9 September 2025 Document number: 10001-062-1

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Dear Fiona

Re: APP-2006012018.02 - Response to s92(1) Request for Further Information

Thank you for your letter of 1 May 2025 requesting further information under section 92(1) of the Resource Management Act 1991 (RMA). This letter responds to each item in your request, with supporting datasets provided as attachments in Excel format. For ease of reference, the Council's questions are shown in *italics*, with our responses provided beneath.

Monitoring datasets

1. *Please provide the following datasets in Excel format to support the assessment of effects*
   a. *Raw water quality data;*
   b. *Treated effluent quality data,*
   c. *Periphyton monitoring data,*
   d. *Macroinvertebrate monitoring data.*

- **Raw [river] water quality data**
  Monthly data (April 2013 to July 2025) for Whangaehu River upstream and downstream of the discharge, analysed by an IANZ-accredited laboratory as required by Discharge Permit 103909:
  - 10001 - Data - 103909 Water Quality - Monthly Data.
- **Treated effluent quality data**
  Monthly data (April 2013 to July 2025) for treated effluent discharged to Whangaehu River, analysed by an IANZ-accredited laboratory, and daily in-house measurements (April 2014 to September 2024) both as required by Discharge Permit 103909:
  - 10001 - Data - 103909 Water Quality - Monthly Data
  - 10001 - Data - 103909 Water Quality - Daily Data.
- **Periphyton monitoring data**
  Biomass, cover and community composition obtained from four ecological surveys undertaken between 2020 and 2024 and biomass data from six sewage fungus surveys since 2012:
  - 10001 - Data - Whangaehu Ecology - Periphyton Biomass
  - 10001 - Data - Whangaehu Ecology - Periphyton Cover
  - 10001 - Data - Whangaehu Ecology - Periphyton Community
- **Macroinvertebrate monitoring data**
  Taxon-level abundance data from the ecological monitoring surveys undertaken from 2020 to 2024:
  - 10001 - Data - Whangaehu Ecology - Invertebrates

In the supplied Excel files, values below the laboratory detection limit have been replaced with half the detection limit (as is standard practice) and are highlighted in red text for ease of reference.

Colour and clarity – s107(1)(d)

2. *Given past compliance history, particularly relating to water clarity, please provide an assessment of how the continued operation under the existing system and operating conditions will avoid the discharge giving rise to any conspicuous change in colour or visual clarity, as prohibited by section 107(1)(d) of the RMA 1991.*

Under the proposed consent renewal, operations could occur under one of two scenarios:

a) Recommencement of a pulp mill operation on site; or

b) Establishment of a new industrial activity on site.

In both scenarios, no discharge will occur until the operator can demonstrate to Horizons Regional Council (Horizons) that the discharge will comply with all relevant consent conditions, including those relating to the visual effects of the discharge. To provide a clear and enforceable mechanism for ensuring this, WPI is proposing to include a new condition of consent. This condition would require any future owner or operator to submit a Pre-Discharge Operational Compliance Report to Horizons prior to any discharge occurring. This report would be prepared by a suitably qualified and experienced person and include:

- A detailed description of the proposed operation (where it departs from that originally consented).
- Identification of the sources and nature of the discharge.
- The treatment systems to be used.
- An assessment of how the discharge will comply with the consent limits and the requirements of section 107(1)(d).

Proposed wording for the new consent condition is:

"*At least two months prior to the recommencing a treated wastewater discharge to the Whangaehu River, the Consent Holder must provide a Pre-Discharge Operational Compliance Report ("**Pre-discharge Report**") to the Council confirming that the discharge will comply with the conditions on this consent and section 107(1)(d) of the Resource Management Act 1991 ("**RMA**"). The Pre-discharge Report must:*

- *Be prepared by a suitably qualified and experienced person;*
- *Provide a detailed description of the discharge;*
- *Describe how the wastewater will be treated to ensure that the discharge will comply with the conditions of this consent and section 107(1)(d) of the RMA.*"

This condition will assist in ensuring that the Whangaehu River is protected from conspicuous changes in colour or clarity, regardless of the nature of the activity that ultimately proceeds. This condition would supersede the advice note proposed in Section 4.2.1 of the original assessment of environmental effects (AEE) report (Viridis 2025).

Providing this information to Council prior to the recommencement of a treated wastewater discharge to the Whangaehu River provides assurance that compliance with section 107(1)(d) will be achieved under future operational scenarios.

Sediment-related effects

3. *Please provide an assessment of the actual and potential effects of the discharge in relation to sediment (including fine suspended and deposited material), with specific reference to*

    a. *The known vulnerability of the Whangaehu River estuary to sedimentation and muddiness (Robertson & Stevens, 2016); and*

    b. *How the discharge may contribute to cumulative sediment-related impacts in downstream environments.*

Sediments within in the treated effluent are predominantly organic wood fibres generated from the pulp and paper process. These solids are typically discharged in a fine, dispersed form. In the high-energy Whangaehu River, with a long-term mean daily flow of 4,084 L/s (Horizons 2024), most of this material remains in suspension and is transported downstream. Where fibres do settle in low-velocity areas, they are subject to regular scour during normal flow conditions. Because the solids are primarily organic and biodegradable, they break down naturally over time and are less likely to cause the persistent sediment accumulation and muddiness issues that threaten the estuary.

Compliance with the existing total suspended solids (TSS) load limit of 2,200 kg/day (ensured via the proposed condition detailed in response to Query 2 above) will manage cumulative sediment-related impacts. When placed in context of existing sediment delivery to the Whangaehu estuary, estimated by Robertson & Stevens (2016) to be 1,160 kt/yr, the contribution from this discharge is negligible (<0.1%). The outfall is located many kilometres upstream of the estuary, and over this distance the organic solids are diluted by mean river flows (>4,000 L/s) and remain in suspension or progressively degrade. Where temporary deposition occurs, material is readily re-mobilised during normal flow events. Consequently, the discharge does not materially contribute to cumulative sedimentation effects in the estuary.

Downstream habitat surveys conducted under the current consent show no evidence of persistent sediment accumulation attributable to the discharge. As detailed in the Whangaehu River Ecology Report (refer Appendix D of the AEE), substrate composition and macroinvertebrate habitat at sites situated downstream remain consistent with upstream reference conditions. Fine sediment presence remains comparable between sites, indicating that the discharge is not contributing to additional sediment deposition or downstream habitat degradation.

The Whangaehu estuary is recognised as sensitive to sedimentation and muddiness; however, the treated effluent contributes only a small load of fine, predominantly organic fibres that are readily biodegradable. The discharge is located many kilometres upstream from the estuary, and over this distance, the solids are subject to dilution, dispersion and progressive breakdown. As a result, only a very small fraction of the original load would be expected to reach the estuary, and this contribution is negligible compared to natural sediment inputs. Compliance with the consent's TSS load limit provides further assurance that potential effects are managed, and the discharge is not expected to materially increase cumulative sediment stress.

Effects during periods of improved upstream water quality

4. *Please assess the potential effects of the discharge during periods when stream water quality in the river is elevated (i.e., periods with reduced volcanic influence). This assessment should consider:*

    a. *Temporal variability in water quality driven by fluctuating crater lake, rainfall, and groundwater inputs,*

    b. *The function of the mainstem river as a migratory pathway to tributaries with more favourable water quality conditions during these periods; and*

    c. *Whether the current assessment of effects, based on median upstream values, adequately captures potential adverse effects during these higher quality conditions.*

Temporal variability in water quality is evident in the Whangaehu River due to fluctuating inputs from the crater lake, rainfall, and groundwater. However, periods of improved conditions are infrequent and rarely sustained. Based on WPI's measured in-river data, between April 2013 and September 2024, upstream pH values were within the range considered suitable for fish health (6.5-9.0; NIWA 2013) on only seven occasions (~5% of samples). TSS exceeded the ANZG (2018) guideline[1] of 11.8 g/m^3 for approximately 70% of the monitoring period, and metals and nutrients concentrations commonly exceeded One Plan (Horizons 2025), ANZG (2018) or NPS-FM (MfE 2024) thresholds. Furthermore, improved conditions rarely coincided. Of the seven occasions with suitable pH measurements, five coincided with exceedances of ANZG default guideline values (DGVs) for TSS, three for total phosphorus, and all with poor horizontal visibility (<0.5 m). These data points have been highlighted in green in the attached excel file titled '*10001 - Data - 103909 Water Quality - Monthly Data*'. This demonstrates that even when individual parameters improve, the mainstem seldom provides genuinely favourable conditions for aquatic life.

