement to date have included targeted communication and discussions with all property owners located near the proposed irrigation area north of Pain Farm. Broader community engagement has also been completed through a dedicated project webpage and posters displayed at the Martinborough Library and P&K Four Square. This activity has resulted in 18 submissions and 24 requests for information (from 10 parties living close to the proposed irrigation area).

From the submissions and information requests received, the following key issues have been identified:

1. Concern that the Council did not involve the community, nor use due process when it acquired land north of Pain Farm;
2. Concern that Council has not reassessed alternative methods for managing treated wastewater from the MWWTP, nor reconsidered alternative land locations for discharge;
3. Concern that irrigating treated wastewater to land may result in adverse effects on neighbouring properties, including potential groundwater effects and increased traffic.

In response to these matters, the Project Team has refined the concept design and incorporated additional measures to ensure effects do not extend beyond the irrigation site boundary.

Investigations are ongoing and include continued engagement with the local community. These investigations are programmed to conclude and allow lodgement of RMA applications to discharge treated wastewater to the land north of Pain Farm in May / June this year.

RECOMMENDATIONS

Officers recommend that the Committee:

1. Receive the Martinborough Wastewater Treatment Plant stage 2 improvements – engagement update report.
2. Notes the changes to the concept design, the issues raised by the community and that the RMA applications are due to be lodged by June 2026.

BACKGROUND

The Stage 2 improvements to the Martinborough Wastewater Treatment Plant (MWWTP) are required under the RMA resource consents granted in 2016. These improvements represent the final steps in eliminating routine discharges of treated wastewater to the Ruamāhanga River, with discharge to occur to land instead, except in exceptional circumstances.

Stage 1A and Stage 1B improvements were completed in 2018. The 2016 consents anticipate Stage 2 being implemented on Pain Farm progressively, with Stage 2A required by 2030 and Stage 2B by 2035. However, in 2025 Council determined that Pain Farm should not be used for this purpose. During that period, the owner of land adjoining and to the north of Pain Farm offered to sell approximately 74 hectares as an alternative irrigation site. Following positive due diligence assessments, Council agreed to proceed with the purchase in May 2025, and settlement was completed in February 2026.

New RMA approvals are required to authorise the discharge of treated wastewater to this land north of Pain Farm and to construct a new pipeline between the MWWTP and the irrigation area. A project team was established in Spring 2025 to investigate the site and develop a concept design for land-based irrigation. The team is now preparing resource consent applications, including an assessment of environmental effects and supporting technical reports. On the current programme, the applications will be lodged in May/June 2026.

DISCUSSION

COMMUNITY CONSULTATION AND ENGAGEMENT

Consultation and engagement with the community and neighbouring properties was undertaken to inform proposed concept designs and technical assessments.

The following activities have happened (in date order):

- Meetings and site visits with owners of land that are crossed by a new pipeline that needs to be constructed between the MWWTP and the irrigation area were undertaken in early February 2026. This process resulted in a new pipeline route being agreed in principle with the land owners.
- Two separate briefing sessions for property owners within the vicinity of the land north of Pain Farm in mid-February 2026. A walkover of the site was also arranged and attended by several landowners. Notes of the meetings along with a MWWTP Stage 2 improvements Fact Sheet (which included an amended concept design drawing (refer below to Design Changes) (provided as Appendix 1) was issued to attendees by end of February. Feedback was also provided back directly to land owners who had questions and included follow up telephone discussions and meetings. The information collected during this stage informed the preparation of the project website engagement material.
- All landowners who were close to the proposed irrigation area and who had not attended the briefing sessions were written to and offered meetings. The letters sent included the Fact Sheet (and concept design drawing) (refer Appendix 1).
- The project website was launched on 6 March 2026 and posters with project information was posted in Martinborough Library and P&K Four Square. The website and posters invited feedback to the following questions by 31 March 2026:

- We propose to use the same measures at this site to irrigate treated wastewater to land as in use in Greytown and Martinborough. Do you have any concerns or suggestions about using this same approach?
- Treated wastewater is currently discharged to the Ruamāhanga River. How do you feel about moving away from this?
- What are your thoughts about the proposed concept design?
- One of the outcomes of this work would enable growth for Martinborough – do you support this?

