RESOURCE CONSENT COMPLIANCE REPORT

for Ōtaki WWTP 2022/2023

September 26, 2023

Prepared for:
Kāpiti Coast District Council

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Project Number:
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Executive Summary

This report has been compiled in accordance with the reporting requirements, Condition 43, of the Resource Consent Permit No. WGN160002 that allows the Ōtaki Wastewater Treatment Plant (WWTP) to discharge treated effluent to land to a Land Discharge and Treatment Area (LDTA) and contaminants to air from the operation of the plant.

Kāpiti Coast District Council (KCDC) must provide the compliance report for the previous financial year, and present it to the Manager, Environmental Regulation, Greater Wellington Regional Council by 30 September. The period covered in this report is 1 July 2022 to 30 June 2023.

The following changes made by KCDC in early 2022/23 have improved the activity's compliance with the consent:

1. An investigation into the non-compliance of the groundwater DRP investigation was conducted and a number of potential solutions to the non-compliance were identified.
2. The control system has been updated so that:
    a. treated wastewater is not automatically discharged to the LDTA once the Oxidation Ponds and Storm Flow Buffer Pond are full.
    b. the minimum volume in the Storm Flow Buffer Pond is no more than 200 m^3, maintaining 5,000m^3 of wet weather storage.
3. KCDC and NHoŌ are meeting quarterly to discuss the Ōtaki WWTP consents and activities.
4. KCDC established the Ōtaki WWTP Community Liaison Group (CLG) in February/March 2023. The Ōtaki Community Board, Regional Public Health, Greater Wellington Regional Council and several adjoining landowners accepted the invitation to join the CLG. Ngā Hapu o Ōtaki and the Department of Conservation declined the invitation. The first CLG meeting was held in Ōtaki on 21 March 2023.

A summary of the 2022/2023 performance against the resource consent conditions is provided in in the following tables.

Monitoring Conditions to Resource Consent

Conditions to Resource Consent	Condition	Compliance
Maximum Discharge Rate	9 & 10	
Maintaining Wet Weather Storage	11	
Wastewater Volume Measurement	12, 13 & 14	
Monitoring of Pond Appearance	15	
Monitoring of Pond Effluent Quality	16*	
Soluble Carbonaceous BOD	17 a)	
Total Suspended Solids	17 b)	

Conditions to Resource Consent	Condition	Compliance
Faecal Coliforms	17 c)	●
Ammoniacal Nitrogen	17 d)	●
Dissolved Reactive Phosphorus	17 e)	●
Monitoring of Groundwater and Spring Water	18	●
E. coli and Soluble Inorganic Nitrogen in Bores 4 & 5	19 & 20	●
Attenuation Equilibrium, Bores 4, 5 and Spring	21	
Total Nitrogen		●
Dissolved Reactive Phosphorus		● (bores 4 & 5)
E. coli		●

Other Conditions

Conditions to Resource Consent	Condition	Compliance
General Conditions	1 & 2	●
LDTA Optimisation Study & Report	3 & 4	●
LDTA Optimisation Implementation	5	●
Operations and Maintenance Manual	6, 7 & 8	●
Inspection Records and Operational Logs	22	●
Monitoring Requirements	23	●
Performance and Maintenance of the Distribution System	24, 25 & 26	●
Reserve Area for Effluent Discharge	27	●
Inflow and Infiltration Investigations, Works and Reporting	28	●
Odour Management	29, 30, 31 & 32	●
Planting within the Land Discharge & Treatment Area	33, 34 & 35	●
Perimeter Planting	36	●
Fencing and Signage	37	●
Iwi Consultation	38 & 39	●
Community Liaison Group	40	●
Complaints	41	●
Incident Notification	42	●
Reporting	43	●

The following issues have been identified to be addressed:

1. **Bore Dissolved Reactive Phosphorus Attenuation:** this is set **red** in terms of compliance. The cause of this has been investigated and potential solutions identified.
2. **Maximum Discharge Rate:** this is set at **orange** in terms of compliance. This occurred during the wettest July on record and occurred due to a programming error causing treated wastewater to be discharged to the LDTA automatically when the Storm Flow Buffer Pond is full. It was notified to GWRC shortly after it occurred and the control system has subsequently updated.
3. **Wet Weather Storage:** this is set at **orange** in terms of compliance. While technically compliant with the consent condition it has been identified that the rate of population growth is significantly higher than forecast at the time the consent was issued. Options to resolve this are being considered

1 Ōtaki Wastewater Treatment Plant

The Ōtaki Wastewater Treatment Plant (OWWTP) was granted a revised resource consent permit (WGN160002) to discharge treated effluent to land to a Land Discharge and Treatment Area (LDTA) and contaminants to air from the operation of the plant, in October 2016. As part of this consent, the Kāpiti Coast District Council (KCDC) must provide a compliance report on the performance of the plant against the parameters presented in the permit.

Under condition 43 of this consent, KCDC must provide the compliance report for the previous financial year, and present it to the Manager, Environmental Regulation, Wellington Regional Council by 30 September. The period covered in this report is 1 July 2022 to 30 June 2023.

This report outlines the required consent conditions and reports their status and/or compliance.

2 Compliance Monitoring and Analysis

This section covers conditions 9-21 of the resource consent related to flow and treated effluent / bore quality monitoring and compliance.

2.1 Maximum Discharge Rate

Condition 9 and 10 permits the discharge of treated wastewater from the Ōtaki wastewater treatment plant into the Land Discharge Treatment Area (LDTA), at a maximum rate of 2,820m³/day and the hydraulic application rate shall not exceed a maximum effluent depth of 155mm/day.

2.1.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Maximum Discharge Rate	9 & 10	

Figure 2-1 shows the flow volume discharged to the LDTA for the 2022/23 period depicting only one exceedance where the effluent flow exceeded at 2,902m³/d on 02 Aug 2022. This occurred during an extreme wet weather event where the rainfall was almost twice the monthly average. The cause was identified as a programming error. When the plant total effluent has reached its limit of 2,801m³ excess flow was diverted to the storm basin. Once the storm basin reaches 95% it then would divert back into the LDTA. The control system has subsequently updated so that it does not occur automatically. This was notified to GWRC shortly after it occurred.

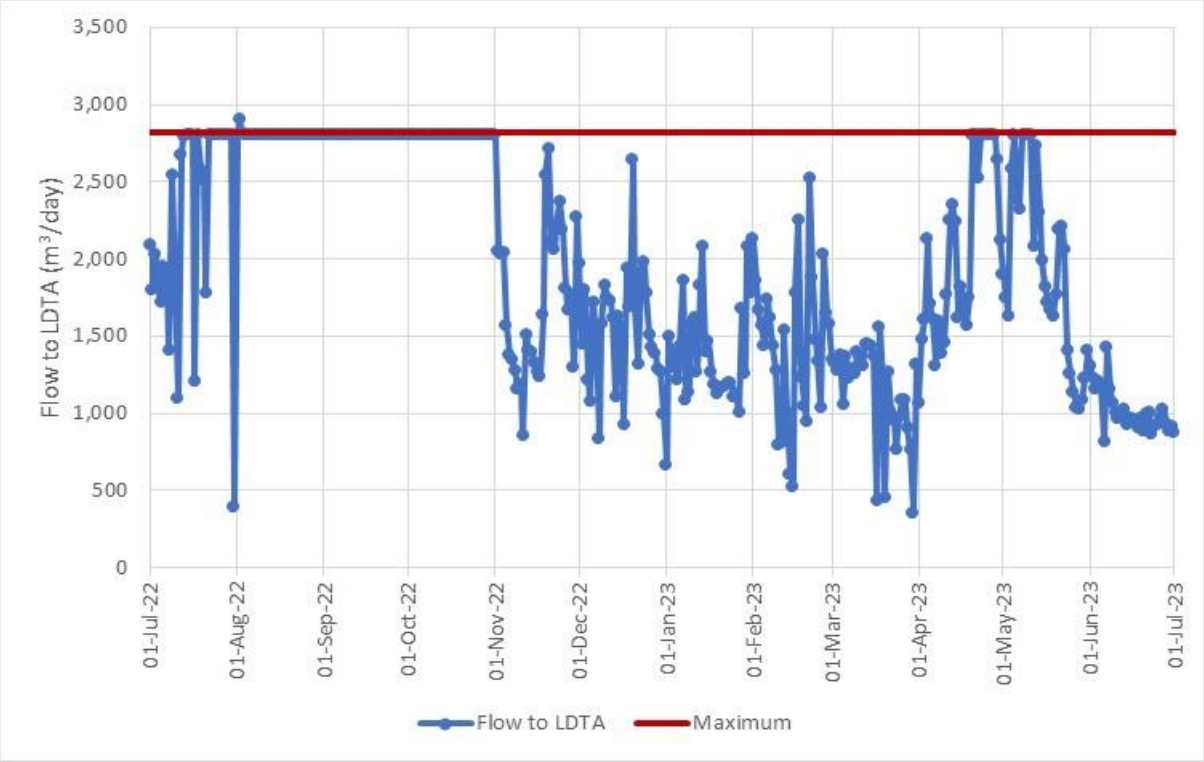

Figure 2-1 Treated Effluent Discharged to LDTA

2.2 Wet Weather Storage

Condition 11 requires 5,000m^3 of wet weather storage capacity at the site, and assessment of predicted inflow volumes and population.

2.2.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Maintaining Wet Weather Storage	11	

KCDC's Storm Flow Buffer Pond is 5,200m^3 and was maintained for use during the compliance period. However, due to the high groundwater level at the site, the pond was maintained with a minimum of 15% of the total depth, 10% of the total volume, occupied with "residual material" (i.e., a mixture of treated wastewater and rainwater). This was to prevent the liner being displaced by groundwater. Therefore, the available capacity of the Storm Flow Buffer Pond is 4,700 m^3.

KCDC has updated the level setting in the control system to ensure that the minimum volume in the Storm Flow Buffer Pond is no more than 200 m^3, maintaining 5,000m^3 of wet weather storage capacity at the site and ensuring ongoing compliance with Condition 11. The effect of this change will be monitored to determine if it is adequate for preventing the liner being displaced by groundwater. If it is deemed inadequate then alternative options for compliance with Condition 11 will be investigated in liaison with GWRC and NHoŌ.

The consent indicates that a predicted inflow of 2,090m^3/day to the WWTP was calculated based on a Ōtaki resident population of 6,520 in 2035. The current average influent flow for 2022/23 is 2,109 m^3/day with an estimated connected population of 7,200. Latest predictions estimate that the population will be 9,292 by 2036.

As stated in the 2019/2020 annual consent compliance report to GWRC, there is a risk that storage is likely to be exceeded before expiry of this consent if Ōtaki's population continues to grow as currently predicted. It is planned to install variable weirs in the oxidation ponds to allow the levels to be decreased to increase storage capacity. The desludging of the Oxidation Ponds has been carried out this 2022/23 period in order to ensure sufficient total storage and treatment capacity.

2.3 Monitoring of Wastewater Flows

Condition 14 requires daily records of influent wastewater flow, the treated effluent volume discharged to the LDTA, and which zones were irrigated.

2.3.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Wastewater Volume Measurement	12, 13 & 14	

Refer to Appendix A for flow records.

2.4 Pond Appearance

Condition 15 requires weekly records of dissolved oxygen, weather conditions (temperature), pond appearance, and odour.

2.4.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Monitoring of Pond Appearance	15	

Refer to Appendix D for Pond Appearance records.

2.5 Pond Effluent Quality Monitoring

Condition 16 of the resource consent requires the consent holder to monitor the pond effluent quality for the following parameters on a monthly basis:

- BOD_5 (mg/L)
- Non-filterable residue (suspended solids) (mg/L)
- E. coli (MPN/100mL)
- Faecal coliforms (MPN/100mL)
- Ammonia (mg/L)
- Nitrate (mg/L)
- Nitrite (mg/L)
- Total Nitrogen (mg/L)
- Total Phosphorus (mg/L)
- Dissolved Reactive Phosphorus (DRP) (mg/L)
- pH

2.5.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Monitoring of Pond Effluent Quality	16	

Refer to Appendix B for Pond Effluent Quality records.

2.6 Pond Effluent Composition

Condition 17 of the resource consent requires that the treated effluent meet the following standards prior to discharge to the Discharge Area:

Parameter	Acronym	Units	33rd Percentile Limit*	83rd Percentile Limit**
Soluble Carbonaceous Biochemical Oxygen Demand	scBOD	mg/L	35	45
Total Suspended Solids	TSS	mg/L	100	150
Faecal Coliforms	-	cfu/100mL	50,000	120,000
Ammoniacal Nitrogen	NH_4-N	mg/L	23	30
Dissolved Reactive Phosphorus	DRP	mg/L	5	11

* 8 out of 12 (33.3%) consecutive samples must not exceed the 33rd Percentile.

** 2 out of 12 (83.3%) consecutive samples must not exceed the 83rd Percentile.

2.6.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Soluble Carbonaceous BOD	17 a)	
Total Suspended Solids	17 b)	
Faecal Coliforms	17 c)	
Ammoniacal Nitrogen	17 d)	
Dissolved Reactive Phosphorus	17 e)	

The following sub-sections graphically demonstrate the compliance of the treated effluent standards for scBOD, TSS, faecal coliforms, ammoniacal nitrogen and DRP, prior to discharge to the Land Discharge and Treatment Area, as specified in Condition 17.

2.6.1.1 Soluble Carbonaceous Biochemical Oxygen Demand (scBOD)

Figure 2-2 and Figure 2-3 demonstrate full compliance in terms of scBOD against consent limits for the combined effluent from Ponds A and B.