The limited frequency and coincidence of improved conditions upstream suggests that opportunities for significant migration to tributaries with more favourable water quality remain highly limited. The only recorded fish presence in the upper catchment occurred about 10 km downstream of the discharge, near the confluence with the Tokiahuru Stream, where river acidity is significantly diluted. Even at this location, only a single dead specimen was reported (Chisnall & Keys 2002), with its presence considered incidental and a result of displacement from a non-acidic tributary during freshes. While possible, no evidence exists for sustainable fish passage or resident populations in the upper Whangaehu. Tributaries may provide refugia, but the mainstem seldom sustains conditions conducive to extended or unimpeded passage.

Notwithstanding the above, to test whether median-based upstream values adequately captured effects (Query 4c), the discharge model was re-run using the 25th percentile of upstream water quality as a proxy for improved baseline conditions (presented in Table 1). It should be noted that the model already incorporates 7-day mean annual low flow (MALF) conditions for the receiving water, as well as the maximum allowable discharge rate. The likelihood of these extremes coinciding with a period of improved upstream water quality is very low, meaning the assessment is inherently conservative.

[1] A physical and chemical stressor default guideline value, based on the 80th percentile of minimally impacted reference site data for a river environment classification (REC) of cool wet mountain.

Table 1. Modelled assessment of downstream Whangaehu River water quality under improved and current upstream water quality scenarios.

Parameter	'Improved' baseline scenario		Median baseline scenario (reported in AEE)	
	Upstream water quality	Downstream water quality[1]	Upstream water quality	Downstream water quality[2]
pH (unitless)	4.4	-	2.8	2.9
Un-ionised hydrogen sulphide*	<0.002	2.1	0.013	2.1
Volatile suspended solids	<3	<3	<3	8
Total suspended solids	10	19	18	27
Soluble $cBOD_5$ (g O_2/m^3)	<2	3.4	<2	3.4
Total $cBOD_5$ (g O_2/m^3)	<2	4.6	<2	4.6
Ammoniacal nitrogen	0.027	0.026	0.073	0.086
Nitrate nitrogen	0.041	0.04	0.043	0.047
Soluble inorganic nitrogen	0.055	0.24	0.11	0.30
Total nitrogen	0.12	0.12	0.2	0.4
Dissolved reactive phosphorus	<0.004	0.08	0.044	0.12
Total phosphorus	0.019	0.019	0.059	0.11
Escherichia coli (cfu/100 mL)	<1	≤260	<1	≤260
Aluminum	11.9	12	26	25
Arsenic**	0.0013	0.0012	0.007	0.0062
Boron	0.15	0.14	0.4	0.4
Cadmium	0.00021	0.00021	0.0005	0.0005
Chromium***	0.0041	0.004	0.02	0.019
Copper	0.011	0.011	0.02	0.019
Lead	0.00011	0.00011	0.003	0.003
Manganese	0.3	0.3	0.40	0.43
Nickel	0.0097	0.0094	0.013	0.012
Zinc	0.037	0.036	0.057	0.061

Notes: Units in g/m^3 unless stated; metal and metalloid concentrations are in the dissolved fraction; [1] modelled downstream water quality; [2] modelled and measured downstream water quality as outlined in the AEE; NPS-FM Attribute Band A is shaded light green, Attribute Band B is shaded light blue, Attribute Band D is shaded light red; exceedances of a One Plan value or an ANZG DGV (or both) are shown in red text. Refer to Table 3 of the AEE for the guideline values considered in this assessment; *un-ionised hydrogen sulphide, measured as [S]; *** as arsenic (III); **** hexavalent.

Results show that:

- At an 'improved' upstream pH of 4.4, the discharge - being slightly basic (median 8.4) - would raise pH towards a more circumneutral range, potentially improving rather than degrading suitability for aquatic communities.
- New exceedances were observed for un-ionised hydrogen sulphide, TSS, soluble inorganic nitrogen and dissolved reactive phosphorus. While the magnitude of these exceedances varied, they occurred only under a highly conservative combination of assumptions (i.e., MALF, a maximum discharge rate, and low-percentile upstream quality) that are very unlikely to coincide in practice.
- For soluble five-day carbonaceous biochemical oxygen demand ($cBOD_5$) downstream concentrations remained elevated relative to upstream, exceeding the One Plan guideline, consistent with the results of median modelling.
- For all other parameters, guideline exceedances were either already present upstream (e.g., most nutrients and metals) or continued to comply with guidance, indicating that breaches are primarily driven by the baseline river condition rather than the discharge.

From an ecological perspective, no new adverse effects are expected: the discharge does not materially reduce opportunities for aquatic passage or habitat use during the rare periods of improved upstream quality, nor does it create sustained or large departures from guidance values. Accordingly, while exceedances remain possible under this conservative scenario, they occur only under an improbable alignment of conservative assumptions. This confirms that the original median-based assessment (Section 6.4.1 of the AEE) remains the most appropriate representation of potential effects.

Additional degradation where upstream values exceed guidelines

5. *Please assess the extent to which the discharge may further degrade water quality parameters that already exceed relevant targets or default guideline values (DGVs) upstream of the discharge. This should include consideration of*

    a. *Whether additional degradation may increase ecological risk;*

    b. *The potential for increased exceedance of toxicity thresholds or guidelines, and*

    c. *Implications for the ability of the waterbody to achieve relevant water quality objectives or outcomes over time.*

It is important to note that while there may be a change between upstream and downstream water quality as a result of the treated wastewater discharge (described in detail below), any change will not be greater than that already allowed for under the existing consent. This is because, aside from the amendments described in the response to Question 7 (which provide improvements), the limits are proposed to stay the same. Therefore, there will be no "*additional degradation*" compared to the existing discharge. A detailed assessment of upstream and downstream changes, which are the same as those occurring under the existing consent, is provided below.

Aquatic life in the upper Whangaehu reach is extremely limited, with only sparse macroinvertebrate communities, no aquatic flora, and negligible fish presence (as outlined in Section 2.2.4 and Appendix D of the AEE). Given this lack of sensitive ecological receptors, any increase in parameters already above guideline values would not translate to a measurable increase in ecological risk.

Where guidelines are already exceeded, median-based modelling of discharge impact (which is considered the most appropriate assessment, as justified in our response to Query 4), indicates that, with the exception of *Escherichia coli* (*E. coli*), the discharge is not expected to cause shifts between NPS-FM attribute states. For *E. coli*, modelling indicates a shift to NPS-FM Attribute band B. However, this guideline is intended for watercourses frequently used for recreation, and the Whangaehu River's naturally low acidity makes it unsuitable as a primary contact site.

For parameters exceeding ANZG or One Plan guidelines, upstream values of pH, and concentrations of nutrients and metals are already well above thresholds. Dose-response relationships indicate that once concentrations surpass levels associated with lethal or severe sublethal effects, further increases become progressively less significant in terms of ecological consequence. Accordingly, the modelled changes are unlikely to materially alter ecological risk given the already severely degraded condition and are not expected to result in new exceedances of ecological significance.

The permanent influence of the crater lake limits the potential for the Whangaehu River to achieve water quality targets over time, particularly the ANZG DGVs for 99% species protection referenced in the One Plan for the upper Whangaehu (Whau_1a) sub-area. Contributions from the discharge are small relative to the baseline condition and do not materially alter the trajectory of the river's attribute state. The discharge has not caused measurable worsening of these exceedances at the downstream site over the monitoring period.

