

Recovered Water Management Solution Working Group

3 February 2026



Welcome

Tēnā koutou katoa
Karakia

Agenda

- Welcome / Opening
- Apologies
- Agenda
- Confirmation of Previous Minutes
- Actions from Previous Meeting
- Confirmation of Mātauranga Māori Specialist
- Presentation of Previously Explored Solutions
- Submissions Received So Far and Future Process
- Questions / Pātai

Confirmation of Minutes and Update on Action Points

Does the Working Group accept the previous minutes of the Working Group meeting held on Thursday, 18th December 2025, to be a true and accurate record?

Action Point	Responsible	Status
Prepare updated Terms of Reference for Council approval, with the Working Group to be notified of progress	Stefanie Barker	PENDING ToR update draft completed. Council report written for meeting 18th February
A report with updated small streams and nutrient discharges, clarifying nutrient limits and known loads encompassing around 10 years of data, with the inclusion of historical data as comparison	Bay of Plenty Regional Council Presenters	UPDATE REQUIRED BOPRC
Draft an engagement plan for members to review	RLC Project Team	COMPLETE Distributed to WG prior to meeting
Key Partners are brought into the process and obtain their views	RLC Project Team	PENDING Mātauranga Māori specialist confirmed, presenting at the March WG meeting

Mātauranga Māori Specialist

- *Name:* Te Rerekohu Awerangi Tuterangiwhiu
- *Role:* To Provide mātauranga expertise to the Working Group as required
- Te Rerekohu will present at the March meeting and provide ongoing assistance as required.
- Further background information, including a bio and qualifications, will be circulated shortly.

Previously Explored Solutions

A range of options and sites have previously been explored. 2013 Environment Court directive to investigate alternatives to the discharge to the LTS in Whakarewarewa Forest RPSC was formed to consider treatment and discharge options:

- preferred treatment option to upgrade the WWTP was discussed in a previous meeting and will be completed later this year
- the preferred discharge option was through a land contact bed to Te Arikiroa channel - consent application was placed in hold

Following this, additional potential sites in the forest and within the catchment were identified.



RPSC Shortlisted Discharge Concepts

A longlist of treatment processes, add-on technologies, and discharge concepts was developed and filtered to a shortlist of discharge concepts for returning recovered water to the environment within the Lake Rotorua catchment:

- Discharge to land
- Direct discharge to water
- Indirect discharge to water (e.g. wetland, rapid infiltration beds, riparia gabions, monitoring pond)

These concepts informed the subsequent development of potential options. As any discharge would occur within the Lake Rotorua catchment, the water will ultimately make its way to Lake Rotorua.

RPSC Shortlisted Discharge Options

- ☐ Discharge to land
- ☐ Discharge to Puarenga Stream after Land Contact
- ☐ Direct discharges to water – shoreline and deep lake outfall
- ☐ Discharge to a Land Contact Bed and Te Arikiroa Channel (RPSC preferred option)