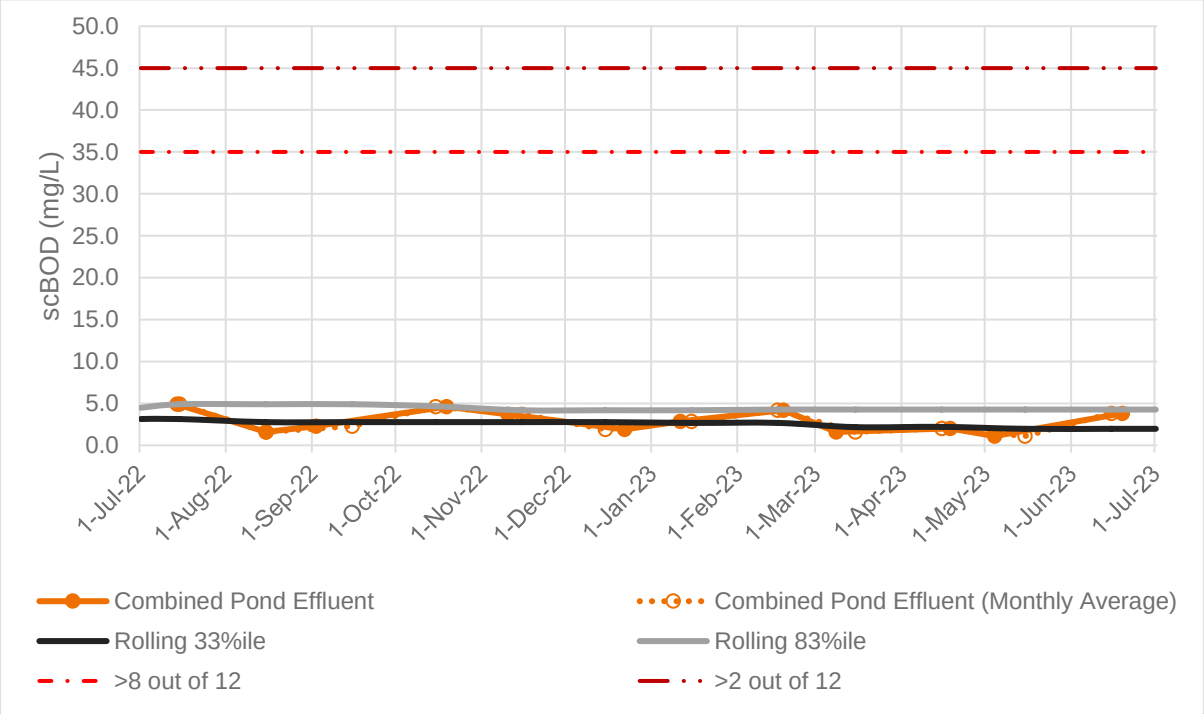

Figure 2-2 scBOD Concentration in Combined Pond Effluent

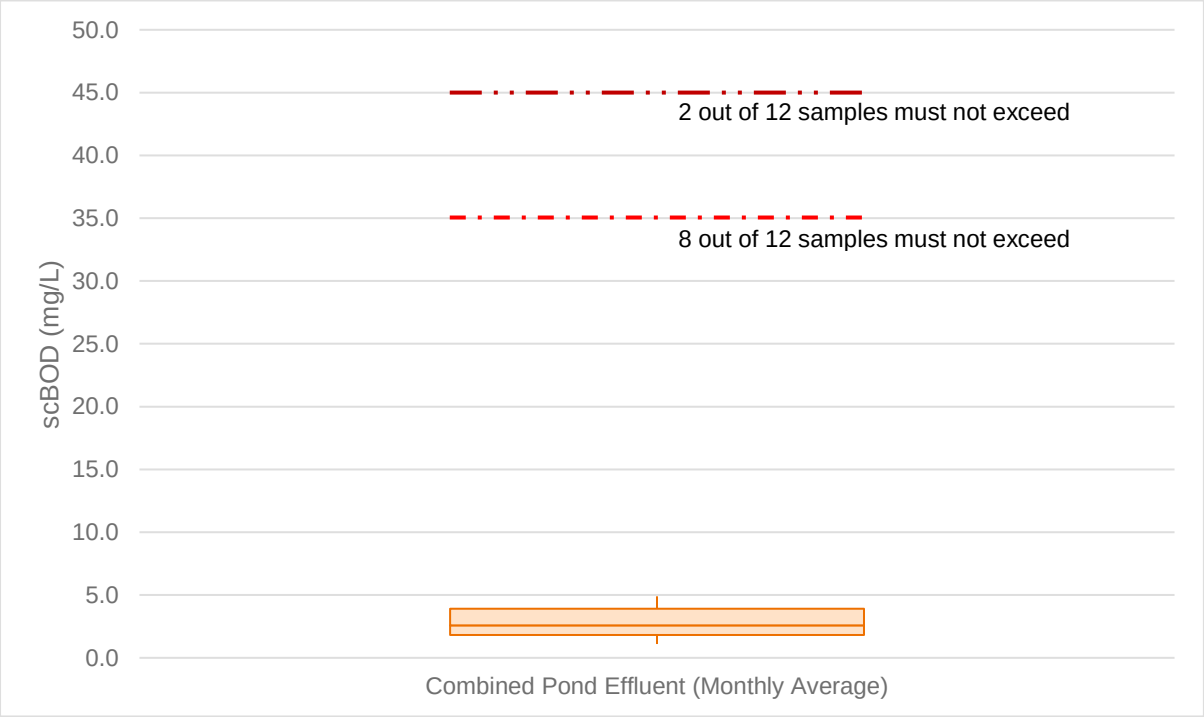

Figure 2-3 scBOD Concentration in Combined Pond Effluent – Box plot

2.6.1.2 Total Suspended Solids (TSS)

Figure 2-4 and Figure 2-5 demonstrate full compliance in terms of TSS against permit limits for the combined effluent from Ponds A and B.

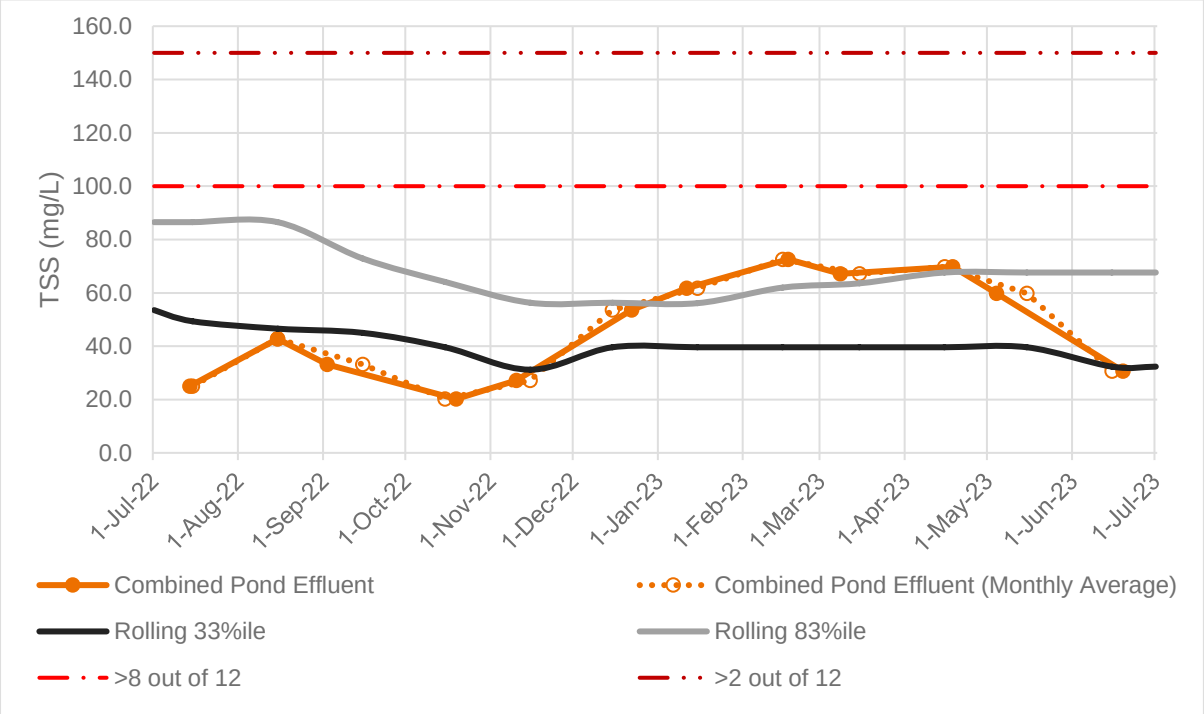

Figure 2-4 TSS Concentration in Combined Pond Effluent

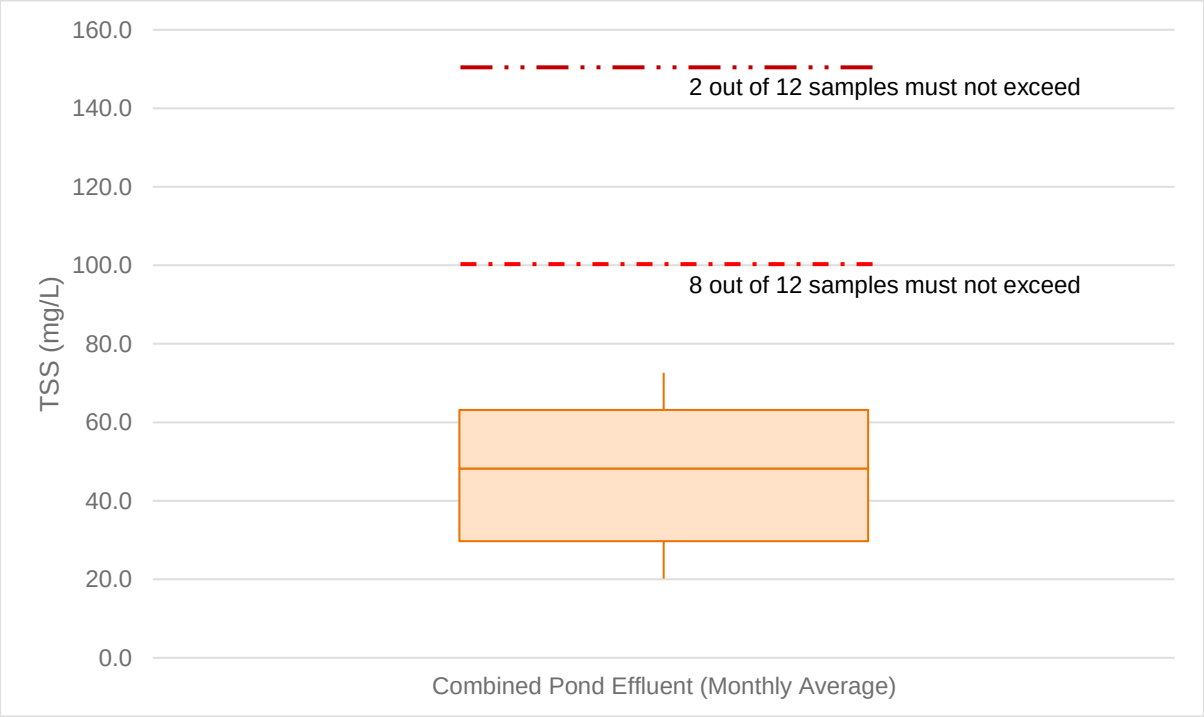

Figure 2-5 TSS Concentration in Combined Pond Effluent – Box Plot

2.6.1.3 Faecal Coliforms

Figure 2-6 and Figure 2-7 show overall compliance with the faecal coliform limits with only 3 exceedances out of 12 samples of the lower limit (50,000 cfu/100mL) and 1 exceedance out of 12 samples of the upper limit (120,000 cfu/100mL) during this period for the combined effluent from Ponds A and B.

The exceedance of the upper limit occurred on 15 February 2023 when the effluent Faecal coliform concentration was 570,000 cfu/100mL. This was due to bypassing of the aeration lagoon to allow removal of sand and grit that had accumulated in the lagoon.