Notwithstanding the above, it is acknowledged that "*rolling over*" the existing limits, with the exceptions noted in response to Question 7, does not improve the ability of the water body to achieve water quality outcomes or objectives as part of this consent compared to the current situation. It is for this reason that a short-term consent is being sought. Once a new use for the site is determined, and specific discharge requirements are known, a longer-term consent may be sought. At that stage, improvements would be committed to that assist in moving the water body towards achieving relevant water quality objectives or outcomes over time.

Aquatic community health and life-supporting capacity

6. *Please provide further evidence to support the conclusion that there will be "no deterioration in aquatic community health or life-supporting capacity" downstream of the discharge. This should address*
    a. *The extremely limited and dated freshwater fish records in the upper Whangaehu River;*
    b. *The limited macroinvertebrate data available upstream and downstream of the discharge point; and*
    c. *The absence of an assessment of cumulative effects on the downstream catchment and estuary, including potential impacts on biotic communities in these environments.*

As discussed in the response to Question 5, there may be a change between upstream and downstream water quality (or life supporting capacity) as a result of the treated wastewater discharge. However, aside from the proposed amendments described in the response to Question 7 (where improvements are offered), any change will not be greater than that already allowed for under the existing consent as the limits are proposed to remain the same.

The upper reaches of the Whangaehu River are naturally inhospitable to freshwater fish, which explains the '*extremely limited and dated*' fish records. Previous studies found the habitat unsuitable due to

extreme acidity, migration barriers, and distance from the coast (Kingett Mitchell 1999, 2006; Chisnall & Keys 2002; Golder 2008, 2009), and conditions have remained unchanged since those assessments. Repeated site observations over the years, including those recorded during sewage fungus and ecological monitoring or monthly water sample collection, confirm these enduring environmental constraints (refer Appendix D of AEE). The NIWA Freshwater Fish Database likewise contains no new records of fish in the mainstem upper Whangaehu River, with records confined to tributaries unaffected by crater lake discharges or to downstream reaches (refer Figure 1 and tabulated data, attached). As such, additional survey efforts would be unlikely to detect fish or change the conclusion regarding ecological risk.

Macroinvertebrate communities in the upper Whangaehu River have been assessed through four ecological surveys, undertaken annually between 2020 and 2024. These surveys covered both upstream and downstream sites, providing replicability across locations as well as years. The results, presented in Appendix D of the AEE, consistently show low diversity and abundance, with macroinvertebrate index scores at or below the NPS-FM national bottom lines, both upstream and downstream of the discharge. Periphyton is also sparse, and macrophytes are absent, reflecting the naturally constrained conditions in this reach. The consistency of these findings across multiple years and sites demonstrates that further survey efforts would be unlikely to change the conclusion that macroinvertebrate communities are inherently limited, and the discharge does not contribute to measurable deterioration in their health or life-supporting capacity.

With respect to cumulative effects, the absence of sensitive ecological receptors in this system removes a key pathway for any meaningful adverse accumulation in downstream communities or the estuary. Compliance with the consent's load limits (ensured via the proposed condition detailed in response to Query 2) further manages potential effects by preventing concentrations in the downstream environment that could lead to cumulative stresses. In addition, the dominant influence of natural volcanic inputs and wider catchment sediment sources means that the discharge's proportional contribution is negligible, reinforcing the conclusion that it does not materially add to cumulative downstream or estuarine effects.

Mana whenua engagement

7. *I note the letter of support from Te Korowai o Wainuiarua (representing Tamakana, Tamahaki and Uenuku) and the intention to continue working collaboratively with them. Is there the equivalent documentation that could be provided from Ngati Rangi? Or do you still want the proposal to be limited notified.*

Engagement with mana whenua has been ongoing. WPI has met with Ngāti Rangi on multiple occasions, including through the WPI – Ngāti Rangi environment group, and has provided further information on the application through correspondence with key representatives (refer letters, attached). Ngāti Rangi has indicated that they are considering their position on the wastewater discharge consent and that their board is expected to finalise a view shortly. While a formal position has not yet been received, the applicant will continue to engage constructively and provide any further information sought.

To support confidence in the application, WPI has also offered a set of concessions in direct correspondence with Ngāti Rangi (attached). These include:

- Reducing the maximum permitted discharge volume from 5,200 m³/day to 4,000 m³/day[2].
- Removing the ability to apply antifoam agent (up to 125 L/day) to the Whangaehu River.
- Adding a condition requiring consultation with Ngāti Rangi prior to any recommencement of discharge activity.
- Retaining the existing requirement for a technical review before any discharge recommences, to ensure compliance with consent limits.

WPI also acknowledges Ngāti Rangi's aspiration for land-based discharge and notes that a previous upgrade design included a polishing wetland to align more closely with this principle. While this upgrade is no longer feasible under current circumstances, WPI considers that a future site owner would be well placed to revisit land-based options as part of a new consent tailored to their operations. To reflect this, WPI is applying for a short-term consent only to assist in the facilitation of the sale of the site to another party who will have a longer-term use for the site.

Accordingly, WPI accepts that the application will proceed on a limited notified basis to Ngāti Rangi, while reaffirming its commitment to engage constructively with Ngāti Rangi, Te Korowai o Wainuiarua, and other mana whenua representatives as part of the process.

Conclusion

We trust that the information provided above addresses all matters detailed in the s92 request. The monitoring record and AEE demonstrate that renewal of the existing discharge conditions for five years will maintain compliance with s107(1) RMA and will not result in measurable deterioration of the Whangaehu River's already naturally constrained ecological values.

Please contact the undersigned if you require clarification or further information.

Yours sincerely

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Environmental Scientist

Dr Grant Allen
Director | Lead Environmental Scientist

Viridis Limited

Doyle Richardson
Associate

Mitchell Daysh Limited

[2] As these concessions have not yet been finalised, the discharge modelling undertaken in response to Query 4 utilised a maximum discharge rate of 5,200 m³/day.

Attachments: Figure 1. NIWA Freshwater fish Database records the Whangaehu River catchment

Tabulated NIWA Freshwater fish Database records the Whangaehu River catchment

WPI letter addressed to Ngāti Rangi, dated 8 July 2025.

Ngāti Rangi response letter addressed to WPI, dated 18 July 2025.

WPI letter to Ngāti Rangi, dated 31 July 2025.

References

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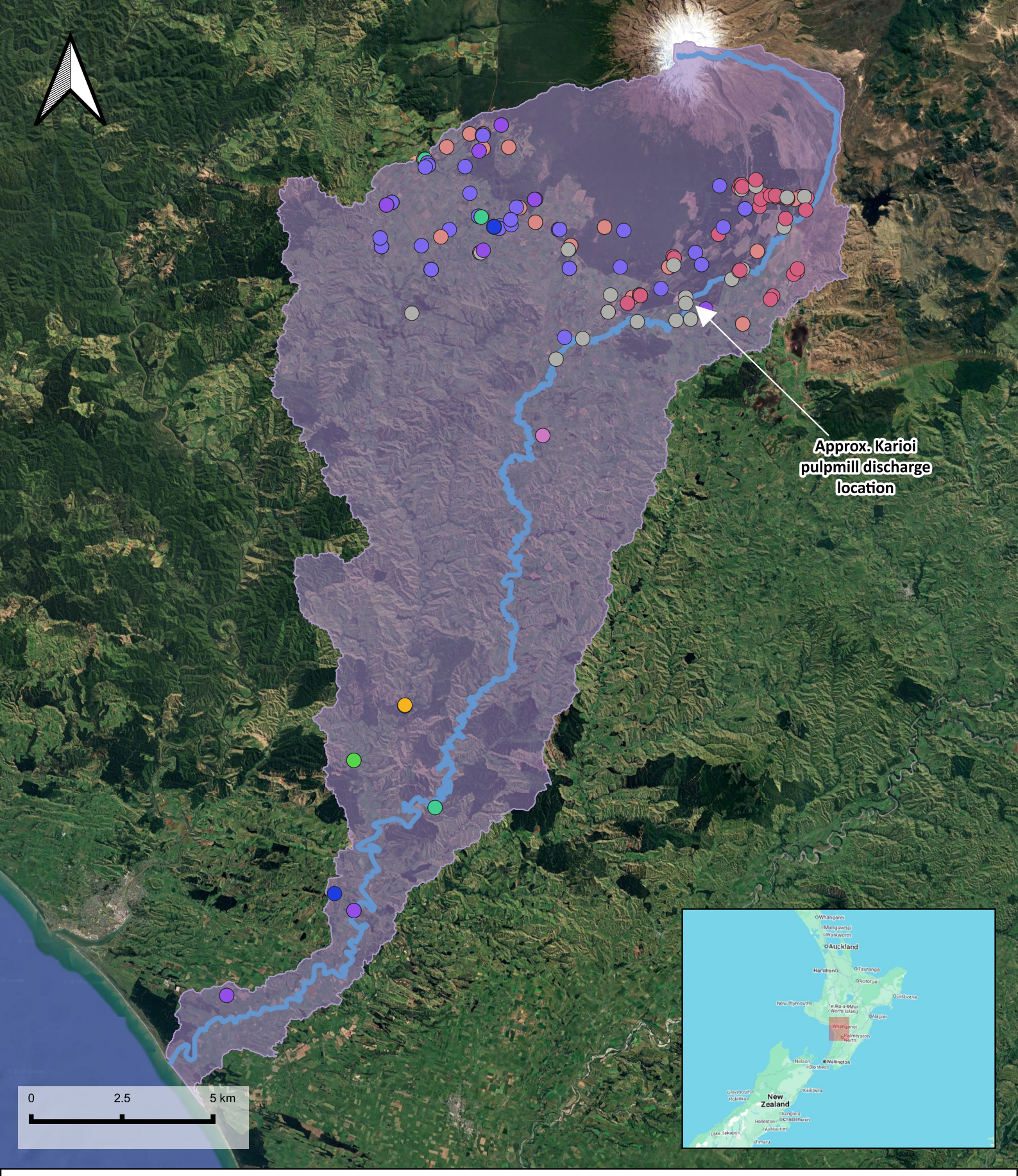