OUTCOMES OF CONSULTATION AND ENGAGEMENT WITH THE COMMUNITY

The project email address received 18 submissions responses. In addition, several residents who live close to the proposed irrigation area have requested supply of information. In total 24 requests for information (mostly via the LGOIMA) were received from 10 parties over the engagement period. The issues raised can be summarised thematically, as follows:

a) Alternative land purchase

Due process concerns around Council's decision to purchase alterative land north of Pain Farm for treated wastewater land irrigation. These questions related to cost, community consultation, due diligence, suitability and difference from Pain Farm.

b) Adverse environmental effects

Matters such as potential spray drift beyond the property boundary, potential groundwater effects, odour, additional traffic movements and related dust nuisance, proximity of storage ponds to properties and associated increases in insect and animal pests, suitability of onsite drainage, and the impact of high winds were raised.

c) Alternative methods

Concern that Council has not reassessed alternative methods for managing treated wastewater from the MWWTP, nor reconsidered alternative land locations for discharge.

d) Receiving environment

It was noted that properties surrounding the land irrigation area (located to the north of Pain Farm) would be dealing with the impacts of the activity and not receiving any material benefit from it (as they are not connected to the wastewater utility network).

e) Impact on surrounding rural residential properties

Mahaki Road residents did not want their road name associated with the activity. In response, the land is now referred to as "the land north of Pain Farm".

f) Technical reports

There was some expressed frustration regarding the absence of completed technical reports for perusal. The opinion shared was that it was difficult to be confident about the effectiveness and suitability of the irrigation design methods in the absence of definitive evidence. This is a consequence of engaging early to allow incorporation of community feedback into the proposed design.

DESIGN CHANGES IN RESPONSE TO NEW INFORMATION

The information received from the community to date has led to practical improvements to the proposed design, notably:

- adjustments to the area that is irrigated to maximise distance between residential properties and irrigation area (closest property to the irrigation area is now approximately 360m to the south)
- relocation of the treated wastewater storage area to a location that optimises distances to neighbouring properties (to north and south)
- a new planted area has been introduced along the southern and south eastern edges of the irrigation area (located between the irrigation area and residential property on Mahaki Road). Species will be selected that reinforce measures to eliminate spray drift and further reduce odours.
- new planting around storage pond, with species selected to reduce potential for odour and pest insects.
- pipeline route adjusted to minimise potential effects on farm operations.

NEXT STEPS

Consultation and engagement activity will continue up until and then following lodgement of RMA applications. The Project Team will continue to consider information provided by the community to develop the design of the project, including how management and operational practice of the irrigation area can be practicably improved.

Any further adjustments to the concept design will be carefully considered and weighed against the need to be able to efficiently and effectively manage irrigation of treated wastewater to land located to the north of Pain Farm, mindful of budget and any RMA requirement to manage actual and potential effects.

APPENDICES

Appendix 1 MWWTP Stage 2 Improvements Fact Sheet

Martinborough Wastewater Treatment Plant
Stage 2 improvements – Fact Sheet

What is Council doing regarding the Martinborough Wastewater Treatment Plant?

The following improvements to the Martinborough Wastewater Treatment Plant are planned:

1. Council is obliged under its resource consent to discharge treated wastewater to land. These improvements will eventually allow all treated wastewater to be discharged to land, apart from in exceptional circumstances, such as a significant flood event.
2. Physical improvement works are also being implemented at the Martinborough Wastewater Treatment Plant that will improve the quality standards of wastewater discharge.

What is the reason for doing this work?

In 2012, Council adopted a wastewater management strategy to gradually upgrade district facilities, and to shift from discharge to river to discharge to land. This strategy underpins the Martinborough Wastewater Treatment Plant's 2016 resource consent which requires all treated wastewater to be discharged to land by 2035 (except in exceptional circumstances).