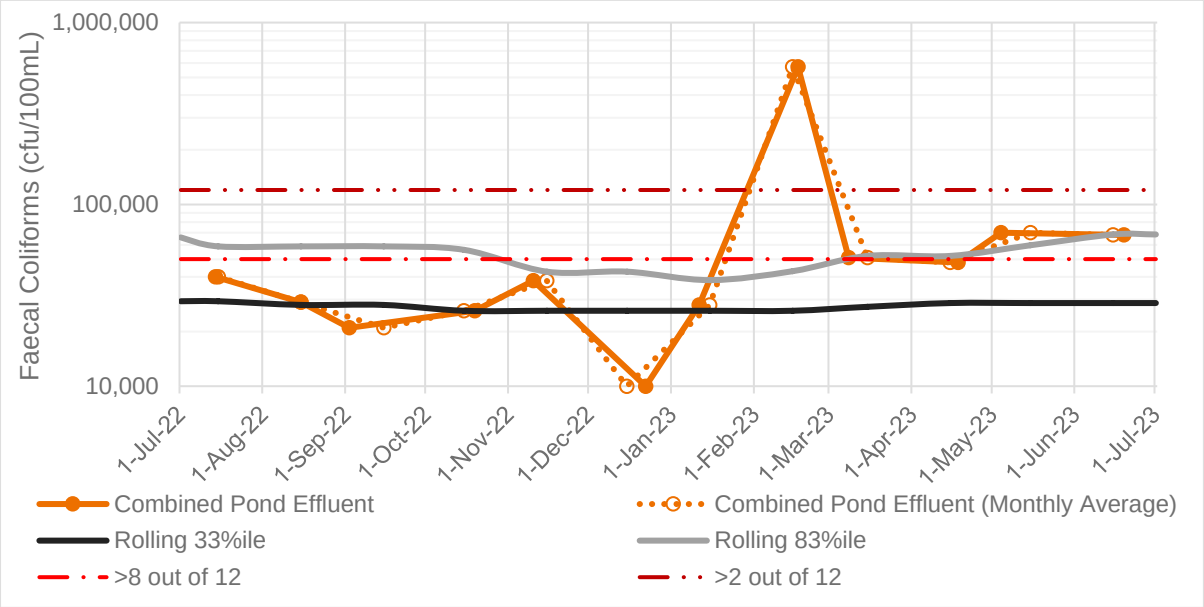

Figure 2-6 Faecal Coliforms in Combined Pond Effluent

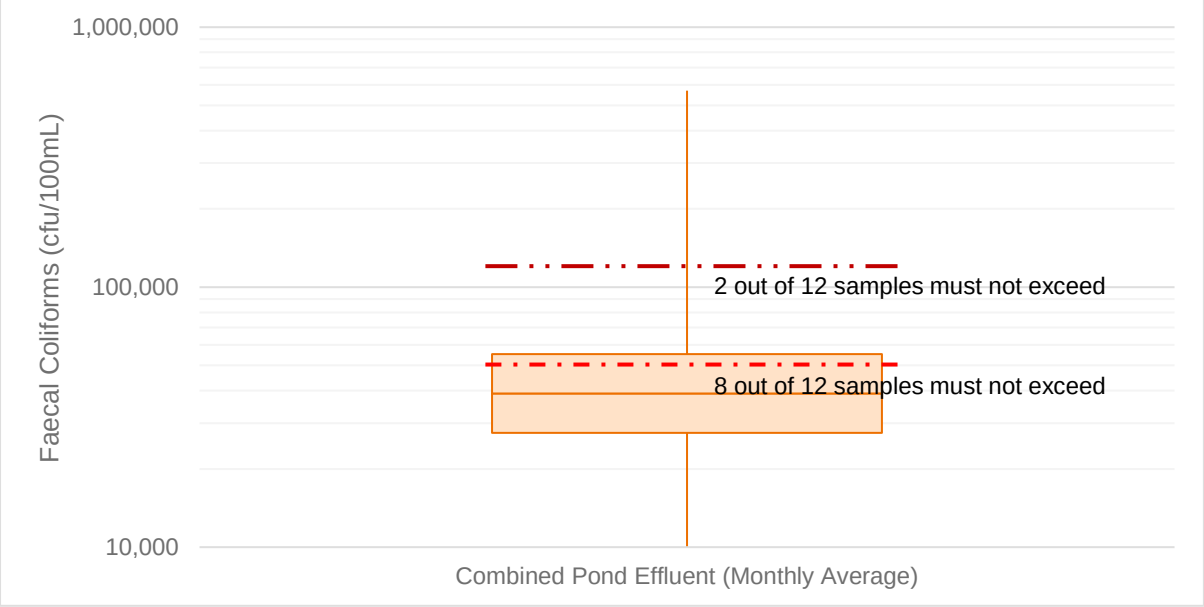

Figure 2-7 Faecal Coliforms in Combined Pond Effluent – Box Plot

2.6.1.4 Ammoniacal Nitrogen

Figure 2-8 and Figure 2-9 shows overall compliance for the Ammoniacal Nitrogen from the combined effluent from Ponds A and B, with three exceedances of the lower limit at 23 mg/L and no exceedances of the upper limit of 30 mg/L.

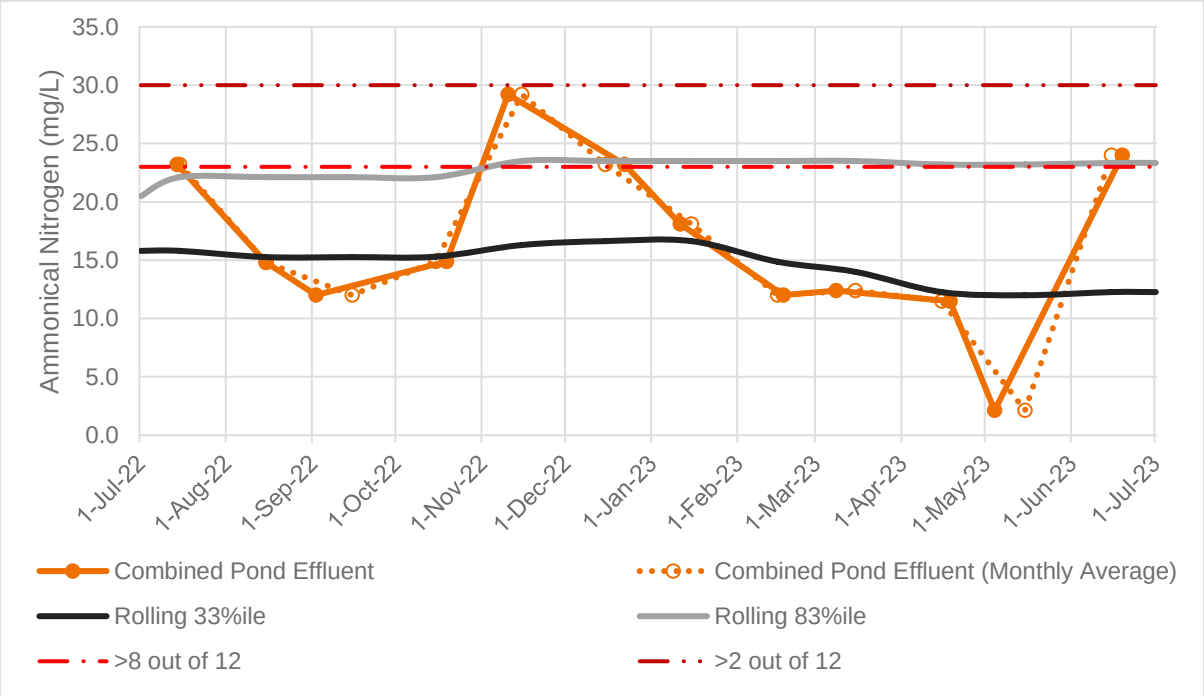

Figure 2-8 Ammoniacal Nitrogen in Combined Pond Effluent

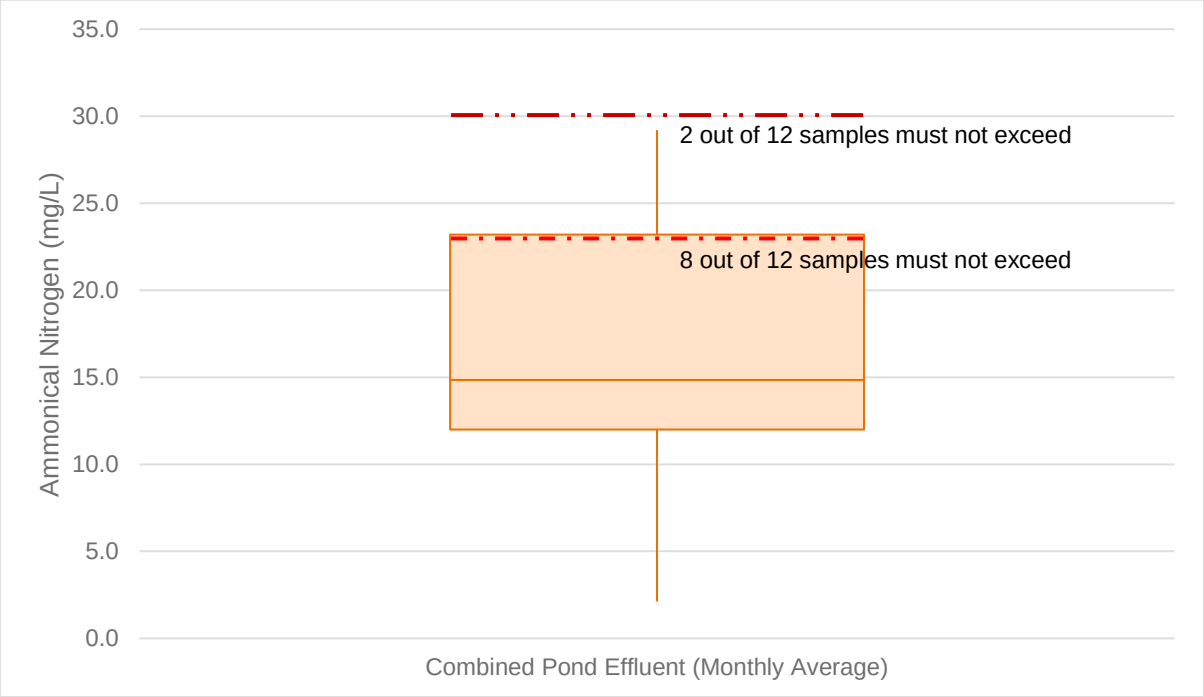

Figure 2-9 Ammoniacal Nitrogen in Combined Pond Effluent – Box Plot

2.6.1.5 Dissolved Reactive Phosphorus

Figure 2-10 and Figure 2-11 demonstrate compliance with the DRP conditions, with no exceedances of the lower limit for the combined effluent from Ponds A and B.

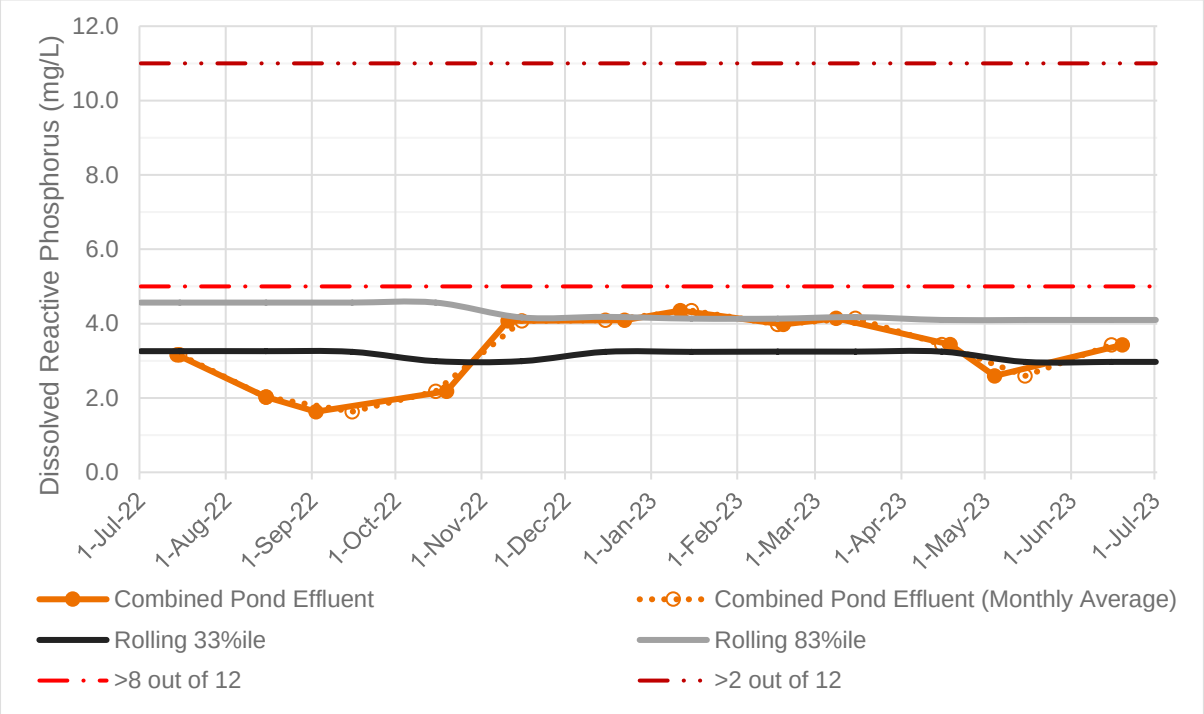

Figure 2-10 Dissolved Reactive Phosphorus in Combined Pond Effluent

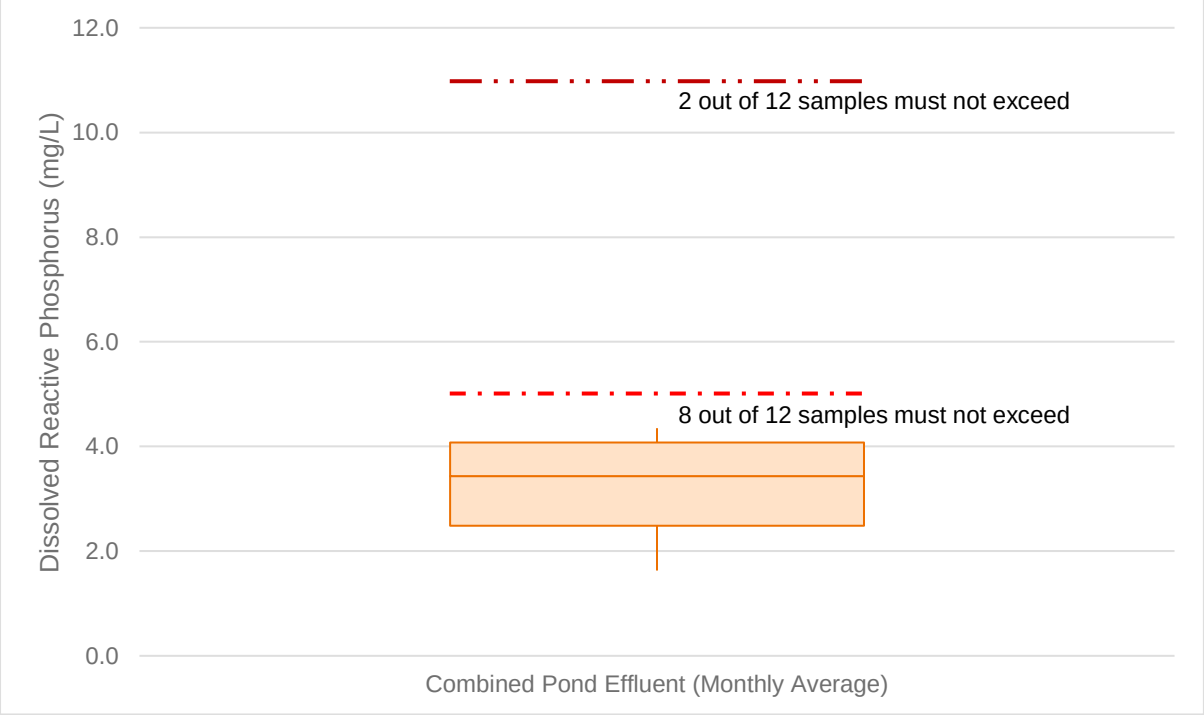

Figure 2-11 Dissolved Reactive Phosphorus in Combined Pond Effluent – Box Plot

2.7 Ground Water and Spring Water Quality

Condition 18 specifies monitoring of ground water levels and water quality at bores 1, 2, 3, 4, 5, 6, 7 and water quality in the spring, for the following parameters:

- BOD_5 (mg/L)
- Chloride (mg/L)
- E. coli (cfu/100mL)
- Ammonia (mg/L)
- Nitrate (mg/L)
- Nitrite (mg/L)
- Dissolved Reactive Phosphorus (mg/L)
- Total Phosphorus (mg/L)
- Temperature (°C)
- pH
- Conductivity (µs/cm at 25°C)

2.7.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Monitoring of Groundwater and Spring Water	18	

Full bore monitoring records are provided in Appendix C.