Figure 1. NIWA Freshwater Fish Database records for the Whangaehu River catchment.

Legend

- Whangaehu River
- Whangaehu catchment

Freshwater Fish Database Records

- Brown trout
- Common bully
- Cran's bully
- Goldfish
- Inanga
- Koaro
- Koi carp
- Koura
- Longfin eel
- Perch
- Rainbow trout
- Redfin bully
- Shortfin eel
- Tench
- Freshwater mussel
- Unidentified eel
- Unidentified bully
- No species recorded

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Table A1. NIWA Freshwater Fish Database records for the Whangaehu River catchment, with mainstem records highlighted in green.

Date	Institute	Waterbody	Method	Fish	
				Scientific name	Common name
5/02/1962	Unknown Institution	Maketu Stream	Other - Not listed	Paranephrops	Koura
5/02/1962	Unknown Institution	Maketu Stream	Other - Not listed	Gobiomorphus	Unidentified bully
9/01/1965	NIWA	Kokomiko Stream	Electric fishing - Type unknown	Anguilla australis	Shortfin eel
9/01/1965	NIWA	Kokomiko Stream	Electric fishing - Type unknown	Gobiomorphus basalis	Cran's bully
9/01/1965	NIWA	Whangaehu River tributary	Electric fishing - Type unknown	Anguilla australis	Shortfin eel
9/01/1965	NIWA	Whangaehu River tributary	Electric fishing - Type unknown	Galaxias maculatus	Inanga
9/01/1965	NIWA	Whangaehu River tributary	Electric fishing - Type unknown	Gobiomorphus huttoni	Redfin bully
9/01/1965	NIWA	Whangaehu River tributary	Electric fishing - Type unknown	Anguilla dieffenbachii	Longfin eel
7/04/1969	Department of Conservation Tongariro Taupo	Tokiahuru Stream tributary	Electric fishing - Type unknown	Oncorhynchus mykiss	Rainbow trout
7/04/1969	Department of Conservation Tongariro Taupo	Waiharakeke Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
7/04/1969	Department of Conservation Tongariro Taupo	Wahianoa River tributary	Electric fishing - Type unknown	Oncorhynchus mykiss	Rainbow trout
7/04/1969	Department of Conservation Tongariro Taupo	Wahianoa River tributary	Electric fishing - Type unknown	Oncorhynchus mykiss	Rainbow trout
23/01/1974	Department of Conservation Tongariro Taupo	Tokiahuru Stream tributary	Gill net - Single mesh	Oncorhynchus mykiss	Rainbow trout
23/01/1974	Department of Conservation Tongariro Taupo	Tokiahuru Stream tributary	Gill net - Single mesh	Oncorhynchus mykiss	Rainbow trout
23/01/1974	Department of Conservation Tongariro Taupo	Waiharakeke Stream	Gill net - Single mesh	Paranephrops	Koura
23/01/1974	Department of Conservation Tongariro Taupo	Waiharakeke Stream	Gill net - Single mesh	Salmo trutta	Brown trout
23/01/1974	Department of Conservation Tongariro Taupo	Wahianoa River tributary	Gill net - Single mesh	Oncorhynchus mykiss	Rainbow trout
24/01/1974	Department of Conservation Tongariro Taupo	Wahianoa River tributary	Gill net - Single mesh	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Paranephrops	Koura
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout

Date	Institute	Waterbody	Method	Fish	
				Scientific name	Common name
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
2/05/1978	NIWA	Wahianoa Aqueduct	Other net - Hand net	Oncorhynchus mykiss	Rainbow trout
01/1981	NIWA	Lake Rotokauwau	Angling - Angling	Perca fluviatilis	Perch
01/1981	NIWA	Lake Rotokauwau	Angling - Angling	Anguilla dieffenbachii	Longfin eel
2/01/1981	Fish and Game Wellington	Taonui Stream	Angling - Angling	Salmo trutta	Brown trout
22/12/1983	Fish and Game Auckland Waikato	Taonui Stream	Angling - Angling	Salmo trutta	Brown trout
2/01/1984	Fish and Game Auckland Waikato	Mangaehuehu Stream	Angling - Angling	Salmo trutta	Brown trout
15/03/1984	NIWA	Waitangi Stream tributary	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
15/03/1984	NIWA	Waitangi Stream tributary	Electric fishing - Backpack	Paranephrops	Koura
17/05/1984	Department of Conservation Tongariro Taupo	Taonui Stream tributary	Electric fishing - Backpack	Paranephrops	Koura
17/05/1984	Department of Conservation Tongariro Taupo	Taonui Stream tributary	Electric fishing - Backpack	Salmo trutta	Brown trout
8/10/1985	Bioresearches	Wahianoa River	Electric fishing - Type unknown	Nil	No species recorded
8/10/1985	Bioresearches	Whangaehu River	Electric fishing - Type unknown	Nil	No species recorded
8/10/1985	Bioresearches	Whangaehu River	Electric fishing - Type unknown	Nil	No species recorded
9/10/1985	Bioresearches	Whangaehu River	Electric fishing - Type unknown	Nil	No species recorded
9/10/1985	Bioresearches	Waitangi Stream	Electric fishing - Type unknown	Nil	No species recorded
9/10/1985	Bioresearches	Whangaehu River	Electric fishing - Type unknown	Nil	No species recorded
9/10/1985	Bioresearches	Whangaehu River	Electric fishing - Type unknown	Nil	No species recorded
9/10/1985	Bioresearches	Whangaehu River	Electric fishing - Type unknown	Nil	No species recorded
9/10/1985	Bioresearches	Tokiahuru Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
9/10/1985	Bioresearches	Mangaehuehu Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
9/10/1985	Bioresearches	Whangaehu River	Electric fishing - Type unknown	Nil	No species recorded
24/03/1998	Kingett Mitchell	Waiharakeke Stream tributary	Electric fishing - Type unknown	Nil	No species recorded
24/03/1998	Kingett Mitchell	Waiharakeke Stream tributary	Electric fishing - Type unknown	Paranephrops	Koura
24/03/1998	Kingett Mitchell	Waiharakeke Stream tributary	Electric fishing - Type unknown	Salmo trutta	Brown trout
24/03/1998	Kingett Mitchell	Tokiahuru Stream tributary	Electric fishing - Type unknown	Salmo trutta	Brown trout
25/03/1998	Kingett Mitchell	Whangaehu River tributary	Electric fishing - Type unknown	Oncorhynchus mykiss	Rainbow trout
25/03/1998	Kingett Mitchell	Whangaehu River tributary	Electric fishing - Type unknown	Nil	No species recorded