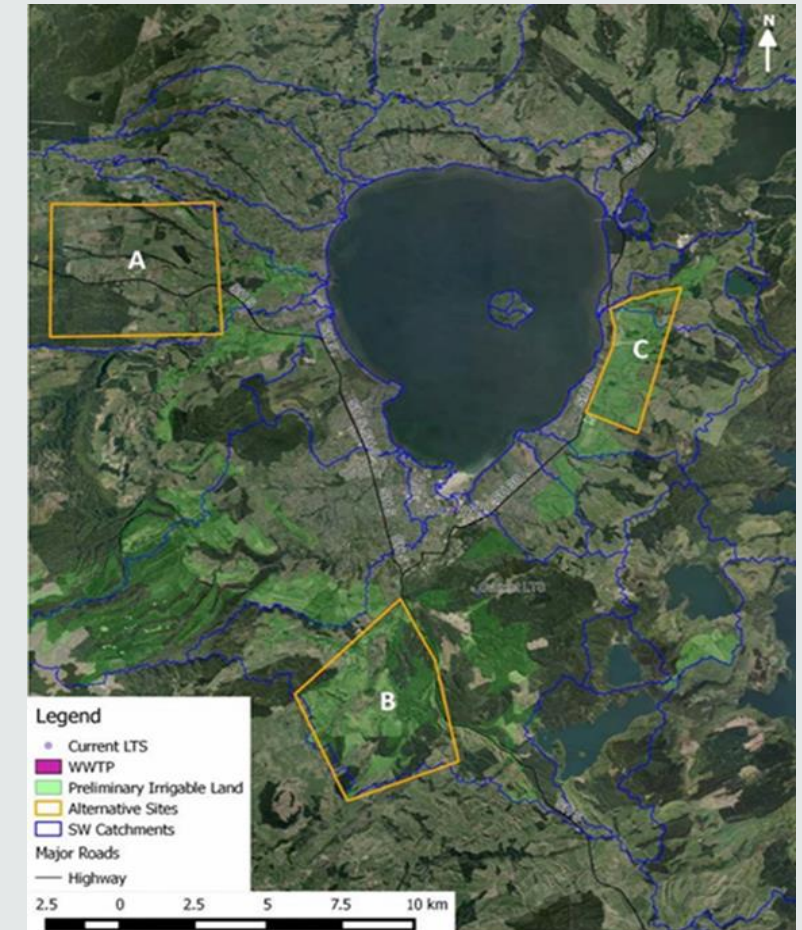
Discharge to Land

A constraints mapping exercise to identify contiguous land:

- Approx 500 ha for slow-rate irrigation at 5mm/day
- Approx 150 ha for rapid irrigation at 20 mm/day

Parameter	Limit/Constraint
Slope	< 20°
Soil	Well to moderately drained
Flood return	1:20 FRI, landward SH30
Rivers and streams	Flood class 1 to 3 (< 1:20 FRI)
Distance WWTP	Within 10 km of WWTP
Urban areas	Exclude

Three parcels identified as potentially suitable.



Discharge to Land

Indicative capex (2015) \$70-110 M for slow rate irrigation and \$38-60 M for rapid irrigation.

The option was “parked” by RPSC and not pursued further because of prohibitive cost and would be difficult to secure the use of the large land areas.

The discussion turned to rapid infiltration and options requiring less land.