The planned work will help ensure that the Martinborough Wastewater Treatment Plant can accommodate residential development and growth to at least 2050, and it will remove one source of pollution from the Ruamāhanga River.

The 2016 resource consents authorised irrigation of treated wastewater to Pain Farm. However, this is no longer a viable option (see below) and now the Council is investigating irrigation of treated wastewater to land to the west of Pain Farm. This will require a change to the 2016 resource consents, which specifically refer to Pain Farm, and new consents to authorise irrigation at the new site will be needed.

What exactly is being proposed?

1. The existing wastewater treatment plant receiving wastewater from Martinborough will be upgraded so that the treatment in the plant includes inlet screens for large object removal, bioreactor tanks for nitrogen removal, and a more powerful UV unit for improved disinfection.
2. A pressurised pipe will be laid from the plant, and the tertiary treated effluent will be pumped along this pipeline to a lined storage pond on the new site. The liner is likely to be ultraviolet resistant high density polyethylene over geotextile cushioning layer, with welded and tested seams to avoid leaks and be suitable for varying water level.
3. The effluent will be irrigated to the surrounding land when the soil is sufficiently dry for the plants on the land to take it up.
4. The whole system, including the transfer pumps, will be electronically controlled and monitored to ensure automatic shut down under high wind, low pond level or high soil moisture circumstances.

Why are you no longer proposing irrigate treated wastewater to land at Pain Farm?

Given community concerns about the intent of the original bequest of Pain Farm, the Council decided to pursue an alternative option and has been investigating irrigation of treated wastewater to another site nearby.

Is the proposed new site a good location to irrigate treated wastewater to land?

Yes. It is a slightly closer to the Martinborough Wastewater Treatment Plant than Pain Farm. Importantly, it also has features that make it better suited to accommodate treated wastewater. For example, as compared to Pain Farm, Kellys Stream does not run through the property (it is located on the eastern boundary), a large part of the land proposed to be irrigated drains westwards, away from Kellys Stream and the presence of tile drains as well as a clay pan in this area prevent treated wastewater getting into the underlying groundwater aquifer.

Additionally, the new site is sufficiently elevated to be above the floodplain.

What is the proposed irrigation method?

A draft concept design is provided below, at the end of this document.

- Irrigation at a rate where the water will infiltrate the surface and be held in the soil where water and nutrients will be taken up by grass. Photographs of potential irrigation devices are provided below.
- Any excess water will drain through the soil (being cleaned as it goes) and will be collected by drains under the turf and carried to soakage basins. These basins further clean the treated water and allow evaporation and soakage of remaining cleaned water to ground.
- To ensure that the tile drains work well, they will be checked and repaired as necessary. A new tile drain will also be installed in the northern section of the site.
- No treated wastewater will enter groundwater – the underlying clay pan in the soil profile and tile drains prevent this from happening. Any very small amount of drainage from the soakage basins will also be intercepted by the existing tile drain network to the northwest of the Site.
- Site and design include a storage pond to buffer supply of treated wastewater from the oxidation ponds and irrigation. There is space for additional storage to be developed in the future. This means that discharging treated wastewater to the Ruamāhanga River will eventually be able to stop (except, if necessary, in high water / flood events).
- The operation at the new site can be scaled to meet requirements, which means it will be suitable for Martinborough's projected growth to 2050.

We will monitor both the volume and quality of any water discharged from the tile drains and the performance of the soakage basins. This data will allow us to modify how much and when we discharge treated wastewater to optimise land treatment at the site, and to make sure things are working efficiently. This monitoring work informs any need to improve performance or, overtime, capacity considerations. This will be possible because our current calculations show that we need 38 hectares to irrigate treated wastewater to land and the total site is 74 hectares in size. Alternatively, or as well as, we can build bigger storage ponds, and/or larger soakage basins.