Date	Institute	Waterbody	Method	Fish	
				Scientific name	Common name
25/03/1998	Kingett Mitchell	Whangaehu River tributary	Electric fishing - Type unknown	Nil	No species recorded
25/03/1998	Kingett Mitchell	Wahianoa River tributary	Electric fishing - Type unknown	Oncorhynchus mykiss	Rainbow trout
25/03/1998	Kingett Mitchell	Wahianoa River tributary	Electric fishing - Type unknown	Oncorhynchus mykiss	Rainbow trout
25/03/1998	Kingett Mitchell	Wahianoa River tributary	Electric fishing - Type unknown	Paranephrops	Koura
26/03/1998	Kingett Mitchell	Whangaehu River tributary	Electric fishing - Type unknown	Nil	No species recorded
26/03/1998	Kingett Mitchell	Tokiahuru Stream tributary	Electric fishing - Type unknown	Salmo trutta	Brown trout
29/04/1998	NIWA	Waitangi Stream	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
29/04/1998	NIWA	Waitangi Stream	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
3/05/1998	Massey University	Mangawhero River	Electric fishing - Backpack	Salmo trutta	Brown trout
3/05/1998	Massey University	Mangawhero River	Electric fishing - Backpack	Paranephrops	Koura
3/05/1998	Massey University	Mangawhero River	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
3/05/1998	Massey University	Mangawhero River	Electric fishing - Backpack	Salmo trutta	Brown trout
3/05/1998	Massey University	Mangawhero River	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
3/05/1998	Massey University	Mangawhero River	Electric fishing - Backpack	Salmo trutta	Brown trout
4/05/1998	Massey University	Mangawhero River	Electric fishing - Backpack	Salmo trutta	Brown trout
4/05/1998	Massey University	Mangawhero River	Electric fishing - Backpack	Paranephrops	Koura
4/05/1998	Massey University	Mangawhero River	Electric fishing - Backpack	Nil	No species recorded
4/05/1998	Massey University	Makotuku River	Electric fishing - Backpack	Salmo trutta	Brown trout
4/05/1998	Massey University	Makara Stream	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
4/05/1998	Massey University	Makara Stream	Electric fishing - Backpack	Salmo trutta	Brown trout
4/05/1998	Massey University	Makara Stream	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
5/05/1998	Massey University	Makara Stream	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
5/05/1998	Massey University	Makara Stream	Electric fishing - Backpack	Salmo trutta	Brown trout
5/05/1998	Massey University	Makara Stream	Electric fishing - Backpack	Paranephrops	Koura
5/05/1998	Massey University	Makotuku River	Electric fishing - Backpack	Paranephrops	Koura
5/05/1998	Massey University	Makotuku River	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
5/05/1998	Massey University	Makotuku River	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
5/05/1998	Massey University	Makotuku River	Electric fishing - Backpack	Salmo trutta	Brown trout
5/05/1998	Massey University	Mangateitei Stream	Electric fishing - Backpack	Paranephrops	Koura

Date	Institute	Waterbody	Method	Fish	
				Scientific name	Common name
5/05/1998	Massey University	Mangateitei Stream	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
5/05/1998	Massey University	Mangateitei Stream	Electric fishing - Backpack	Salmo trutta	Brown trout
5/05/1998	Massey University	Mangateitei Stream	Electric fishing - Backpack	Paranephrops	Koura
5/05/1998	Massey University	Mangateitei Stream	Electric fishing - Backpack	Salmo trutta	Brown trout
6/05/1998	Massey University	Mangaehuehu Stream	Electric fishing - Backpack	Salmo trutta	Brown trout
12/05/1998	Massey University	Makaranui Stream	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
12/05/1998	Massey University	Mangawhero River tributary	Electric fishing - Backpack	Salmo trutta	Brown trout
12/05/1998	Massey University	Mangawhero River tributary	Electric fishing - Backpack	Salmo trutta	Brown trout
12/05/1998	Massey University	Mangawhero River tributary	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
12/05/1998	Massey University	Mangawhero River tributary	Electric fishing - Backpack	Paranephrops	Koura
12/05/1998	Massey University	Waitaiki Stream	Electric fishing - Backpack	Nil	No species recorded
12/05/1998	Massey University	Tokiahuru Stream	Electric fishing - Backpack	Nil	No species recorded
12/05/1998	Massey University	Tokiahuru Stream	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
12/05/1998	Massey University	Tokiahuru Stream	Electric fishing - Backpack	Paranephrops	Koura
12/05/1998	Massey University	Makotuku River	Observation - Spotlighting not captured to ID	Paranephrops	Koura
12/05/1998	Massey University	Makotuku River	Observation - Spotlighting not captured to ID	Gobiomorphus basalis	Cran's bully
12/05/1998	Massey University	Makotuku River	Observation - Spotlighting not captured to ID	Salmo trutta	Brown trout
28/02/2000	Massey University	Mangawhero River	Observation - Spotlighting not captured to ID	Anguilla dieffenbachii	Longfin eel
28/02/2000	Massey University	Mangawhero River	Observation - Spotlighting not captured to ID	Salmo trutta	Brown trout
28/02/2000	Massey University	Mangawhero River	Electric fishing - Type unknown	Salmo trutta	Brown trout
2/05/2000	Massey University	Taonui Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
2/05/2000	Massey University	Taonui Stream	Electric fishing - Type unknown	Paranephrops	Koura
2/05/2000	Massey University	Mangaeteroa Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
2/05/2000	Massey University	Mangaeteroa Stream	Electric fishing - Type unknown	Paranephrops	Koura
2/05/2000	Massey University	Mangaehuehu Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
2/05/2000	Massey University	Waiharuru Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
2/05/2000	Massey University	Waiharuru Stream	Electric fishing - Type unknown	Paranephrops	Koura
3/05/2000	Massey University	Makara Stream	Electric fishing - Type unknown	Anguilla dieffenbachii	Longfin eel
3/05/2000	Massey University	Makara Stream	Electric fishing - Type unknown	Gobiomorphus basalis	Cran's bully

Date	Institute	Waterbody	Method	Fish	
				Scientific name	Common name
3/05/2000	Massey University	Makara Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
3/05/2000	Massey University	Makara Stream	Electric fishing - Type unknown	Paranephrops	Koura
3/05/2000	Massey University	Omarae Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
3/05/2000	Massey University	Mangateitei Stream	Electric fishing - Type unknown	Anguilla dieffenbachii	Longfin eel
3/05/2000	Massey University	Mangateitei Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
4/05/2000	Massey University	Tokiahuru Stream	Electric fishing - Type unknown	Paranephrops	Koura
4/05/2000	Massey University	Tokiahuru Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
4/05/2000	Massey University	Te Unuunuakapuateariki Stream	Electric fishing - Type unknown	Salmo trutta	Brown trout
4/05/2000	Massey University	Te Unuunuakapuateariki Stream	Electric fishing - Type unknown	Paranephrops	Koura
4/05/2000	Massey University	Wahianoa River	Electric fishing - Type unknown	Nil	No species recorded
27/05/2000	Massey University	Taukoro Stream	Electric fishing - Type unknown	Galaxias brevipinnis	Koaro
27/05/2000	Massey University	Taukoro Stream	Electric fishing - Type unknown	Anguilla dieffenbachii	Longfin eel
27/05/2000	Massey University	Taukoro Stream	Electric fishing - Type unknown	Gobiomorphus basalis	Cran's bully
15/12/2001	Department of Conservation Wanganui	Unnamed lake	Other net - combination of nets and traps	Carassius auratus	Goldfish
17/12/2001	Department of Conservation Wanganui	Unnamed lake	Other net - combination of nets and traps	Nil	No species recorded
22/05/2002	Department of Conservation Wanganui	Unnamed pond	Other net - combination of nets and traps	Cyprinus carpio	Koi carp
22/05/2002	Department of Conservation Wanganui	Unnamed pond	Other net - combination of nets and traps	Anguilla	Unidentified eel
22/05/2002	Department of Conservation Wanganui	Unnamed pond	Other net - combination of nets and traps	Tinca tinca	Tench
5/02/2003	Department of Conservation Wanganui	Unnamed pond	Other net - combination of nets and traps	Anguilla australis	Shortfin eel
21/02/2008	Manawatu Wanganui Regional Council	Mangahowhi Stream	Observation - Spotlighting not captured to ID	Paranephrops	Koura
21/02/2008	Manawatu Wanganui Regional Council	Mangahowhi Stream	Observation - Spotlighting not captured to ID	Anguilla australis	Shortfin eel
21/02/2008	Manawatu Wanganui Regional Council	Mangahowhi River	Electric fishing - Boat	Anguilla australis	Shortfin eel
21/02/2008	Manawatu Wanganui Regional Council	Mangahowhi River	Electric fishing - Boat	Paranephrops	Koura
21/02/2008	Manawatu Wanganui Regional Council	Mangahowhi River	Electric fishing - Boat	Salmo trutta	Brown trout
21/02/2008	Manawatu Wanganui Regional Council	Mangawhero Stream	Electric fishing - Boat	Salmo trutta	Brown trout
24/03/2009	NIWA	Waiharakeke Stream tributary	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
24/03/2009	NIWA	Waiharakeke Stream	Electric fishing - Backpack	Salmo trutta	Brown trout
24/03/2009	NIWA	Wahianoa River	Electric fishing - Backpack	Nil	No species recorded
24/03/2009	NIWA	Wahianoa River	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout