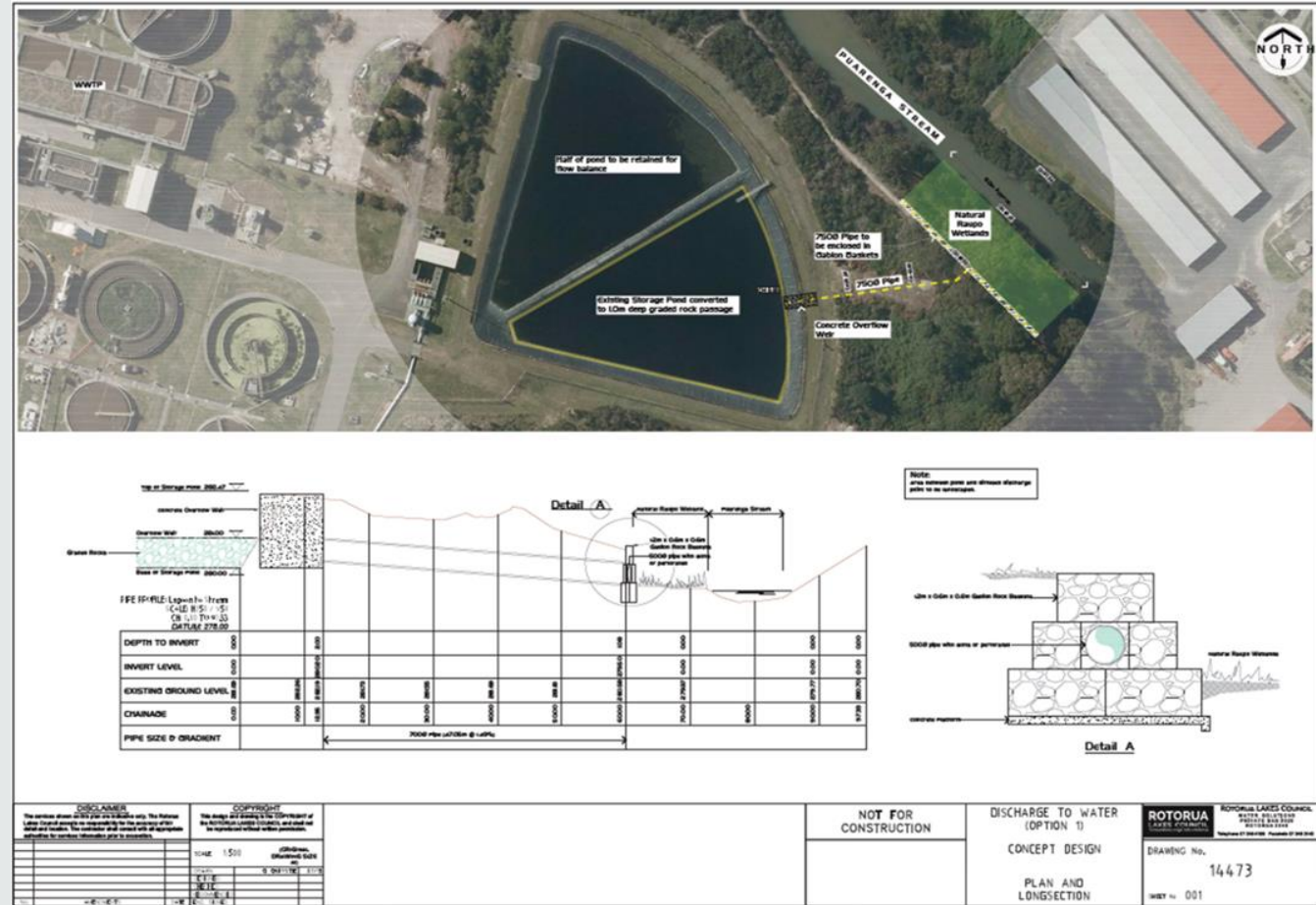
Area & Option	Loading Rate (mm/day)	Land Area Including Buffer Zones (ha)	CAPEX (\$M)	OPEX (\$M/Yr)	NPV (\$M)	Key Risks
Area A (Option 5)	5	600	106.90	3.11	154.26	Geotechnically challenging and ability to consent the activity
	20	150	59.91	2.62	105.33	
Area B (Option 5)	5	600	70.44	2.45	110.47	High number of streams, hilly, complex irrigation arrangement and ability to consent the activity
	20	150	38.08	1.96	73.24	
Area C (Option 5)	5	600	77.83	1.42	94.12	Sandy soils, proximity to Lake Rotorua, likely to have relatively high land value and ability to consent the activity
	20	150	37.52	0.97	51.58	

To Puarenga Stream After Land Contact

Discharge through riparian gabions to the adjacent Puarenga Stream.

Did not proceed because of significant cultural impacts to local iwi.

Instead recommended further consideration of either a piped discharge to Lake Rotorua or discharge via the Te Arikioa Thermal Channel.



Direct Discharge to Water – Shoreline

Piped to a shoreline discharge location:

- Site 2: Te Arikiroa thermal channel
- Sites 4&5: Out from Vaughans Rd
- Sites 1&3: Puarenga Stream (after land contact)



Direct Discharge to Water – Deep lake

Piped to a deep lake outfall location.

Decision to not proceed with any direct discharge options was guided by Te Arawa Lakes Trust members on the RPSC.

Decision was made following discussions about installing a land contact and cascade system at the wastewater treatment plant site prior to a discharge to the adjacent areas of Lake Rotorua.