2.8 Ground Water E. coli and Soluble Inorganic Nitrogen Content

Condition 19 specifies the following limits for water quality monitoring in bores 4 and 5 (from Condition 18):

- E. coli (100 MPN/100ml (100cfu/100mL))
- Soluble Inorganic Nitrogen (11.3mg/L as N)

Condition 20 requires KCDC to notify GWRC of a breach of Condition 19, within 24 hours, and provide an investigation report within 10 working days.

2.8.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
E. coli and Soluble Inorganic Nitrogen in Bores 4 & 5	19 & 20	

Table 2-1 demonstrates that sampling of bores 4 and 5 were in full compliance with the limits stated by condition 19.

KCDC laboratory monitors *E. coli* levels using the Standard Method 9222D membrane filtration for faecal coliforms. If faecal coliforms are present, the filter is then transferred onto a media to determine if the faecal colonies are *E. coli* (Standard Methods 9222I). Where there is a dash (-) in the data, there were not faecal coliforms present, thus there was not transfer to the media to determine *E. coli* as no colonies were present.

Table 2-1 Water Quality – Bore 4 and 5

Date	Bore OT4		Bore OT5	
	E.coli (cfu/100ml)	Soluble Inorganic Nitrogen (mg/L)	E.coli (cfu/100ml)	Soluble Inorganic Nitrogen (mg/L)
28-Jul-22	<1	2.48	1	5.63
9-Aug-22	<1	3.33	2	2.93
12-Sep-22	<1	2.4	<1	5.86
14-Oct-22	<1	3.47	<1	5.49
2-Nov-22	<1	2.64	<1	4.65
1-Dec-22	1	1.92	<1	3.09
19-Jan-23	<1	1.84	1	3.6
23-Feb-23	<1	2.67	2	2.44
10-Mar-23	21	2.11	<1	2.24
4-Apr-23	<1	1.94	<1	1.66

There was no breach during this compliance period, so no notification or report was required.

2.9 Groundwater Attenuation Equilibrium

Condition 21 requires KCDC to monitor, and report on water quality data from bores 4, 5 and surface water spring, against contaminant trigger levels.

The consent holder has to undertake an investigation into whether the attenuation equilibrium of the soil has been breached if three consecutive monitoring rounds reach the following limits:

- Total Nitrogen (11.3 mg/L)
- Dissolved Reactive Phosphorus (0.1 mg/L)
- *E. coli* (100 cfu/100mL)

2.9.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Attenuation Equilibrium, Bores 4, 5 and Spring	21	
Total Nitrogen		🟢
Dissolved Reactive Phosphorus		🔴 (bores 4 & 5)
E. coli		🟢

The specified data under Condition 21 is provided in Table 2-2.

Table 2-2 Bore 4, 5 and Spring Water Quality

Date	Bore OT4			Bore OT5			Spring		
	TN (mg/L)	DRP (mg/L)	*E.coli (cfu/100 ml)*	TN (mg/L)	DRP (mg/L)	*E.coli (cfu/100 ml)*	TN (mg/L)	DRP (mg/L)	*E.coli (cfu/100 ml)*
28-Jul-22	2.1	0.179	<1	5.4	0.232	1	2	<0.05	<1
9-Aug-22	3.9	0.164	<1	3.8	0.178	2	1.8	<0.05	<1
12-Sep-22	2.4	0.161	<1	6.2	0.205	<1	0.9	<0.05	1
14-Oct-22	2.6	0.189	<1	4.5	0.172	<1	1.1	<0.05	<1
2-Nov-22	5.1	0.173	<1	6.8	0.183	<1	1.7	<0.05	5
1-Dec-22	3.4	0.19	1	4.6	0.199	<1	1.5	<0.05	7
19-Jan-23	2.1	0.183	<1	4.1	0.191	1	1.2	<0.05	590
23-Feb-23	3.6	0.190	<1	3.3	0.193	2	1.7	<0.05	<1
10-Mar-23	3	0.183	21	2.9	0.179	<1	0.8	<0.05	6
4-Apr-23	2.4	0.207	<1	2.6	0.183	<1	0.8	<0.05	<1
24-May-23	2.5	0.197	<1	4.1	0.159	7	1.4	<0.05	<1
22-Jun-23	2.6	0.215	<1	4.7	0.170	1	0.9	<0.05	10
27-Jul-23	2.8	0.216	<1	2.4	0.172	2	1.2	<0.05	<1

The following sub-sections discuss the compliance with the attenuation equilibrium in Bores 4 and 5, and the Spring for Total Nitrogen (TN), Dissolved Reactive Phosphorus (DRP), and E. Coli, as specified in Condition 21.

2.9.1.1 Total Nitrogen

The monitoring activity was compliant with the Total Nitrogen attenuation equilibrium limit for Bore 4, Bore 5, and the Spring water quality for the July 2022 to June 2023 period.

2.9.1.2 E.Coli

The monitoring activity was compliant with the E. Coli attenuation equilibrium limit for Bore 4, Bore 5, and the Spring water quality for the July 2022 to June 2023 period.

The E. Coli trigger level was exceeded in the spring water sample in only 1 out of 3 consecutive samples. The accuracy of this sample is uncertain, and appears to be erroneous due to the magnitude of difference compared with other samples, however, it could be due to the excessive

drying up of the spring water during summer season. If this occurs again, then further investigations will be required, however at this stage no action is considered necessary.

There was no incident where the trigger limit was reached for 3 consecutive samples.

2.9.1.3 Dissolved Reactive Phosphorus

For this 2022/23 fiscal year period. the monitoring activity was non-compliant with the DRP attenuation equilibrium limit in Bores 4 and 5. This has been a recurring issue since the new monitoring programme was implemented in 2016. A review of the impact of this discharge and improvements to the LDTA and the WWTP are provided in the Stantec Groundwater DRP Investigation Report 2023. A number of solutions to the non-compliant DRP were identified for further investigation.

3 Various Items

3.1 Land Discharge and Treatment Area (LDTA) Optimisation Study and Report

Since 2016 KCDC has been in the process of fulfilling the requirements under conditions 3 and 4, for the assessment and optimisation of the Land Disposal Treatment Area in collaboration with Nga Hapu o Ōtaki.

3.1.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
LDTA Optimisation Study & Report	3 & 4	

- The Optimisation Study Report (Condition 3) was completed in February 2018.
- The Optimisation Study (Condition 3) was prepared by Cardno in collaboration with KCDC and NHoŌ, such that the collaboration required under Condition 4 had already occurred prior to the completion of the Optimisation Study in Condition 3.
- The Optimisation Study was approved by GWRC in 2019.

3.2 Implementation of Changes to LDTA

Condition 5 requires KCDC to implement changes to the LDTA as per Condition 4.

3.2.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
LDTA Optimisation Implementation	5	

The LDTA changes have been implemented and are operational.

3.3 Operations and Maintenance Manual

Conditions 6-8 refer to the Operations and Maintenance Manual (OMM) for the Ōtaki WWTP. The OMM needs to be updated once the LDTA Optimisation Report has been approved, or at least 3-yearly from 2019 onwards.

3.3.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Operations and Maintenance Manual	6, 7 & 8	

No reviews nor updates are required to the OMM this 2022/23 fiscal year.

3.4 Performance and Maintenance of the Distribution System

Condition 24 refers to the operation and maintenance of the distribution system. For infiltration of the discharge area is maintained, KCDC need to ensure the following:

- Even distribution across the discharge area, and that effluent is applied to no less than 75% of the area
- Ensuring there is no ponding in the distribution zones prior to next application, and that any ponding does not exceed 24 hours under dry conditions.
- There is no surface flow redistribution within the discharge area of more than 10m under dry weather flow conditions

3.4.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Performance and Maintenance of the Distribution System	24	

The new LDTA distribution system has been in use - since 2020/21 fiscal year demonstrating successful reduction of ponding and allowing better control and flexibility of the discharge distribution.

Refer to Appendix E for the photographs of the LDTA after application.

Additionally, the operations team can now optimise the distribution with the following tools:

- Automated lateral distribution selection system and ability to manually change order of distribution events
- Ability to utilise historical data, and optimise future operation based on this more accurate history

3.5 Reserve Area for Effluent Discharge

Condition 27 requires maintaining a 50% (5.45 hectares) reserve land discharge and treatment area in close proximity to the LDTA for future disposal capacity.

3.5.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Reserve Area for Effluent Discharge	27	

KCDC continues to own the field adjacent to the LDTA with a total area of 7.8 hectares, which exceeds the consent requirement. The OWWTP Manager confirmed during the Community Liaison Group (CLG) meeting on 21 March 2023 that the reserve area is currently not in use and is bunded between the current LDTA boundary and is still currently leased.

In terms of high rainfall options when the storm basin is full, for example during Cyclone Gabrielle, the Council would discharge more treated water to the existing LDTA.

3.6 Inflow and Infiltration Investigations, Works and Reporting

Condition 28 requires KCDC to continue to investigate and implement ways and means of minimising stormwater inflow and infiltration (I/I) into the sewerage system. Condition 43 (annual report) requires that every 3 years KCDC provides the following:

- Details of and the status of I/I work for the previous 3 years.
- an assessment of the effectiveness of the infiltration and inflow works completed to date including whether I/I has reduced; and
- I/I work scheduled for the next 3 years in Otaki including specifying the sub-catchments where CCTV inspections and pressure testing (if applicable) and pipe renewal/rehabilitation that shall be carried out.

3.6.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Inflow and Infiltration Investigations, Works and Reporting	28	

No updates to I&I investigations, performance, or works are required this 2022/23 fiscal year.

3.7 Odour Management

Conditions 29 to 32 refer to odour management at the site.

3.7.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Odour Management	29, 30, 31 & 32	

There have been no odour complaints related to the Ōtaki WWTP during the compliance period.

No alterations to the plant or process have occurred during the compliance period.

Foul air from sludge handling is treated as required by the consent.

Screenings are managed as required by the consent.

3.8 Planting within the LDTA

Conditions 33 to 35 require:

- The vegetation within the LDTA shall cover a minimum of 80% of the area. suitable planting within the LDTA.
- Invasive weed species within the land discharge and treatment area are minimised.
- Dead vegetation within the LDTA shall be replanted within 12 months.

3.8.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Planting within the Land Discharge & Treatment Area	33, 34 & 35	

KCDC continues to maintain the LDTA grass area healthy and free of weeds.

3.9 Perimeter Planting

Condition 36 requires suitable perimeter planting.

3.9.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Perimeter Planting	36	

The perimeter planting is described below:

- Manuka planted along the northern and western boundaries.
- Harakeke planted along the northern and eastern boundaries.

3.10 Fencing and Signage

Condition 37 requires perimeter fencing and signage.

3.10.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Fencing and Signage	37	

The site is fully fenced complete with signage installed on the visible perimeter fencing.

3.11 Iwi Consultation

Condition 38 and 39 require KCDC to invite Ngā Hapu o Ōtaki (NHoŌ) to a yearly briefing and informing NHoŌ of any changes on site.

3.11.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Iwi Consultation	38 & 39	

The Council met with Caleb Royal from NHoŌ to discuss the Ōtaki WWTP consents and activities on 21 March and again on 9 May 2023. At the 9 March meeting, the Council agreed to meet with NHoŌ quarterly and forward quarterly reporting prior to the meeting. The hui have been informal in nature, and have provided NHoŌ with the opportunity to engage with the Council on all matters relating to the Ōtaki WWTP and exercise of the resource consents.

