Papakura Water Treatment Plant
2024-2025 Annual Report

Final - October 2025

Watercare

QUALITY INFORMATION

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1 INTRODUCTION

The current Papakura Water Treatment Plant was constructed to reinstate the use of the Hays Creek Dam, and resource consent DIS60375065 allows the discharge of off-spec water to Hays Stream during the commissioning and operation of the plant. The discharge location is on the true right bank of Hays Stream at the Hunua Gorge bridge, approximately 600 m to the west of the treatment plant. The structure comprises of an integrates outfall and energy dissipation structure with a rip rap apron approximately six metres above the bed of Hays Stream. The plant became operational on 31 August 2024.

This report contains the monitoring results for 1 July 2024 to 30 June 2025. Specifically, the report contains the following:

- Discharge flow monitoring records; and
- Summary of when they occurred and record of visual check for scour and visible environmental impacts; and
- Summary of any failures/breakouts which resulted in a discharge to Hays Stream and complaints that have occurred, and actions to resolve any problems.

2 DISCHARGE RECORDS

Condition 27 of the resource consent authorises the following discharge quantities:

a) *174L/s for 16 hours a day for up to seven days per week, for the commissioning clarifier only stage;*
b) *174L/s for 24 hours a day for up to seven days per week, for the remaining commissioning stages;*
c) *174L/s for up to 24 hours for 20 consecutive days, for the trial for operation stage;*
d) *220 L/s, during normal operation; and*
e) *A maximum daily volume of 15 million litres."*

Any discharges in the 2024-2025 reporting period are attributed to normal operations, condition 27(d).

One discharge occurred during the monitoring period, on 27 May 2025.

2.1 Discharge flow monitoring,

The discharge on 27 May 2025 occurred for approximately 1 hour, with a maximum discharge rate of 104.17 L/s and total volume of 6,250 L.

2.2 Impact assessment

Water quality monitoring and visual assessments were undertaken on 27 May 2025 at a control site beneath the Hunua Road bridge, at the discharge point, and 100 m downstream. Water quality results are presented in Table 2-1. The discharge did not exceed the consented limits and was lower than most parameters measured at the control site. Visual inspections indicated that, due to recent rainfall, stream levels were elevated, and natural scums were present both upstream and downstream of the discharge point. No adverse environmental effects were observed as a result of the discharge.

Table 2-1: Discharge water quality monitoring results on 27 May 2025

Parameter	Control Site	Discharge outlet	Consent limit
pH	7.47	7.14	6.5 - 9
Residual chlorine (mg/L)*	0.00	0.03	≤0.02 mg/L (g/m3)
Fluoride (mg/L)*	0.00	0.00	≤0.8 mg/L (g/m3)
Turbidity (NTU)	38.0	1.32	≤10 NTU
Soluble aluminium (mg/L)	0.027	0.016	≤0.15 mg/L (g/m3)

*These parameters are not applicable, the discharge did not occur from the treated water tank. The colorimeter limit of detection for chlorine is 0.02 mg/L, with a maximum margin of error +/- 5%.

2.3 Unplanned discharges

No unplanned discharges occurred due to the failure of equipment at the plant that resulted in a discharge in 2024-2025.

2.4 Complaints

No complaints occurred during the 2024-2025 monitoring period because of discharges from the plant.

3 CONCLUSIONS

In accordance with consent DIS60375065, off-spec water was discharged from the Papakura Water Treatment Plant to Hays Stream during the reporting period of 1 July 2024 to 30 June 2025. The single discharge event complied with the consented daily limits, and no adverse environmental effects were observed. No equipment failures resulted in unplanned discharges, and no complaints were received. Overall, the plant remained in full compliance with all resource consent requirements.