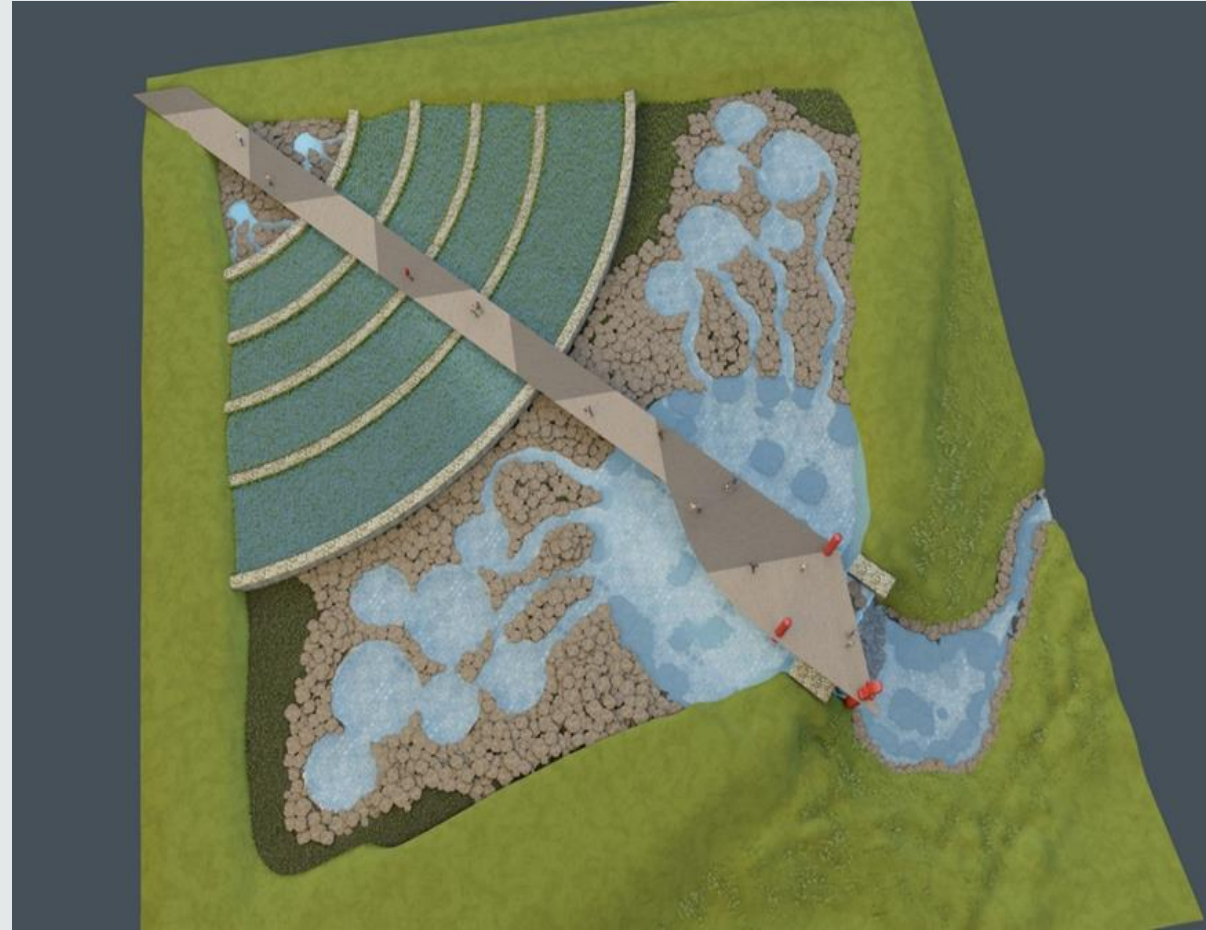


Discharge Through a Land Contact Bed to Te Arikiroa Channel

The land contact bed incorporated Mātauranga and Mātapono Māori.

Water would flow through constructed wetland sections with upwelling through local soils, before the outflow cascaded into a natural-looking channel, bunded on the eastern side to prevent flow across the sulphur flats to the Puarenga Stream.

This became the preferred, or “least disliked” option, however it was not unanimously supported.