The Council presented the findings of the draft Annual Compliance Report to NHoŌ at a meeting on 21 September 2023 and discussed the findings of the DRP investigation. The Council agreed to

implement several recommendations and actions from the report by Stantec to improve DRP:

- Lining the aeration pond (scheduled for 2023-24)
- Preparing and implementing a planting plan for the LDTA to remove phosphorous from the soil (focusing on kanuka and manuka planting, this is what iwi prefers)
- Investigating options to import some soil to place on thinner areas of the LDTA.

The Council will report to NHoŌ on progress at the next hui scheduled to coincide with Q1 reporting in November 2023.

The Council proposed number of plans that will improve the performance of the wastewater network and reduce localised sewer overflows in July 2022. An important project involves improving the downstream network from the Wastewater Pumpstation (OWPS13) near the spring.

Table 3-1 below summarises the plans presented to the iwi and the corresponding actions.

Table 3-1 Plans to Improve the Wastewater Network

Plan	Action
Investigate sites near the Ngatoko Stream Mouth to install a monitoring well for nutrients.	The Council has installed four monitoring bores in relation to the reconsenting of the Ōtaki Water Supply network (two on Tasman Road at the water treatment plant to monitor the Tasman Road Wetland and two on Rangiuru Road by the spring and at the water treatment plant). The bores will be used for monitoring groundwater levels through the exercise of the water take resource consents. The Council will discuss further with NHoŌ whether these bores could be used for water quality monitoring as part of the overall monitoring programme for the Ōtaki WWTP.
Utilise the proposed monitoring well to be located near the spring (under the Tasman Rangiuru Water Abstraction Consent for Ōtaki Water Supply) for monitoring water quality in the groundwater. This would be in conjunction with monitoring the spring.	Like above, any decisions on additional monitoring will be made as part of DRP discussions following the outcome of the DRP investigation.
Widen the scope of the NHoŌ monitoring of the Ngatoko stream health to include potential effects from the Ōtaki WWTP.	The Council has discussed further monitoring as part of the DRP investigation. Further decisions on monitoring Ngatoko Stream health can be made following the results of this investigation.
Organise NHoŌ site visit to the Ōtaki WWTP to see the LTDA in action.	The Council has invited NHoŌ to visit the site and see the LTDA in action. This invitation was not taken up within this reporting period, but remains open to NHoŌ (and was accepted on 22 September 2023).
Keep NHoŌ updated on the nutrient balance study.	Like above, The Council is waiting on the outcome of the DRP investigations
Provide a range of proposals for improving the wastewater network downstream of OWPS13 to the NHoŌ board to consider.	NHoŌ was given this proposal during the rising main option meeting, but NHoŌ rejected the rising main and the landscaping around the OSP-013.

3.12 Community Liaison Group

Condition 40 requires the establishment of a community liaison group for the Ōtaki WWTP.

3.12.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Community Liaison Group	40	

The Council established the Ōtaki WWTP Community Liaison Group (CLG) in February/March 2023. The Council invited all adjoining neighbours to join the CLG, which included 22 landowners. The Council also invited NHoŌ, the Ōtaki Community Board, the Department of Conservation (DoC), Regional Public Health (RPH) and Greater Wellington Regional Council (GWRC) to join the CLG. NHoŌ declined the invitation as the Council meets with the hapu on a one-on-one basis. DoC also declined the invitation as staff are focusing resources on the Paraparaumu WWTP CLG. The Ōtaki Community Board, RPH, GWRC and several adjoining landowners accepted the invitation to join the CLG.

The first CLG meeting was held in Ōtaki on 21 March 2023. At the meeting, the CLG agreed that the Council will chair the CLG meetings until otherwise agreed. In general, the group should meet annually to coincide with the Annual Reporting and GWRC Compliance Assessments.

The Terms of Reference (ToR)were approved, but it was agreed during the CLG meeting that the ToR were to be updated to reflect membership and the open invitation to iwi and DoC.

3.13 Complaints

Condition 41 requires KCDC to maintain a permanent record of complaints relating to the Ōtaki WWTP and LDTA.

3.13.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Complaints	41	

No complaints have been received during the compliance period.

However, during the CLG meeting on 21 March 2023 a neighbour raised a matter regarding the presence of lots of mosquitoes at the southerly end of his property which he believes are coming from the Ōtaki WWTP.

The Ōtaki WWTP Manager and the Senior Asset Planning Engineer of the Council confirmed that ponding is not allowed on the LDTA. There might be a bit of ponding just after treated wastewater is sprayed but this is temporary. It is therefore unlikely that mosquitoes are breeding in said area. The National Public Health Service representative noted during the CLG meeting that the Environmental

Health Officers can investigate the source of the mosquitoes (considered a nuisance) under s.29 of the Health Act.

3.14 Incident Notification

Condition 42 requires KCDC to notify GWRC of any incident which results, or could result in, an adverse effect on the environment beyond the boundary of the consent holder's site.

3.14.1 COMPLIANCE

Conditions to Resource Consent	Condition	Compliance
Incident Notification	42	

No further incidents occurred within the compliance reporting period that was not already reported through the quarterly reports.

APPENDICES

Appendix A Flow and Sampling Records

SampleDate	InFlow	EffFlow
1-Jul-22	1,810	2,096
2-Jul-22	1,765	1,803
3-Jul-22	1,750	2,028
4-Jul-22	1,766	1,837
5-Jul-22	1,665	1,719
6-Jul-22	1,769	1,953
7-Jul-22	1,732	1,811
8-Jul-22	1,654	1,407
9-Jul-22	2,168	2,544
10-Jul-22	1,955	1,824
11-Jul-22	2,010	1,101
12-Jul-22	1,875	2,671
13-Jul-22	2,870	2,799
14-Jul-22	2,460	2,801
15-Jul-22	2,389	2,801
16-Jul-22	2,352	2,801
17-Jul-22	2,214	1,204
18-Jul-22	2,035	2,801
19-Jul-22	2,029	2,581
20-Jul-22	2,070	2,515
21-Jul-22	3,662	1,779
22-Jul-22	4,797	2,801
23-Jul-22	3,364	2,801
24-Jul-22	2,964	2,801
25-Jul-22	2,619	2,801
26-Jul-22	2,890	2,801
27-Jul-22	2,840	2,801
28-Jul-22	2,627	2,801
29-Jul-22	3,152	2,801
30-Jul-22	2,891	2,801
31-Jul-22	3,967	397
1-Aug-22	3,429	2,801
2-Aug-22	3,087	2,902
3-Aug-22	2,813	2,813
4-Aug-22	3,009	2,801
5-Aug-22	2,781	2,801
6-Aug-22	2,525	2,801
7-Aug-22	2,527	2,801
8-Aug-22	3,869	2,801
9-Aug-22	3,833	2,801
10-Aug-22	2,963	2,801
11-Aug-22	2,852	2,801
12-Aug-22	2,548	2,801
13-Aug-22	2,386	2,801
14-Aug-22	2,268	2,801
15-Aug-22	2,152	2,801
16-Aug-22	2,018	2,801
17-Aug-22	1,937	2,801
18-Aug-22	1,916	2,801
19-Aug-22	2,670	2,801
20-Aug-22	4,080	2,801
21-Aug-22	4,520	2,801
22-Aug-22	5,513	2,801
23-Aug-22	4,707	2,801
24-Aug-22	4,195	2,801
25-Aug-22	3,585	2,801
26-Aug-22	3,331	2,801
27-Aug-22	3,692	2,801
28-Aug-22	3,762	2,801
29-Aug-22	3,689	2,801
30-Aug-22	4,033	2,801
31-Aug-22	3,818	2,801
1-Sep-22	3,628	2,801
2-Sep-22	3,479	2,801
3-Sep-22	3,433	2,801
4-Sep-22	3,666	2,801
5-Sep-22	3,800	2,801
6-Sep-22	3,596	2,801
7-Sep-22	3,462	2,801
8-Sep-22	3,366	2,801
9-Sep-22	3,315	2,801
10-Sep-22	3,219	2,801
11-Sep-22	3,233	2,801
12-Sep-22	3,341	2,801
13-Sep-22	3,329	2,801
14-Sep-22	3,245	2,801
15-Sep-22	3,294	2,801
16-Sep-22	3,223	2,801
17-Sep-22	3,129	2,801
18-Sep-22	3,139	2,801
19-Sep-22	3,077	2,801
20-Sep-22	2,962	2,801
21-Sep-22	2,973	2,801
22-Sep-22	2,975	2,801
23-Sep-22	3,025	2,801
24-Sep-22	2,908	2,801
25-Sep-22	3,074	2,801
26-Sep-22	3,007	2,801
27-Sep-22	3,120	2,801
28-Sep-22	3,070	2,801
29-Sep-22	3,007	2,801
30-Sep-22	3,263	2,801
1-Oct-22	3,654	2,801
2-Oct-22	3,466	2,801
3-Oct-22	3,484	2,801
4-Oct-22	3,311	2,801
5-Oct-22	3,255	2,801
6-Oct-22	3,117	2,801
7-Oct-22	3,102	2,801
8-Oct-22	3,141	2,801
9-Oct-22	3,302	2,801
10-Oct-22	3,210	2,801
11-Oct-22	3,131	2,801
12-Oct-22	3,193	2,801
13-Oct-22	3,374	2,801
14-Oct-22	3,680	2,801
15-Oct-22	3,637	2,801
16-Oct-22	3,541	2,801

SampleDate	InFlow	EffFlow
17-Oct-22	3,593	2,801
18-Oct-22	3,414	2,801
19-Oct-22	3,411	2,801
20-Oct-22	3,390	2,801
21-Oct-22	3,164	2,801
22-Oct-22	2,933	2,801
23-Oct-22	3,001	2,801
24-Oct-22	1,498	2,801
25-Oct-22	1,564	2,801
26-Oct-22	1,425	2,801
27-Oct-22	1,435	2,801
28-Oct-22	1,479	2,801
29-Oct-22	1,397	2,801
30-Oct-22	1,413	2,801
31-Oct-22	1,764	2,801
1-Nov-22	1,692	2,801
2-Nov-22	1,620	2,053
3-Nov-22	1,516	2,030
4-Nov-22	1,583	2,039
5-Nov-22	1,563	1,568
6-Nov-22	1,551	1,377
7-Nov-22	1,767	1,344
8-Nov-22	2,390	1,279
9-Nov-22	1,944	1,159
10-Nov-22	1,451	1,192
11-Nov-22	1,438	852
12-Nov-22	1,439	1,506
13-Nov-22	1,409	1,413
14-Nov-22	1,506	1,395
15-Nov-22	1,462	1,331
16-Nov-22	1,408	1,266
17-Nov-22	1,414	1,234
18-Nov-22	1,524	1,641
19-Nov-22	1,749	2,544
20-Nov-22	2,477	2,711
21-Nov-22	1,706	2,107
22-Nov-22	1,777	2,061
23-Nov-22	1,938	2,226
24-Nov-22	1,966	2,369
25-Nov-22	2,336	2,197
26-Nov-22	1,934	1,808
27-Nov-22	1,801	1,671
28-Nov-22	1,992	1,768
29-Nov-22	1,868	1,302
30-Nov-22	1,692	2,276
1-Dec-22	1,737	1,973
2-Dec-22	1,878	1,446
3-Dec-22	1,668	1,803
4-Dec-22	1,745	1,215
5-Dec-22	1,622	1,078
6-Dec-22	1,587	1,724
7-Dec-22	1,551	1,441
8-Dec-22	1,516	835
9-Dec-22	1,602	1,578
10-Dec-22	1,634	1,831
11-Dec-22	1,725	1,746
12-Dec-22	1,708	1,732
13-Dec-22	1,568	1,617
14-Dec-22	1,554	1,108
15-Dec-22	1,488	1,625
16-Dec-22	1,521	1,321
17-Dec-22	1,764	929
18-Dec-22	2,169	1,944
19-Dec-22	1,780	1,692
20-Dec-22	1,709	2,642
21-Dec-22	1,687	1,686
22-Dec-22	1,630	1,322
23-Dec-22	1,746	1,914
24-Dec-22	1,763	1,978
25-Dec-22	1,656	1,775
26-Dec-22	1,721	1,506
27-Dec-22	1,657	1,426
28-Dec-22	1,598	1,390
29-Dec-22	1,532	1,289
30-Dec-22	1,526	1,265
31-Dec-22	1,511	996
1-Jan-23	1,474	665
2-Jan-23	1,510	1,497
3-Jan-23	1,488	1,384
4-Jan-23	1,471	1,295
5-Jan-23	1,408	1,217
6-Jan-23	2,016	1,440
7-Jan-23	1,721	1,861
8-Jan-23	1,691	1,085
9-Jan-23	1,654	1,133
10-Jan-23	1,524	1,582
11-Jan-23	1,542	1,621
12-Jan-23	1,523	1,264
13-Jan-23	1,523	1,826
14-Jan-23	1,565	2,081
15-Jan-23	1,548	1,401
16-Jan-23	1,496	1,470
17-Jan-23	1,423	1,269
18-Jan-23	1,409	1,187
19-Jan-23	1,409	1,128
20-Jan-23	1,415	1,167
21-Jan-23	1,424	1,164
22-Jan-23	1,459	1,174
23-Jan-23	1,529	1,197
24-Jan-23	1,397	1,199
25-Jan-23	1,345	1,102
26-Jan-23	1,331	1,125
27-Jan-23	1,545	1,009
28-Jan-23	1,687	1,684
29-Jan-23	1,613	1,260
30-Jan-23	1,498	2,078
31-Jan-23	1,446	1,782
1-Feb-23	1,472	2,131
2-Feb-23	1,456	1,859
3-Feb-23	1,540	1,667
4-Feb-23	1,541	1,566
5-Feb-23	1,700	1,442
6-Feb-23	1,701	1,741
7-Feb-23	1,621	1,624
8-Feb-23	1,551	1,434
9-Feb-23	1,483	1,274
10-Feb-23	1,460	793