Date	Institute	Waterbody	Method	Fish	
				Scientific name	Common name
24/03/2009	NIWA	Whangaehu River tributary	Electric fishing - Backpack	Nil	No species recorded
24/03/2009	NIWA	Whangaehu River tributary	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
24/03/2009	NIWA	Wahianoa River tribuary	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
12/02/2010	Department of Conservation Wanganui	Mangaeteroa Stream	Observation - Spotlighting not captured to ID	Salmo trutta	Brown trout
12/02/2010	Department of Conservation Wanganui	Mangaeteroa Stream	Observation - Spotlighting not captured to ID	Anguilla dieffenbachii	Longfin eel
2/03/2011	NIWA	Waiharakeke Stream	Electric fishing - Bank generator or mains	Oncorhynchus mykiss	Rainbow trout
2/03/2011	NIWA	Waiharakeke Stream	Electric fishing - Bank generator or mains	Salmo trutta	Brown trout
2/03/2011	NIWA	Waiharakeke Stream	Electric fishing - Bank generator or mains	Paranephrops	Koura
2/03/2011	NIWA	Waiharakeke Stream	Electric fishing - Bank generator or mains	Paranephrops	Koura
2/03/2011	NIWA	Waiharakeke Stream	Electric fishing - Bank generator or mains	Salmo trutta	Brown trout
2/03/2011	NIWA	Waiharakeke Stream	Electric fishing - Bank generator or mains	Oncorhynchus mykiss	Rainbow trout
2/03/2011	NIWA	Te Unuunuakapuateariki Stream	Electric fishing - Bank generator or mains	Oncorhynchus mykiss	Rainbow trout
2/03/2011	NIWA	Tokiahuru Stream	Electric fishing - Bank generator or mains	Salmo trutta	Brown trout
2/03/2011	NIWA	Tokiahuru Stream	Electric fishing - Bank generator or mains	Oncorhynchus mykiss	Rainbow trout
2/03/2011	NIWA	Tokiahuru Stream	Electric fishing - Bank generator or mains	Nil	No species recorded
2/03/2011	NIWA	Tokiahuru Stream	Electric fishing - Bank generator or mains	Oncorhynchus mykiss	Rainbow trout
30/04/2012	Department of Conservation Wanganui	Omarae Stream tributary	Observation - Spotlighting not captured to ID	Salmo trutta	Brown trout
3/05/2012	Department of Conservation Wanganui	Mangaeteroa Stream	Observation - Spotlighting not captured to ID	Salmo trutta	Brown trout
3/05/2012	Department of Conservation Wanganui	Mangaeteroa Stream	Observation - Spotlighting not captured to ID	Paranephrops	Koura
3/05/2012	Department of Conservation Wanganui	Haeremaiere Stream	Observation - Spotlighting not captured to ID	Paranephrops	Koura
3/05/2012	Department of Conservation Wanganui	Haeremaiere Stream	Observation - Spotlighting not captured to ID	Anguilla dieffenbachii	Longfin eel
3/05/2012	Department of Conservation Wanganui	Makotuku River	Observation - Spotlighting not captured to ID	Paranephrops	Koura
3/05/2012	Department of Conservation Wanganui	Makotuku River	Observation - Spotlighting not captured to ID	Salmo trutta	Brown trout
3/05/2012	Department of Conservation Wanganui	Mangaehuehu Stream	Observation - Spotlighting not captured to ID	Salmo trutta	Brown trout
3/05/2012	Department of Conservation Wanganui	Mangaehuehu Stream	Observation - Spotlighting not captured to ID	Paranephrops	Koura
2/12/2015	Fish and Game Taranaki	Mangawhero River	Electric fishing - Backpack	Salmo trutta	Brown trout
2/12/2015	Fish and Game Taranaki	Mangawhero River	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Paranephrops	Koura

Date	Institute	Waterbody	Method	Fish	
				Scientific name	Common name
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Salmo trutta	Brown trout
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Salmo trutta	Brown trout
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Anguilla	Unidentified eel
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Anguilla australis	Shortfin eel
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Salmo trutta	Brown trout
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
2/12/2015	Fish and Game Taranaki	Makotuku River	Electric fishing - Backpack	Salmo trutta	Brown trout
3/12/2015	Fish and Game Taranaki	Mangawhero River	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
3/12/2015	Fish and Game Taranaki	Mangawhero River	Electric fishing - Backpack	Salmo trutta	Brown trout
3/12/2015	Fish and Game Taranaki	Mangawhero River	Electric fishing - Backpack	Paranephrops	Koura
3/12/2015	Fish and Game Taranaki	Mangawhero River	Electric fishing - Backpack	Salmo trutta	Brown trout
3/12/2015	Fish and Game Taranaki	Mangawhero River	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
3/12/2015	Fish and Game Taranaki	Mangawhero River	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
3/12/2015	Fish and Game Taranaki	Mangawhero River	Electric fishing - Backpack	Salmo trutta	Brown trout
4/02/2016	Manawatu Wanganui Regional Council	Taukoro Stream	Observation - Spotlighting not captured to ID	Gobiomorphus	Unidentified bully
4/02/2016	Manawatu Wanganui Regional Council	Taukoro Stream	Observation - Spotlighting not captured to ID	Anguilla dieffenbachii	Longfin eel
4/02/2016	Manawatu Wanganui Regional Council	Taukoro Stream	Observation - Spotlighting not captured to ID	Galaxias maculatus	Inanga
2/12/2017	Fish and Game Taranaki	Makara Stream	Electric fishing - Backpack	Gobiomorphus basalis	Cran's bully
2/12/2017	Fish and Game Taranaki	Makara Stream	Electric fishing - Backpack	Salmo trutta	Brown trout
2/12/2017	Fish and Game Taranaki	Makara Stream	Electric fishing - Backpack	Paranephrops	Koura
2/12/2017	Fish and Game Taranaki	Makara Stream	Electric fishing - Backpack	Anguilla	Unidentified eel
2/12/2017	Fish and Game Taranaki	Makara Stream	Electric fishing - Backpack	Anguilla dieffenbachii	Longfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Gobiomorphus cotidianus	Common bully
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Echyridella	Unidentified freshwater mussel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Gobiomorphus	Unidentified bully
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Gobiomorphus	Unidentified bully