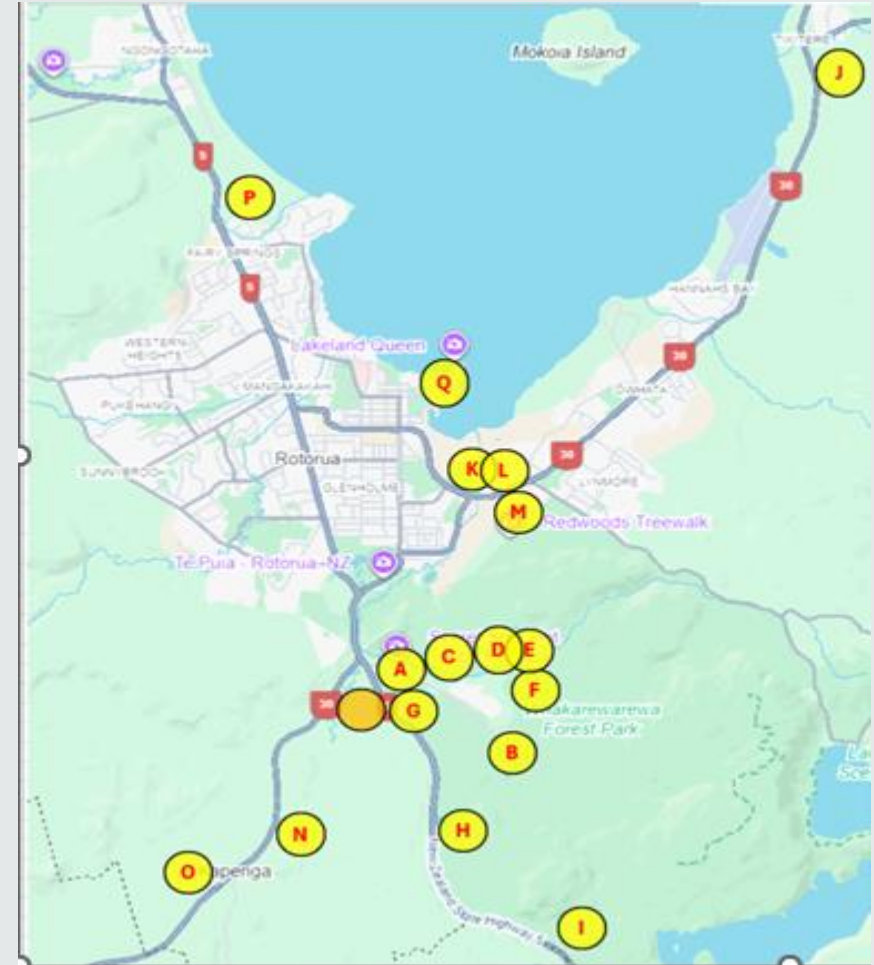
Potential Sites

Potential sites for a wetland discharge were identified in the forest.