SampleDate	InFlow	EffFlow
11-Feb-23	1,457	802
12-Feb-23	1,462	1,541
13-Feb-23	1,396	1,009
14-Feb-23	1,483	602
15-Feb-23	1,663	526
16-Feb-23	1,912	1,780
17-Feb-23	1,732	2,248
18-Feb-23	1,822	1,242
19-Feb-23	1,742	1,044
20-Feb-23	1,549	948
21-Feb-23	1,460	2,519
22-Feb-23	1,493	1,876
23-Feb-23	1,598	1,476
24-Feb-23	1,601	1,338
25-Feb-23	1,648	1,034
26-Feb-23	1,650	2,032
27-Feb-23	1,554	1,648
28-Feb-23	1,507	1,582
1-Mar-23	1,509	1,351
2-Mar-23	1,440	1,332
3-Mar-23	1,484	1,273
4-Mar-23	1,480	1,374
5-Mar-23	1,550	1,060
6-Mar-23	1,497	1,363
7-Mar-23	1,464	1,227
8-Mar-23	1,405	1,286
9-Mar-23	1,480	1,255
10-Mar-23	1,535	1,398
11-Mar-23	1,618	1,366
12-Mar-23	1,579	1,304
13-Mar-23	1,614	1,445
14-Mar-23	1,645	1,445
15-Mar-23	1,619	1,441
16-Mar-23	1,587	1,371
17-Mar-23	2,288	438
18-Mar-23	921	1,560
19-Mar-23	1,014	1,182
20-Mar-23	1,495	453
21-Mar-23	1,231	1,271
22-Mar-23	999	1,015
23-Mar-23	1,169	958
24-Mar-23	822	764
25-Mar-23	854	980
26-Mar-23	1,266	1,089
27-Mar-23	1,222	1,086
28-Mar-23	821	905
29-Mar-23	885	764
30-Mar-23	935	356
31-Mar-23	1,500	1,322
1-Apr-23	1,644	1,062
2-Apr-23	1,644	1,483
3-Apr-23	1,845	1,612
4-Apr-23	1,683	2,132
5-Apr-23	1,630	1,714
6-Apr-23	1,565	1,605
7-Apr-23	1,543	1,309
8-Apr-23	1,730	1,604
9-Apr-23	1,615	1,385
10-Apr-23	1,612	1,458
11-Apr-23	1,647	1,772
12-Apr-23	1,716	2,253
13-Apr-23	2,238	2,351
14-Apr-23	2,068	2,246
15-Apr-23	1,850	1,622
16-Apr-23	1,751	1,824
17-Apr-23	1,707	1,637
18-Apr-23	1,601	1,573
19-Apr-23	1,546	1,751
20-Apr-23	2,905	2,801
21-Apr-23	2,449	2,801
22-Apr-23	2,244	2,527
23-Apr-23	4,684	2,801
24-Apr-23	2,928	2,801
25-Apr-23	2,575	2,801
26-Apr-23	2,389	2,801
27-Apr-23	2,100	2,801
28-Apr-23	1,991	2,801
29-Apr-23	1,911	2,641
30-Apr-23	1,880	2,124
1-May-23	1,832	1,900
2-May-23	1,689	1,753
3-May-23	1,654	1,633
4-May-23	1,795	2,585
5-May-23	4,158	2,801
6-May-23	2,829	2,386
7-May-23	2,638	2,326
8-May-23	2,493	2,801
9-May-23	2,242	2,801
10-May-23	2,087	2,801
11-May-23	2,283	2,801
12-May-23	2,067	2,081
13-May-23	2,001	2,735
14-May-23	1,995	2,303
15-May-23	1,868	1,995
16-May-23	1,809	1,821
17-May-23	1,776	1,722
18-May-23	1,726	1,666
19-May-23	1,689	1,633
20-May-23	1,745	1,770
21-May-23	1,976	2,196
22-May-23	2,073	2,215
23-May-23	1,968	2,062
24-May-23	1,847	1,407
25-May-23	1,799	1,258
26-May-23	1,697	1,133
27-May-23	1,625	1,036
28-May-23	1,630	1,030
29-May-23	1,761	1,084
30-May-23	1,600	1,223
31-May-23	1,986	1,407
1-Jun-23	1,827	1,311
2-Jun-23	1,701	1,224
3-Jun-23	1,890	1,153
4-Jun-23	1,872	1,211
5-Jun-23	1,819	1,170
6-Jun-23	1,840	820
7-Jun-23	1,744	1,428

SampleDate	InFlow	EffFlow
8-Jun-23	1,679	1,153
9-Jun-23	1,624	1,070
10-Jun-23	1,601	1,003
11-Jun-23	1,609	971
12-Jun-23	1,617	977
13-Jun-23	1,555	1,023
14-Jun-23	1,520	929
15-Jun-23	1,500	962

SampleDate	InFlow	EffFlow
16-Jun-23	1,494	971
17-Jun-23	1,472	952
18-Jun-23	1,454	907
19-Jun-23	1,515	970
20-Jun-23	1,453	890
21-Jun-23	1,461	1,000
22-Jun-23	1,509	1,002
23-Jun-23	1,404	869

SampleDate	InFlow	EffFlow
24-Jun-23	1,402	919
25-Jun-23	1,460	930
26-Jun-23	1,583	980
27-Jun-23	1,476	1,029
28-Jun-23	1,407	937
29-Jun-23	1,446	883
30-Jun-23	1,452	912

Appendix B Pond Effluent Quality

SampleDate	LogNo	BOD	SBOD	SCBOD	SSolids	DO	pH	AmmN	NitraN	DRP	TotalP	TN	FColi	EColi	NitriN
14/07/2022	223022	20.9	7	4.9	25	8.5	7.8	23.2	0.56	3.16	4.02	24	40,000	33,000	0.42
15/08/2022	223454	23.1	2.6	1.6	42.8	8.96	7.5	14.8	1.01	2.02	2.74	26	29,000	17,000	0.13
2/09/2022	223701	24.2	2.9	2.3	33.2	10.4	7.7	12	0.892	1.63	2.31	21	21,000	15,000	0.522
19/10/2022	224385	8.9	4.5	4.6	20.2	5.7	7.3	14.9	1.2	2.18	2.84	27	26,000	14,000	0.122
10/11/2022	224674	42.4	10.2	3.7	27.2	7.9	7.8	29.2	0.529	4.07	4.96	30	38,000	30,000	0.134
22/12/2022	225384	15.9	2.74	1.9	53.6	8.1	8.5	23.2	0.835	4.09	5.2	39	10,000	6,900	0.4
11/01/2023	230149	22.9	6.4	2.86	61.8	8.6	8.2	18.1	1.1	4.35	5.73	29	28,000	21,000	0.334
17/02/2023	230704	83.7	15.2	4.2	72.6	9.2	7.7	12	1.11	3.98	5.32	23	570,000	260,000	2.04
8/03/2023	231026	84.7	11.8	1.6	67.2	7.8	7.6	12.4	1.97	4.14	5.12	24	51,000	39,000	3.96
18/04/2023	231672	59.6	14	2	69.8	9.7	7.9	11.5	2.28	3.44	5.04	27	48,000	30,000	3.67
4/05/2023	231898	56.5	14.4	1.1	59.8	7.6	7.1	2.12	3.59	2.59	3.59	23	70,000	49,000	7.58
19/06/2023	232544	20.6	6	3.8	30.6	10.3	7.6	24	1.08	3.43	4.3	32	68,000	55,000	0.176

Appendix C Groundwater Effluent Quality

	Date	Sample ID	Bore Depth (m)	BOD (mg/L)	NH_4-N (mg/L)	NO_3-N (mg/L)	NO_2-N (mg/L)	DRP (mg/L)	TP (mg/L)	TN (mg/L)	fTN (mg/L)	Cl- (mg/L)	Faecal Colifrms (cfu / 100mL)	E. Coli (cfu / 100mL)	Sample Temp (°C)	pH	Cond (µS/cm)
Bore 1	28/07/22	KAPITI-3324	3.7	1	0.023	0.578	<0.015	<0.05	<0.05	0.4	0	10.2	1	1	13.7	6.5	105
Bore 1	9/08/22	KAPITI-3366	3.3	0.6	<0.015	0.627	<0.015	<0.05	<0.05	1	0	10.2	<1	<1	13.3	6.4	105
Bore 1	12/09/22	KAPITI-3524	3.97	0.1	<0.015	0.513	<0.015	<0.05	<0.05	0.6	0	12.8	<1	<1	12.5	6.06	99.49
Bore 1	14/10/22	KAPITI-3659	4.25	0.6	<0.015	0.469	<0.015	<0.05	<0.05	<0.5	0	7	<1	<1	13.2	5.9	85
Bore 1	2/11/22	KAPITI-3749	4.34	0.9	<0.015	0.396	<0.015	<0.05	<0.05	2.3	0	8.2	<1	<1	11.7	6.34	83.04
Bore 1	1/12/22	KAPITI-3856	3.96	0.2	<0.015	0.47	<0.015	<0.05	<0.05	1.1	0	8.2	<1	<1	11.6	6.27	91.03
Bore 1	19/01/23	KAPITI-4077	4.4	0.2	<0.015	0.508	<0.015	<0.05	<0.05	1.3	0	6.6	<1	<1	12.8	6.1	88.5
Bore 1	23/02/23	KAPITI-4216	4.3	0.5	0.017	0.476	<0.015	<0.05	<0.05	0.7	0	7.6	1	1	13	6.1	96.6
Bore 1	10/03/23	KAPITI-4287	4.2	0.4	<0.015	0.453	<0.015	<0.05	<0.05	1	0	6.5	<2	<2	14.2	6.2	88.2
Bore 1	6/04/23	KAPITI-4391	4.24	<0.1	<0.015	0.304	<0.015	<0.05	<0.05	1	0	6.6	<1	<1	14.9	6.29	87.98
Bore 1	24/05/23	KAPITI-4601	4	<0.5	<0.015	0.404	<0.015	<0.05	<0.05	1.3	0	7.1	4	2	15.5	6	95
Bore 1	22/06/23	KAPITI-4717	4.38	0.8	0.016	0.447	<0.015	<0.05	<0.05	1.1	0	7.1	<1	<1	15.5	5.91	90.75
Bore 2	28/07/22	KAPITI-3325	2.7	0.8	<0.015	7.17	0.039	0.542	0.569	6.3	0	19.9	8	7	13.4	6.1	253
Bore 2	9/08/22	KAPITI-3371	2.5	0.5	<0.015	6.73	0.029	0.514	0.57	7.3	0	18.9	5	5	13.4	6	248
Bore 2	12/09/22	KAPITI-3529	3.1	0.8	<0.015	5.46	<0.015	0.542	0.568	5.4	0	17.4	4	3	14.2	6.13	217.2
Bore 2	14/10/22	KAPITI-3660	3.15	0.5	0.022	5.12	<0.015	0.523	0.556	4.3	0	15.5	2	2	14.4	6.2	208
Bore 2	2/11/22	KAPITI-3741	3.28	0.6	<0.015	4.27	0.028	0.552	0.581	5.3	0	17.4	1	1	11.8	6.05	206.6
Bore 2	1/12/22	KAPITI-3857	2.97	0.1	0.017	4.08	<0.015	0.548	0.594	4.8	0	15.3	2	2	12.2	6.09	197.1
Bore 2	19/01/23	KAPITI-4078	3.4	0.2	0.022	3.34	<0.015	0.511	0.593	4.1	0	14.7	1	1	14.1	6	181.4
Bore 2	23/02/23	KAPITI-4217	3.2	0.4	0.016	3.27	0.036	0.55	0.565	3.9	0	17.1	86	62	14.5	6	212
Bore 2	10/03/23	KAPITI-4292	3.4	0.4	0.025	2.57	0.035	0.507	0.593	3	0	19.1	13	5	16	5.8	194
Bore 2	6/04/23	KAPITI-4392	3.19	0.1	0.022	2.88	0.039	0.596	0.626	3.5	0	17.9	1	1	15.8	5.97	205.4
Bore 2	24/05/23	KAPITI-4597	3	<0.5	0.019	3.06	0.06	0.62	0.67	3.7	0	16.8	3	2	16.1	5.8	209
Bore 2	22/06/23	KAPITI-4725	3.32	1.1	<0.015	2.26	0.044	0.642	0.692	3	0	17.9	3	3	16	5.83	190.2