Properties in the surrounding area to new site can expect that:

We will use the following methods to manage potential residential amenity (odour and spray drift) effect:

- No discharges within 25 metres of any boundary (in practice we will be set back much further from the southern and eastern boundaries).
- Irrigation nozzle heights will be a maximum of 1.52 metres above ground level and the centre pivots will not incorporate an 'end gun'.
- Irrigate at low pressure, and medium water droplet size.
- Irrigation will stop when wind speeds exceed 12 metres per second (or 7.5 metres per second sustained for a period of 15 minutes) towards a residential property within 300 metres of the site.
- The treated wastewater must have median E.coli concentration of less than 100cfu/100ml.
- Monitoring of odour at the boundary of the site.
- Shelter trees will be planted along the south-west site boundary (as shown on the draft concept design below). .

Our expectations are:

- No odour at or beyond the boundary. This is a condition of the current 2016 consent and there are no records of this not having been met. There will be an Odour Management Plan.
- No spray drift (because of wind speed cut-offs and droplet size) beyond the boundary.
- The irrigation method could be by a central pivot irrigator or another method such as solid set irrigators – this is yet to be decided.

We will have clear odour and spray drift monitoring and complaint processes. In the unlikely event they were to become a problem, the system will be flexible to enable changes, including adjusting where irrigation occurs, wind speeds and direction, and planting.

How and when did the new site become an option for treated wastewater land irrigation?

In 2025, the landowner approached the Council and asked if there was interest in acquiring a part of the farm. The Council undertook a due diligence to determine whether the land could accommodate treated wastewater in the manner planned for Pain Farm. The land is closest land to the Martinborough Wastewater Treatment Plant that is located outside of the floodplain, is suitably distant from and down-hill of the Martinborough urban area (approximately 1km away) and does not entail a crossing of the Ruamāhanga River. Our investigations so far indicate that the land w is suitable for treated wastewater irrigation.

As these investigations were positive, the Council continued with the land purchase and in parallel undertook further site investigations.

Subsequently, in August 2025, the owner's property was subdivided into 8 lots, with Lots 1 (72.6ha) and 12 (1.42ha) offered to the Council. In early February 2026, title for the new irrigation site was issued and the land purchase was completed.

What investigations have you undertaken to assess the site?

Our investigations at the site have considered the climate, hydrology, groundwater and soil as well as flooding and ecology. The groundwater and soil profile and can be summarised, as follows:

- Soil samples have been taken and analysed in laboratories to determine the volume of treated wastewater that can be held in the soil (this determines the potential volume able to be discharged).
- The amount of treated wastewater that can be discharged at any point in time will depend on the soil moisture content. This is because the soil can only hold so much moisture before it starts to percolate through the soil. We want to discharge treated wastewater at a rate that means that it is held in the soil so that plant roots can take up the nutrients.
- We have modelled rainfall at 2050 allowing for climate change so that we can estimate how often and how much we can discharge to the soil. Calculations show that based on what the soil can accommodate (per square metre), to meet the estimated volume of treated wastewater at 2050, we need an irrigation area of 38 hectares.
- Soil profiles show that there is an underlying impermeable clay pan at depths of between 350mm - 1200mm below ground level. Water that percolates through the overlying layers is prevented from going deeper to the underlying groundwater aquifer by this pan. Tile drains were installed in the 1960s prevent waterlogging caused by the clay pan and to drain any excess water. The tile drains will be upgraded and discharge into planted soakage basins (that we will construct), where water will soak into ground to be taken up by plants and / or evaporate. Any water that infiltrates these basins will be stored in the surrounding soil where it will be affected by the same processes as within the disposal field. In exceptional circumstances, water may discharged through the existing tile drain network between the boundary of the Site and the stream drain to the northwest. In either case, there will be no effect on groundwater.

Resource Management Act 1991 process

Applications to authorise the discharge by means of irrigation of treated wastewater to land is planned to be lodged later this year. These consent applications are in addition to the held Martinborough Wastewater Treatment Plant consents (WAR120258 [31707, 32044, 32045, 33045]).

Example irrigation systems

Draft concept design - irrigation area and pipeline route