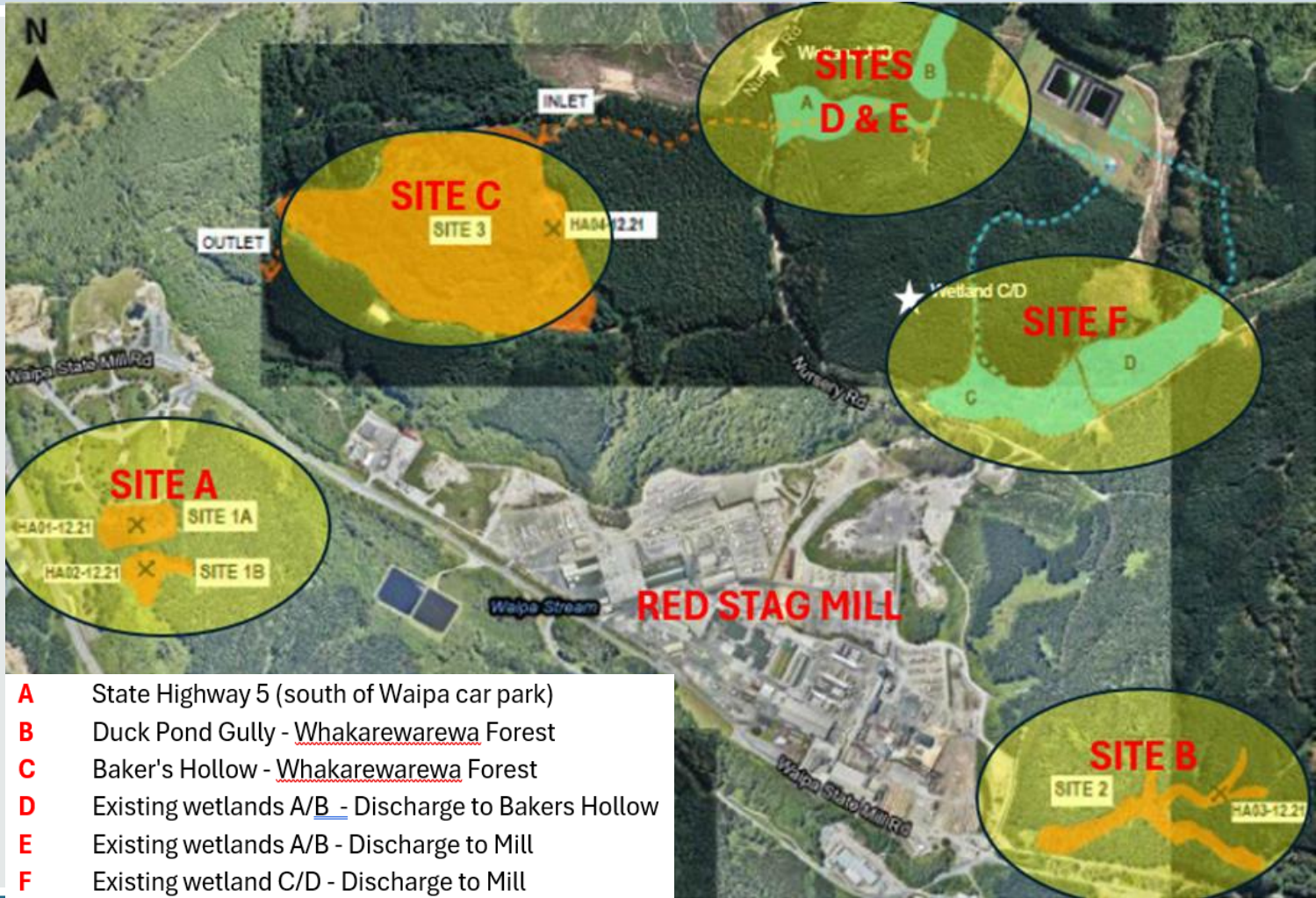
This was followed by a search for additional potential sites within the catchment.

A land parcel review was carried out with the following criteria: proximity; size location and land use; slope; soil and accessibility. These were initial high-level potential site considerations and at this stage there may not have been landowner engagement, discussions, or agreements.

Sites A to Q were identified as being potentially suitable.



Potential Forest Sites - Location



Potential Forest Sites - Evaluation

SFA Site Selection Evaluation

01.11.22

Criteria	Weighting	Site						Additional Sites Oct 2022			Consideration (for each criterion / constraint)
		1 - SH5	2 - Duck Pond Gully	3 - Bakers Hollow	4 - Wetland A/B (Bakers Discharge)	4 - Wetland A/B (Mill Discharge)	5 - Wetland C/D (Mill discharge)	Site 1/10.22	Site 2/10.22	Site 3/10.22	
Location	1	2	4	5	5	4	4	2	3	2	Location/availability in general cadastral boundaries, ownership, caveats, land use etc.
Groundwater	1.5	6	3	7.5	6	3	1.5	6	6	6	Flow direction, down gradient development and effects
Surface water	1	3	2	4	4	2	2	2	1	1	Flooding potential, dry and wet watercourses, water quality/ecology effects inc. wetlands.
Geotechnical	1	3	2	3	3	1	1	2	2	2	Slope instability settlement, erosion, channel formation etc.
Anticipated infiltration	2	4	2	10	8	8	6	2	2	2	Permeability of soils under the wetland and down gradient, depth to groundwater
Māori Cultural	1	3	3	3	3	3	3	3	3	3	Sites of special significance, any archaeological, other
Constructability factors	1	2	2	5	4	2	2	2	1	1	Requirements, difficulties, ease of construction and operation
Infrastructure	1	1	2	4	5	2	2	1	1	1	Connection from WWTP, LTS storage basins, relative costs
Potential downgradient effects	2	6	6	8	8	4	2	6	6	6	Land use, infrastructure (flooding) - both actual and perceived
Recreation considerations	0.5	1.5	1.5	2	2	2	2	1.5	0.5	0.5	Existence of recreation areas now and planned
TOTAL (out of 5)		2.6	2.3	4.3	4.0	2.6	2.1	2.3	2.1	2.0	