Resource Consent Compliance Report
Appendix C Groundwater Effluent Quality

	Date	Sample ID	Bore Depth (m)	BOD (mg/L)	NH_4-N (mg/L)	NO_3-N (mg/L)	NO_2-N (mg/L)	DRP (mg/L)	TP (mg/L)	TN (mg/L)	fTN (mg/L)	Cl- (mg/L)	Faecal Colifrms (cfu / 100mL)	E. Coli (cfu / 100mL)	Sample Temp (°C)	pH	Cond (µS/cm)
Bore 3	28/07/22	KAPITI-3326	2.7	1	<0.015	3.46	<0.015	0.457	0.582	2.4	0	15.3	6	5	11.1	6.2	174
Bore 3	9/08/22	KAPITI-3372	2.7	0.5	<0.015	3.95	<0.015	0.455	0.506	4.6	0	15.3	180	130	11.4	6.2	274
Bore 3	12/09/22	KAPITI-3530	3.19	0.6	<0.015	3.69	<0.015	0.474	0.535	3.6	0	16.3	93	70	10.5	6.17	181.2
Bore 3	14/10/22	KAPITI-3661	3.45	0.4	<0.015	1.98	<0.015	0.535	0.553	0.6	0	11.5	7	6	15	6.2	143
Bore 3	2/11/22	KAPITI-3742	4.08	0.7	<0.015	1.97	<0.015	0.512	0.563	2.8	0	12.8	62	27	10.6	6.15	148.7
Bore 3	1/12/22	KAPITI-3858	3.1	0.2	<0.015	2.17	<0.015	0.452	0.496	3.3	0	13.8	7	7	11.4	6.18	164.4
Bore 3	19/01/23	KAPITI-4079	3.4	0.3	0.017	1.54	<0.015	0.48	0.531	1.9	0	13.7	15	11	15.9	6.2	165.5
Bore 3	23/02/23	KAPITI-4218	3.3	0.3	0.02	0.475	<0.015	0.645	0.66	0.8	0	10.6	35	25	16.4	6.2	125
Bore 3	10/03/23	KAPITI-4293	3.2	0.3	0.018	0.657	<0.015	0.55	0.64	0.7	0	9.6	47	36	17.4	6.1	112
Bore 3	6/04/23	KAPITI-4393	3.18	<0.1	<0.015	0.412	<0.015	0.514	0.564	0.7	0	8.7	11	8	17.6	6.21	103.9
Bore 3	24/05/23	KAPITI-4598	3.2	<0.5	0.016	0.63	<0.015	0.475	0.505	0.7	0	10.7	2	1	15.8	6	118
Bore 3	22/06/23	KAPITI-4726	3.51	0.8	<0.015	0.519	<0.015	0.476	0.479	0.7	0	8.7	<1	<1	14.9	6.2	102.7
Bore 4	28/07/22	KAPITI-3327	2.5	0.7	<0.015	2.48	<0.015	0.179	0.232	2.1	2	11.2	<1	<1	12.8	6.3	134
Bore 4	9/08/22	KAPITI-3370	2.3	0.5	<0.015	3.33	<0.015	0.164	0.196	3.9	4.1	12.3	<1	<1	13.4	6.2	149
Bore 4	12/09/22	KAPITI-3527	2.82	<0.1	<0.015	2.4	<0.015	0.161	0.161	2.4	2.4	13.3	<1	<1	15.8	6.13	143.3
Bore 4	14/10/22	KAPITI-3662	3.03	0.5	0.036	3.47	<0.015	0.189	0.174	2.6	1.9	12.5	<1	<1	13.8	6.1	148
Bore 4	2/11/22	KAPITI-3743	2.96	0.9	<0.015	2.64	<0.015	0.173	0.289	5.1	3.6	12.8	<1	<1	12.4	6.13	144
Bore 4	1/12/22	KAPITI-3859	2.8	0.3	<0.015	1.92	<0.015	0.19	0.212	3.4	3.1	10.7	1	1	12.8	6.2	129.6
Bore 4	19/01/23	KAPITI-4080	3.2	0.4	0.015	1.84	<0.015	0.183	0.193	2.1	2	10.1	<1	<1	14.2	6.2	118.5
Bore 4	23/02/23	KAPITI-4219	2.84	0.3	<0.015	2.67	<0.015	0.19	0.206	3.6	3.5	14.1	<1	<1	14.5	6.1	161
Bore 4	10/03/23	KAPITI-4291	3.2	0.3	<0.015	2.11	<0.015	0.183	0.217	3	2.9	12.9	28	21	15	6.1	136
Bore 4	6/04/23	KAPITI-4395	3.07	<0.1	0.017	1.94	<0.015	0.207	0.226	2.4	2.3	11.2	<1	<1	15	6.07	141.1
Bore 4	24/05/23	KAPITI-4595	2.7	<0.5	0.023	1.97	<0.015	0.197	0.217	2.5	2.4	10.2	<1	<1	15.1	5.8	132
Bore 4	22/06/23	KAPITI-4722	3.1	0.9	0.018	1.95	<0.015	0.215	0.223	2.6	2.6	10.7	<1	<1	15.4	6.1	136.4

Resource Consent Compliance Report
Appendix C Groundwater Effluent Quality

	Date	Sample ID	Bore Depth (m)	BOD (mg/L)	NH_4-N (mg/L)	NO_3-N (mg/L)	NO_2-N (mg/L)	DRP (mg/L)	TP (mg/L)	TN (mg/L)	fTN (mg/L)	Cl- (mg/L)	Faecal Colifrms (cfu / 100mL)	E. Coli (cfu / 100mL)	Sample Temp (°C)	pH	Cond (µS/cm)
Bore 4a	28/07/22	KAPITI-3328	3	1.1	<0.015	1.91	<0.015	0.141	0.14	1.5	0	10.7	3	1	12.9	6.3	122
Bore 4a	9/08/22	KAPITI-3369	2.8	0.4	<0.015	1.32	<0.015	<0.05	0.066	2	0	9.7	<1	<1	13.3	6.3	116
Bore 4a	12/09/22	KAPITI-3528	4.04	0.2	<0.015	1.05	<0.015	<0.05	<0.05	1.2	0	10.7	<1	<1	15.7	6.31	110.6
Bore 4a	14/10/22	KAPITI-3663	3.5	0.5	<0.015	1.29	<0.015	<0.05	<0.05	<0.5	0	10.5	<1	<1	12.9	6.2	120
Bore 4a	2/11/22	KAPITI-3744	3.56	0.8	<0.015	1.09	<0.015	<0.05	<0.05	2.9	0	10.2	<1	<1	12.9	6.27	109
Bore 4a	1/12/22	KAPITI-3860	3.17	0.3	<0.015	0.834	<0.015	0.052	<0.05	1.5	0	9.2	1	1	13.2	6.28	102.6
Bore 4a	19/01/23	KAPITI-4081	3.6	0.3	0.017	0.851	<0.015	<0.05	0.055	1.5	0	8.6	<1	<1	14.1	6.3	96.8
Bore 4a	23/02/23	KAPITI-4220	3.4	0.3	0.019	0.859	<0.015	0.34	0.052	1.5	0	8.6	1	1	14	6.3	101
Bore 4a	10/03/23	KAPITI-4290	3	0.3	<0.015	0.821	<0.015	<0.05	<0.05	5.2	0	8.6	2	2	14.1	6.1	100
Bore 4a	6/04/23	KAPITI-4396	3.19	<0.1	0.015	<0.23	<0.015	<0.05	<0.05	0.7	0	7.1	<1	<1	13.6	6.27	102
Bore 4a	24/05/23	KAPITI-4596	3.1	<0.5	<0.015	0.884	<0.015	<0.05	<0.05	1.2	0	8.2	<1	<1	14.9	5.7	111
Bore 4a	22/06/23	KAPITI-4720	3.43	0.4	<0.015	0.784	<0.015	<0.05	<0.05	0.9	0	8.2	<1	<1	14.1	6.04	103.5
Bore 5	28/07/22	KAPITI-3329	2.2	1.1	0.022	5.63	0.037	0.232	0.264	5.4	4.9	20.4	2	1	12.8	6	248
Bore 5	9/08/22	KAPITI-3368	2.3	0.7	<0.015	2.93	<0.015	0.178	0.409	3.8	3.6	15.3	2	2	12.8	6.1	199
Bore 5	12/09/22	KAPITI-3526	4.6	0.8	<0.015	5.86	0.021	0.205	0.229	6.2	5.4	18.4	<1	<1	15.7	6.02	251.1
Bore 5	14/10/22	KAPITI-3664	2.62	0.6	0.018	5.49	0.022	0.172	0.188	4.5	4.7	19	<1	<1	12.6	6	257
Bore 5	2/11/22	KAPITI-3745	2.68	0.9	<0.015	4.65	0.017	0.183	0.231	6.8	5.3	18.9	1	<1	12.7	6.09	239
Bore 5	1/12/22	KAPITI-3861	2.47	0.4	<0.015	3.09	0.018	0.199	0.218	4.6	3.9	17.9	<1	<1	13.4	6.09	234.5
Bore 5	19/01/23	KAPITI-4082	2.8	0.5	0.024	3.6	0.024	0.191	0.217	4.1	3.7	17.7	1	1	15.5	6	226.1
Bore 5	23/02/23	KAPITI-4221	2.5	0.4	0.018	2.44	0.023	0.193	0.215	3.3	3	17.1	2	2	15.4	6.1	208
Bore 5	10/03/23	KAPITI-4289	2.6	0.4	0.028	2.24	0.018	0.179	0.246	2.9	2.6	19.1	1	<1	15.8	6	213.1
Bore 5	6/04/23	KAPITI-4397	2.46	0.1	0.017	1.66	0.022	0.183	0.208	2.6	2.1	17.4	<1	<1	15.7	6.06	212.7
Bore 5	24/05/23	KAPITI-4594	2.5	<0.5	0.021	3.55	0.023	0.159	0.196	4.1	4	20.9	8	7	15.4	5.6	255
Bore 5	22/06/23	KAPITI-4719	2.67	1	<0.015	3.35	0.031	0.17	0.172	4.7	4.6	20.9	1	1	15.4	5.97	250.3

Resource Consent Compliance Report
Appendix C Groundwater Effluent Quality

	Date	Sample ID	Bore Depth (m)	BOD (mg/L)	NH_4-N (mg/L)	NO_3-N (mg/L)	NO_2-N (mg/L)	DRP (mg/L)	TP (mg/L)	TN (mg/L)	fTN (mg/L)	Cl- (mg/L)	Faecal Colifrms (cfu / 100mL)	E. Coli (cfu / 100mL)	Sample Temp (°C)	pH	Cond (µS/cm)
Bore 6	28/07/22	KAPITI-3330	2.8	0.7	0.022	0.467	<0.015	<0.05	<0.05	0.1	0	10.2	2	2	10.6	6.6	89
Bore 6	9/08/22	KAPITI-3374	2.6	1.1	0.07	0.269	<0.015	<0.05	<0.05	1.1	0	9.2	2	1	10.4	6.6	75
Bore 6	12/09/22	KAPITI-3532	3.24	<0.5	<0.015	0.234	<0.015	<0.05	<0.05	0.5	0	8.2	1	1	10.2	6.84	73.84
Bore 6	14/10/22	KAPITI-3665	3.15	0.5	<0.015	<0.23	<0.015	<0.05	<0.05	<0.5	0	6	<1	<1	15.3	6.8	65
Bore 6	2/11/22	KAPITI-3746	2.78	0.8	<0.015	<0.23	<0.015	<0.05	<0.05	3	0	7.1	3	3	9.6	6.53	65.53
Bore 6	1/12/22	KAPITI-3862	2.6	0.3	0.03	<0.23	<0.015	<0.05	<0.05	1.4	0	6.6	1	1	11.7	6.52	67.2
Bore 6	19/01/23	KAPITI-4083	3.1	0.4	0.015	<0.23	<0.015	<0.05	<0.05	0.4	0	6.1	<1	<1	15.2	6.5	65.9
Bore 6	23/02/23	KAPITI-4222	3.2	<0.1	0.018	<0.23	<0.015	<0.05	<0.05	1	0	5.5	1	1	17.6	6.6	64
Bore 6	10/03/23	KAPITI-4295	2.7	0.3	<0.015	<0.23	<0.015	<0.05	<0.05	0.6	0	6.5	<1	<1	17.4	6.4	60.3
Bore 6	6/04/23	KAPITI-4405	2.8	<0.1	0.016	1.64	<0.015	<0.05	<0.05	2.5	0	5.6	1	1	16.3	6.66	60.35
Bore 6	24/05/23	KAPITI-4600	2.9	<0.5	<0.015	<0.23	<0.015	<0.05	<0.05	0.6	0	6.6	<1	<1	13.6	6	66
Bore 6	22/06/23	KAPITI-4727	2.89	1.3	<0.015	<0.23	<0.015	<0.05	<0.05	0.1	0	6.1	<1	<1	12.1	6.57	64.67
Bore 7	28/07/22	KAPITI-3331	3	0.6	<0.015	0.446	<0.015	0.076	0.064	0.7	0	8.67	3	2	8.8	6.5	75
Bore 7	9/08/22	KAPITI-3373	2.7	0.9	<0.015	0.245	<0.015	<0.05	<0.05	1.1	0	7.1	7	6	9.3	6.6	69
Bore 7	12/09/22	KAPITI-3531	3.28	1	<0.015	<0.23	<0.015	<0.05	<0.05	0.7	0	6.6	<1	<1	9.5	6.65	66.43
Bore 7	14/10/22	KAPITI-3666	3.39	0.3	<0.015	<0.23	<0.015	<0.05	<0.05	<0.5	0	6	<1	<1	14.5	6.5	79
Bore 7	2/11/22	KAPITI-3747	3.42	0.9	<0.015	<0.23	<0.015	<0.05	<0.05	0.8	0	7.7	1	1	10.4	6.6	70.53
Bore 7	1/12/22	KAPITI-3863	2.94	0.3	<0.015	<0.23	<0.015	<0.05	<0.05	1.5	0	7.1	1	1	12.5	6.58	66.5
Bore 7	19/01/23	KAPITI-4084	4.2	0.4	0.015	<0.23	<0.015	<0.05	<0.05	0.3	0	6.1	<1	<1	16.5	6.3	69.7
Bore 7	23/02/23	KAPITI-4223	3	0.3	0.018	<0.23	<0.015	0.102	<0.05	0.8	0	5.5	4	4	18.1	6.6	69
Bore 7	10/03/23	KAPITI-4294	3.3	0.4	<0.015	<0.23	<0.015	<0.05	<0.05	0.8	0	5	<1	<1	18.2	6.4	64.7
Bore 7	6/04/23	KAPITI-4406	2.08	<0.1	0.018	<0.23	<0.015	<0.05	<0.05	1.4	0	6.1	<1	<1	16.4	6.7	64.07
Bore 7	24/05/23	KAPITI-4599	3.2	<0.5	0.024	<0.23	<0.015	<0.05	<0.05	0.6	0	6.1	<1	<1	13.4	6.3	69
Bore 7	22/06/23	KAPITI-4728	3.48	1	<0.015	<0.23	<0.015	<0.05	<0.05	0.1	0	6.6	<1	<1	12.6	6.61	66.51