Date	Institute	Waterbody	Method	Fish	
				Scientific name	Common name
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Gobiomorphus	Unidentified bully
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Echyridella	Unidentified freshwater mussel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Salmo trutta	Brown trout
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla dieffenbachii	Longfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla australis	Shortfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Salmo trutta	Brown trout
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla dieffenbachii	Longfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla australis	Shortfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Salmo trutta	Brown trout
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla dieffenbachii	Longfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla dieffenbachii	Longfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla australis	Shortfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla dieffenbachii	Longfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Galaxias brevipinnis	Koaro
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Gobiomorphus cotidianus	Common bully
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Gobiomorphus cotidianus	Common bully
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla australis	Shortfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla dieffenbachii	Longfin eel
4/02/2021	Manawatu Wanganui Regional Council	Mangawhero River	Chemical detection - DNA	Anguilla australis	Shortfin eel
24/03/2023	Manawatu Wanganui Regional Council	Makara Stream	Electric fishing - Backpack	Anguilla	Unidentified eel
24/03/2023	Manawatu Wanganui Regional Council	Makara Stream	Electric fishing - Backpack	Paranephrops	Koura
15/12/2023	Wai Kōkopu Consulting	Mangaehuehu Stream tributary	Traps - Gee minnow	Nil	No species recorded
15/12/2023	Wai Kōkopu Consulting	Mangaehuehu Stream tributary	Fyke net - Mini	Nil	No species recorded
16/04/2024	New Zealand Defence Force	Waitangi Stream	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
16/04/2024	New Zealand Defence Force	Waitangi Stream	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
16/04/2024	New Zealand Defence Force	Waitangi Stream	Electric fishing - Backpack	Oncorhynchus mykiss	Rainbow trout
23/04/2024	New Zealand Defence Force	Waitangi Stream	Fyke net - Standard	Anguilla dieffenbachii	Longfin eel

Notes: Data retrieved from the NIWA online database portal on 3 September 2025. Count data not included due to inconsistency of records and methods.

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WPI™
forestry timber pulp

08 July 2025

Dear Helen & Deana,

Thank you for taking the time to meet with myself and the prospective purchaser of WPI sites on Wednesday, 25 June 2025 to discuss the resource consent renewal applications WPI has lodged with Horizons Regional Council.

As an action from our meeting, the purchaser was to provide data on the type of discharge expected from the site should they successfully acquire the WPI site. This data will be based on current information from their operating sites in Europe and Scandinavia.

In the meantime, I want to reiterate that the potential sale to the purchaser remains highly conditional and may not proceed. As discussed, to give the site the best chance of being sold and repurposed - and to realise the significant economic and social benefits this could bring - it is essential that the replacement short-term treated wastewater discharge consent retains limits consistent with the existing consent. Tightening the conditions to suit a specific activity that may or may not proceed risks undermining these broader opportunities.

I acknowledge Ngāti Rangi's strong interest in exploring a land-based discharge alternative with any future site owner. While I support this aspiration in principle, implementing such a system would require significant time, technical assessment, and regulatory approvals. These steps cannot realistically be completed within the timeframe of a sale and purchase agreement. However, a short-term consent provides a valuable window for a future owner to work collaboratively with Ngāti Rangi and other stakeholders to develop a long-term, culturally, and environmentally appropriate solution. This approach is consistent with the process WPI was following prior to announcing the cessation of operations.

To further support improved outcomes, WPI has included two safeguards across its consent applications to ensure the site cannot be re-established in the same manner as before:

- **Air discharge consent application:**
  Removing the ability to dry wood pulp on site, which is essential to pulp production. This change effectively prevents pulp manufacturing and removes a major source of wastewater discharge impacts.
- **Short-term wastewater discharge consent application:**
  Requiring any future site owner to undertake a technical review before restarting activities involving wastewater discharge. This review must confirm that any new manufacturing or treatment process can comply with the consent limits.

If the site is sold and any new operator wishes to restart activities, they would likely need to invest in updated processes and technology to meet the requirements of a long-term consent once the short-term consent expires.

To provide clarity on the likely timing of any future discharge, I have outlined the following indicative timeline:

- **1 July 2025**
  Current status: The site has ceased operations since September 2024, and no treated wastewater discharge has occurred for nearly 10 months.
- **1 February 2026**
  Earliest possible completion of the WPI site sale.
- **1 February 2026 through 1 September 2027**
  The site functions as a construction zone while a new plant is built. Whilst the purchaser we met with is the most advanced party, other potential buyers may delay settlement, construction, and operational timeframes further.

Based on these timeframes, I consider it unlikely that any treated wastewater discharge will resume for at least the next two years. In reality, discharge is more likely to resume around January 2028, almost 2.5 years from now. This means any new operator would need to begin preparing for a replacement of the short-term consent during the construction phase of their new plant.

There are also broader constraints that limit the potential for pulp processing at the site in the short term. In addition to the changes to the air discharge application - specifically the removal of the ability to dry wood pulp - the site has lost access to the electricity supply required to operate the pulp refiners. These two changes together mean that pulp production cannot occur under the current conditions. As such, it is highly unlikely that pulp manufacture will resume during the term of the replacement short-term consent.

While WPI has previously faced challenges meeting the discharge limits of the existing treated wastewater consent, I am confident that the additional safeguards outlined above, combined with a short-term nature of the consent, will prevent these issues from recurring. This approach provides a pathway for improved cultural and environmental outcomes under a new owner.

I also want to acknowledge the significance of the awa under *Te Waiū o te Ika* and the values Ngāti Rangi upholds in protecting this taonga for current and future generations. I respect this responsibility and remain committed to working in a way that honours it.

I hope this helps address your concerns and that you may support the applications currently before Horizons Regional Council.

Best Regards

Mike Ryan

021 763 502

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18th July 2025

Mike Ryan
Winstone Pulp International Limited
1002 State Highway 49
PO Box 48
OHAKUNE 4660

Tēnā koe Mike i ngā ahuatanga o te wā

Thank you for your letter dated 8th July 2025.

Ngāti Rangi are one of the tāngata whenua of this region and take seriously their role as tāngata tiaki over our natural world. Ngāti Rangi is based on the southern slopes of Matua te Mana (Ruapehu). Our cultural identity is linked to his essence; the lifeblood of our people cascade as waters from his slopes; his peaks above are our sacred altar. We appreciate that you have seen that our involvement in this consent application within our rohe is important to you.

The Ngāti Rangi role as tangata tiaki for Te Waiū-o-Te-Ika, as set out in our Deed of Settlement Rukutia Te Mana is a key responsibility where we make decisions that will affect the generations to come. Te Waiū-o-Te-Ika is a living and indivisible whole, comprising physical, mineral and metaphysical elements, giving life and healing to its surroundings and communities. All concessions and consents within this catchment must have particular regard for the values of Te Waiū-o-Te-Ika. It includes the entire catchment of the Whangaehu River including all tributaries lakes and wetlands connected to the awa, from Te Wai ā-moe (Crater Lake) to the sea.

The vision statement for Ngāti Rangi is:*"Kia mura ai te ora o Ngāti Rangi nui tonu ki tua o te 1,000 tau. Ngāti Rangi continues to vibrantly exist in 1,000 years."* This vision statement means Ngāti Rangi will continue to thrive and prosper for a thousand years and beyond. It is a testament to our role and responsibility to be active tāngata tiaki for our environment to ensure our descendants in 1,000 years have clean water, fresh air, and healthy land.

To this end, we have reviewed your letter and note the following:

Ngāti Rangi is unwilling to support continuation of resource consents that were in place at 30 June 2025 at this time.

You will appreciate that environmental kaupapa are especially important to Ngāti Rangi and our whānau will expect that the leadership and kaimahi of Ngāti Rangi take an informed view about any new developments on the sites of the sawmill and pulp and paper mill.

Notwithstanding the above position Ngāti Rangi may be willing to consider its position on modified consent applications for the two sites subject to Winstone Pulp International providing us with documentation, assurance and engaging with us more widely on this matter. Once we have that information then we will give consideration to any proposed modified consents.

In good faith we are willing to provide WPI with the time required (i.e. not decline the current application) to submit an updated application which specifies the reduced consent conditions.

In the interests of expediency, we would ask that you please deal with Shane Ellison on this on a day-to-day basis. Shane is aware of Ngāti Rangi's position on the matter; is entrusted to represent our interests and will present any findings back to myself and Te Tōtarahoe o Paerangi Board for decisions as required.