Key

1 Fatal ecology flaw

2 Potential fatal ecology flaw

Note - Additional Oct.2022 site assessment is high level

A State Highway 5 (south of Waipa car park)

B Duck Pond Gully - Whakarewarewa Forest

C Baker's Hollow - Whakarewarewa Forest

D Existing wetlands A/B - Discharge to Bakers Hollow

E Existing wetlands A/B - Discharge to Mill

F Existing wetland C/D - Discharge to Mill

G SH5 site adjacent to Kauaka River

H SH5 site - Existing Wetland

I Wetland at Awa Ohineuia

Potential Forest Sites - Outcome

Bakers Hollow and Wetland A/B with a discharge to Bakers Hollow, appeared to have the least constraints:

- Close to existing RLC Land Treatment System storage pond infrastructure therefore lower construction and operation costs
- Should be the easiest to construct
- Likely to have favourable ground conditions for soakage

There was opposition by some landowners to some of the sites and it was suggested that other site options need to be considered - wider than CNI land.

Potential Additional Sites - Location



J	Rangiteaorere site
K	Disused BMX Track
L	Puarenga Park
M	Redwoods Dog Park
N	Kapenga H
O	Parekarangi A6
P	Bonnington's Farm
Q	Disused Golf Course

Potential Additional Sites - Evaluation

Note:

The scoring criteria for sites J to Q were different to those for sites A To I

Scores for sites J to Q in the table below represent the best alignment to the criteria used for sites A to I.

Site suitability is scored from 1 to 5, with 1 being 'least suitable' and 5 being 'most suitable'

Criteria Used For SFA Investigations	Weighting	Site							
		J	K	L	M	N	O	P	Q
		Rangiteaorere	BMX Track	Puarenga Park	Dog Park	Kapenga H	Parekarangi A6	Bonningtons Farm	Golf Course Site
Location	1								
Groundwater	1.5								
Surface water	1	2	8	8	8	5	5	2	5
Geotechnical	1	8	8	8	8	2	2	5	8
Anticipated infiltration	2	6.8	6.8	5.0	8.0	3.7	3.7	6.8	5.0
Māori Cultural	1								
Constructability factors	1	5	5	5	8	2	2	5	5
Infrastructure	1	2	8	8	8	2	2	2	5
Potential downgradient effects	2	5	5	5	8	2	2	5	5
Recreation considerations	0.5								
TOTAL (out of 5)		2.1	3.3	3.2	4.0	1.3	1.3	1.9	2.7

Further Information

Further information is available for the discharge options and additional potential sites.

Submission Platform Overview

- The platform for public submissions is now live
- Open until 16 March
- Three submissions have been received to date* and a full report outlining these has been supplied
- Opportunity for Working Group members to discuss and decide how they want the information to be formatted for evaluation

* Up to 28 January 2026

Submissions Received

- Submissions received to date include;
 - *Requirement for local industries to utilise recovered water or pay for any clean water they use* – Further information may be required / insufficient information to assess
 - *Remove all the recovered water from the Whakarewarewa Forest, RLC to purchase land and pump water there* – Further information may be required / insufficient information to assess
 - *No wastewater in lake, communicate with landowners who may be interested receiving the water on their land* - Further information may be required / insufficient information to assess

Pātai / Questions

Kōrero

Wrap up and Karakia

Next Meeting: Tuesday, 10th March 2026,
at 1:30pm – 4:30pm



Ngā mihi nui ki a koutou

Thank you for your time