We look forward to hearing from you in respect of this Kaupapa.

Nāku noa, nā

Helen Leahy
Pou Ārahi
Ngā Waihua o Paerangi Trust

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31 July 2025

An open letter to the board of Te Tōtarahoe o Paerangi (Ngāti Rangi Trust)

Thank you for the opportunity to present this letter to you all.

We hope the points in this letter can support discussions at the upcoming hui on 6 August and clarify WPI's position. If our proposed amendments do not fully address your concerns, we welcome the opportunity to explore what further changes might provide greater confidence in this approach. We are committed to working together in good faith, kanohi ki te kanohi or otherwise, before finalising any amendments to the applications with HRC.

Consent applications

We are responding to the attached correspondence presented to members of the WPI – Ngāti Rangi environment group, on 8 July 2025, seeking Ngāti Rangi's support of two resource consent applications WPI currently has lodged with the Horizons Regional Council (HRC) for renewal, and your response, dated 18 July 2025, also attached. This letter seeks to address the comments and concerns of the Trust.

The consent application renewals are:

- APP-2002020157.06 – replacement air discharge consent – Karioi Pulp Mill

- APP-2006012018.02 – replacement consent to discharge treated pulp processing wastewater and stormwater to the Whangaehu River

In the first instance we wish to reinforce that the applications are not simple re-lodgements of the existing consents – they have been modified from the existing consents.

Firstly, in respect of

- APP-2002020157.06 – replacement air discharge consent – Karioi Pulp Mill

WPI identified that the pulp drying and baling process is unlikely to be undertaken onsite in the future.

A range of support equipment and systems including mechanical pulping and the energy plant have a high probability of being used in alternative wood related processes. On this basis, the renewal application was updated in March 2025 to remove the pulp drying and baling processes and thus obtain consent only in relation to the following activities:

- Energy plant centre - Thermal oil plant and sawdust drier.
- Pulping plant (pulp processing); and
- Potential odour from the wastewater treatment plant.

The removal of the pulp drying and baling processes results in a significant reduction in particulate emissions, which is evident in the predicted maximum off-site ground level concentrations (GLC) of particulate matter.

The air quality assessment, prepared by Air Matters, focused on the particulate size fractions PM_{10} and $PM_{2.5}$, as these are the relevant indicators for assessing potential health effects from particulate discharges. Table 1 compares the predicted maximum off-site GLC from the 2023 application with those from the updated 2025 application.

Table 1: Predicted Maximum Off-site Ground Level Concentrations (GLC) of $PM_{2.5}$ and $PM10_{10}$. "Background concentration" is the level of a particular air contaminant that is already present in the ambient environment. 24-hour concentration refers to the average level of a contaminant in the air over a single day. It helps assess potential health effects from short-term exposure, such as respiratory irritation on a high-pollution day. Annual concentration is the average level over an entire year. It indicates the long-term, ongoing exposure to a contaminant and is important for understanding chronic health risks.

	24 hr (µg/m³)		Annual (µg/m³)	
	Max off-site (GLC)	**Max off-site GLC + background concentration**	**Max off-site (GLC)**	**Max off-site GLC + background concentrations**
2023 Application:				
PM_{10}	58.8	72.5	11	16.5
$PM_{2.5}$	53.9	60.5	10	11.9
Updated 2025 Application:				
PM_{10}	13.1	27	2.9	8
$PM_{2.5}$	7.9	15	1.7	4

The updated 2025 application shows a significant reduction in particulate matter concentrations compared to the 2023 application. For PM_{10}, the maximum 24-hour concentrations decreased from 58.8 to 13.1 µg/m^3, and annual concentrations maximum from 11 to 2.9 µg/m^3. For $PM_{2.5}$, 24-hour maximum dropped from 53.9 to 7.9 µg/m^3, and annual maximum from 10 to 1.7 µg/m^3. These represent reductions of approximately 70–85% primarily resulting from removing the pulp drying and baling process.

The updated assessment confirms that predicted concentrations of both $PM_{2.5}$ and PM_{10} including background levels, are well below the relevant New Zealand assessment criteria, as summarised in Table 2.

Table 2: NZ Assessment Criteria

	24 hr PM_{10} (µg/m³)	**Annual PM_{10} (µg/m³)**	**24 hr $PM_{2.5}$ (µg/m³)**	**Annual $PM_{2.5}$ (µg/m³)**
NZ Criteria	50	20	25	10
Maximum off-site GLC + background concentration	27	8	15	4

Air Matters and the air quality specialist acting on behalf of Council, Pattle Delamore Partners (PDP), also assessed the other contaminants from combustion sources and the wet pulping process, including the oxides of nitrogen (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC). Both specialists agreed that the adverse effects on air quality resulting from these contaminants would be less than minor.

Secondly, in respect of:

- APP-2006012018.02 – replacement consent to discharge treated pulp processing wastewater and stormwater to the Whangaehu River.

Following lodgement, WPI was advised by HRC on 1st May 2025 that further information was being requested under section 92(1) of the Resource Management Act. WPI and its consultants are currently preparing this information for presentation to Council.

However, the letter dated 18 July 2025 from Ngāti Rangi resulted in a reassessment of the consent application as currently lodged.

WPI recognises the importance of Te Mana o te Wai and our obligations under Te Tiriti o Waitangi and are committed to upholding these values in the management and transition of the site.

We'd also like to briefly outline why WPI is seeking a short-term rollover of the current discharge consent:

- Under section 124 of the RMA, the consent technically remains valid while a replacement is processed. However, prospective purchasers often do not fully understand or trust this continuation right. They tend to place greater value on a consent with a future expiry date.
- The intent of the short-term consent is to enable a clean transition. It gives a future site owner time to determine the best long-term use of the site and to prepare their own consent application. That application would reflect a new and different activity and involve its own engagement process.
- No discharge is expected to occur during the short-term consent period. The air discharge consent has been modified to remove key infrastructure for pulp production, and the electricity supply is no longer sufficient to operate the energy-intensive refiners. These constraints make it practically impossible to restart the pulp mill.

The future use of the site also presents an opportunity to restore some of the local employment that was lost when operations ceased. Many of those affected were Ngāti Rangi whānau, and we believe that a new operation, developed in line with your aspirations, could help support both economic and cultural outcomes for the rohe.

Considering your feedback, we propose the following changes to the wastewater discharge application:

- Reducing the permitted discharge volume by more than 24%, from 5,325 m^3/day to 4,000 m^3/day.
- Removing the ability to apply antifoam agent to the Whangaehu River
- Adding a condition requiring Ngāti Rangi to be consulted prior to any recommencement of discharge activity, and

In addition to these changes, we wish to reaffirm that the application retains the existing condition requiring a technical review before any discharge recommences, to ensure compliance with consent limits.

We also acknowledge Ngāti Rangi's aspiration for land-based discharge. Prior to the cessation of activities in September 2024, WPI was working toward a major WWTP upgrade that specifically targeted colour and foaming issues and included a polishing wetland. While the full upgrade is no longer feasible, the intent was to better align with the Taiao Management Plan and the principle of discharge "passing through land or a wetland prior to release to water." A new owner would be well placed to revisit this approach as part of a future consent tailored to their activity.

To further support confidence in the short-term consent, we confirm that WPI does not seek to rely on section 107(2) of the RMA. Given that no discharge is expected and the site cannot operate in its current state, we are confident that the proposed conditions, including the changes outlined above, will ensure the effects identified under section 107(1) do not arise. Should a new owner wish to discharge, they will need to demonstrate compliance or seek a new consent suited to their operations.

We appreciate there is a lot to reflect on in this letter, and I invite you to contact me directly to discuss or clarify any aspects. We would be grateful to hear back from the Trust at your earliest convenience, ideally within the week. If there's anything we can do to assist you in the meantime, please don't hesitate to let me know.

Yours sincerely

Mike Ryan
Chief Executive Officer
Winstone Pulp International Limited

021 763 502
mike.ryan@wpinz.com

CC Shane Ellison