Resource Consent Compliance Report
Appendix C Groundwater Effluent Quality

	Date	Sample ID	Bore Depth (m)	BOD (mg/L)	NH_4-N (mg/L)	NO_3-N (mg/L)	NO_2-N (mg/L)	DRP (mg/L)	TP (mg/L)	TN (mg/L)	fTN (mg/L)	Cl- (mg/L)	Faecal Colifrms (cfu / 100mL)	E. Coli (cfu / 100mL)	Sample Temp (°C)	pH	Cond (µS/cm)
Spring	28/07/22	KAPITI-3332		0.8	<0.015	1.03	<0.015	<0.05	<0.05	2	0	9.18	<1	<1	12.3	6.1	104
Spring	9/08/22	KAPITI-3367		0.6	<0.015	0.877	<0.015	<0.05	<0.05	1.8	0	8.2	<1	<1	12.4	6.2	101
Spring	12/09/22	KAPITI-3525		<0.5	<0.015	0.777	<0.015	<0.05	<0.05	0.9	0	8.7	1	1	15.5	6.1	101.9
Spring	14/10/22	KAPITI-3667		0.8	<0.015	0.842	<0.015	<0.05	<0.05	1.1	0	8	<1	<1	12.8	6.1	103
Spring	2/11/22	KAPITI-3748		0.9	<0.015	0.747	<0.015	<0.05	<0.05	1.7	0	9.2	5	5	14.5	6.8	79.71
Spring	1/12/22	KAPITI-3864		0.3	<0.015	0.861	<0.015	<0.05	<0.05	1.5	0	8.2	7	7	14.3	6.04	101.7
Spring	19/01/23	KAPITI-4085		1.2	0.028	0.642	<0.015	<0.05	<0.05	1.2	0	7.6	720	590	17.3	6.4	91.4
Spring	23/02/23	KAPITI-4224		0.5	<0.015	0.6	<0.015	<0.05	<0.05	1.7	0	7	1	<1	16.4	6.1	91.52
Spring	10/03/23	KAPITI-4288		0.3	0.02	0.589	<0.015	<0.05	<0.05	0.8	0	7	6	6	16.8	6.1	87.3
Spring	6/04/23	KAPITI-4407		<0.1	0.015	<0.23	<0.015	<0.05	<0.05	0.8	0	7.1	<1	<1	16.4	6.82	96.57
Spring	24/05/23	KAPITI-4593		0.7	0.019	0.76	<0.015	<0.05	<0.05	1.4	0	6.6	<1	<1	14.5	6	99.24
Spring	22/06/23	KAPITI-4729		1.4	0.023	0.737	<0.015	<0.05	<0.05	0.9	0	7.1	10	10	14	5.96	99.04

Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	5/7/22 09:40	2.1	10.5	Yellow	1 - No Smell	Dredging
Pond A	5/7/22 09:45	3.6	10.5	Yellow	1 - No Smell	Dredging
Pond A	6/7/22 10:45	3.1	11.3	Green	1 - No Smell	light green, little pieces of plastic floating around outlet
Pond A	7/7/22 10:30	3.19	10	Clear	1 - No Smell	Pond getting Dredged
Pond A	8/7/22 10:13	2.98	10.4	Clear	1 - No Smell	
Pond A	11/7/22 10:47	4.38	11.3	Brown	1 - No Smell	
Pond A	12/7/22 09:57	3.66	11.6	Brown	1 - No Smell	
Pond A	13/7/22 09:45	4	11.5	Brown	1 - No Smell	
Pond A	14/7/22 10:30	6.1	12.1	Brown	1 - No Smell	dredging
Pond A	15/7/22 11:00	5.8	11.6	Brown	1 - No Smell	dredging
Pond A	18/7/22 10:30	5.6	10.8	Yellow	1 - No Smell	Dredging
Pond A	19/7/22 10:30	5.9	10.8	Brown	1 - No Smell	Dredging
Pond A	20/7/22 09:34	4.2	12	Yellow	1 - No Smell	
Pond A	21/7/22 09:10	5	11.5	Yellow	1 - No Smell	
Pond A	22/7/22 09:07	3.8	10.3	Brown	1 - No Smell	
Pond A	25/7/22 08:54	2.25	8.8	Brown	1 - No Smell	
Pond A	26/7/22 09:30	2	9.1	Brown	1 - No Smell	
Pond A	27/7/22 10:00	3.2	10.1	Brown	1 - No Smell	
Pond A	28/7/22 09:04	4.2	12	Brown	1 - No Smell	
Pond A	29/7/22 09:16	3.9	12	Brown	1 - No Smell	
Pond A	2/8/22 09:42	9.2	10.9	Green	1 - No Smell	
Pond A	3/8/22 11:45	8.36	12	Clear	1 - No Smell	pond being dredged. pond is very full
Pond A	4/8/22 11:11	8.7	12.4	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	5/8/22 09:54	8.2	12.2	Green	1 - No Smell	
Pond A	8/8/22 09:59	7.6	12.3	Green	1 - No Smell	
Pond A	9/8/22 09:16	6.6	11.8	Green	1 - No Smell	
Pond A	10/8/22 10:55	6.5	11.5	Green	1 - No Smell	Pond is full
Pond A	11/8/22 09:17	4.31	10.5	Green	1 - No Smell	
Pond A	12/8/22 10:08	6.6	10.2	Green	1 - No Smell	
Pond A	15/8/22 10:29	9.19	11.4	Green	1 - No Smell	
Pond A	16/8/22 10:00	10.4	13.9	Green	1 - No Smell	
Pond A	17/8/22 11:00	8.4	12.6	Brown	1 - No Smell	sludge dredging in process
Pond A	18/8/22 09:31	6.9	13.3	Green	1 - No Smell	
Pond A	19/8/22 10:31	7.2	13.6	Green	1 - No Smell	
Pond A	22/8/22 22:30	5.6	14.8	Green	1 - No Smell	
Pond A	23/8/22 09:57	6.8	14.4	Green	1 - No Smell	
Pond A	24/8/22 09:30	8.2	14.4	Green	1 - No Smell	
Pond A	25/8/22 10:00	7.8	14.4	Green	1 - No Smell	
Pond A	26/8/22 10:00	7.78	14.2	Clear	1 - No Smell	
Pond A	29/8/22 09:21	10.14	12.3	Green	1 - No Smell	
Pond A	30/8/22 08:39	10.2	11.9	Green	1 - No Smell	
Pond A	31/8/22 08:49	11.6	12.4	Green	1 - No Smell	
Pond A	1/9/22 09:13	10	12.8	Green	1 - No Smell	
Pond A	2/9/22 09:14	9.1	13.3	Green	1 - No Smell	
Pond A	3/9/22 11:39	9	13.5	Green	1 - No Smell	
Pond A	5/9/22 12:51	7.3	12.4	Green	1 - No Smell	
Pond A	6/9/22 09:08	9	10.5	Green	1 - No Smell	
Pond A	7/9/22 10:28	12.49	11.4	Green	1 - No Smell	Pond very full
Pond A	8/9/22 09:09	9	11.4	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	9/9/22 08:50	10.2	11.3	Green	1 - No Smell	
Pond A	12/9/22 09:30	14.4	14.8	Green	1 - No Smell	
Pond A	13/9/22 08:58	7.8	13.8	Green	1 - No Smell	
Pond A	14/9/22 10:52	10	13.1	Green	1 - No Smell	
Pond A	15/9/22 09:52	8.4	12.6	Green	1 - No Smell	
Pond A	16/9/22 11:00	9.2	12.7	Green	1 - No Smell	dredging in process
Pond A	19/9/22 10:30	8.9	14.6	Green	1 - No Smell	
Pond A	20/9/22 11:00	10.4	15.4	Green	1 - No Smell	
Pond A	21/9/22 12:44	8.3	15.4	Green	1 - No Smell	
Pond A	22/9/22 11:31	6	15.7	Green	1 - No Smell	Desludging
Pond A	23/9/22 09:00	5.1	15.1	Green	1 - No Smell	Desludging
Pond A	26/9/22 09:50	4.4	14.7	Green	1 - No Smell	
Pond A	27/9/22 09:36	3.29	15.4	Green	1 - No Smell	Daphina present
Pond A	28/9/22 09:30	1.7	15.4	Green	1 - No Smell	
Pond A	29/9/22 09:37	1.1	16.4	Green	1 - No Smell	
Pond A	3/10/22 10:30	4.2	16	Green	1 - No Smell	very full
Pond A	4/10/22 10:40	5.7	14.2	Green	1 - No Smell	
Pond A	5/10/22 12:23	6.2	14.3	Green	1 - No Smell	
Pond A	5/10/22 13:30	6.1	14.1	Green	1 - No Smell	
Pond A	7/10/22 12:06	4	13.2	Green	1 - No Smell	
Pond A	10/10/22 10:15	1.7	16.1	Clear	1 - No Smell	very full
Pond A	11/10/22 10:30	1.2	15.8	Clear	1 - No Smell	very full
Pond A	12/10/22 09:20	1.5	15.5	Clear	1 - No Smell	very full
Pond A	13/10/22 10:11	1.7	15.5	Green	1 - No Smell	
Pond A	14/10/22 08:30	2.5	14.6	Green	1 - No Smell	
Pond A	17/10/22 10:11	2.2	14.6	Clear	1 - No Smell	very full

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	18/10/22 09:35	3.2	15.4	Clear	1 - No Smell	very full
Pond A	19/10/22 09:44	1.2	18.5	Clear	1 - No Smell	very full
Pond A	20/10/22 08:50	1.6	18.3	Clear	1 - No Smell	very full
Pond A	21/10/22 12:18	4.5	17.4	Green	1 - No Smell	
Pond A	21/10/22 12:32	6.7	18.2	Green	1 - No Smell	
Pond A	24/10/22 09:00	5.6	17.5	Green	1 - No Smell	
Pond A	27/10/22 08:56	5.6	17.9	Green	1 - No Smell	
Pond A	28/10/22 09:16	6.8	18.1	Green	1 - No Smell	
Pond A	31/10/22 11:27	7.8	20.5	Green	1 - No Smell	
Pond A	1/11/22 23:12	4.4	22.1	Green	1 - No Smell	
Pond A	2/11/22 10:15	2.6	20.3	Brown	1 - No Smell	
Pond A	3/11/22 11:00	4.6	20.1	Brown and frothy	1 - No Smell	"Dredging
Pond A	7/11/22 10:00	1.8	20	Brown	1 - No Smell	
Pond A	8/11/22 06:42	2.4	21.4	Brown	1 - No Smell	dredging
Pond A	9/11/22 10:00	0.8	20.2	Clear	1 - No Smell	
Pond A	10/11/22 10:00	1.8	20.5	Clear	1 - No Smell	
Pond A	11/11/22 10:00	2	21.3	Clear	1 - No Smell	
Pond A	14/11/22 09:45	2.5	19	Clear	1 - No Smell	
Pond A	15/11/22 09:30	1.6	22.3	Brown	1 - No Smell	"Dredging
Pond A	17/11/22 11:09	4	22.2	Brown	1 - No Smell	"dredging
Pond A	21/11/22 11:03	5.1	22.1	Brown	1 - No Smell	
Pond A	22/11/22 11:08	9.6	22.9	Green	1 - No Smell	
Pond A	23/11/22 10:30	12.5	22.9	Green	1 - No Smell	
Pond A	24/11/22 09:50	18.5	21.7	Green	1 - No Smell	
Pond A	25/11/22 09:00	15.4	20.5	Green	1 - No Smell	
Pond A	28/11/22 09:40	18.8	21	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	29/11/22 09:55	10.1	18.5	Green	1 - No Smell	
Pond A	30/11/22 10:05	9.9	18	Green	1 - No Smell	
Pond A	1/12/22 13:40	9	18.6	Green	1 - No Smell	
Pond A	2/12/22 11:49	8.6	18.4	Green	1 - No Smell	
Pond A	5/12/22 12:06	8.9	19.6	Green	1 - No Smell	
Pond A	6/12/22 12:00	9.6	20.4	Green	1 - No Smell	
Pond A	7/12/22 10:38	17.3	22.8	Green	1 - No Smell	
Pond A	8/12/22 10:24	16.7	21.2	Green	1 - No Smell	
Pond A	9/12/22 10:20	15.8	21.1	Green	1 - No Smell	
Pond A	12/12/22 09:31	16.8	20.2	Green	1 - No Smell	
Pond A	13/12/22 09:19	17.8	20.8	Green	1 - No Smell	
Pond A	14/12/22 10:00	16.2	21	Green	1 - No Smell	
Pond A	15/12/22 10:00	12.07	22.9	Green	1 - No Smell	
Pond A	16/12/22 09:45	16.74	24.1	Green	1 - No Smell	
Pond A	19/12/22 09:30	15.1	25.3	Green	1 - No Smell	
Pond A	20/12/22 08:56	15.1	24.5	Green	1 - No Smell	
Pond A	21/12/22 11:24	15.5	23.8	Green	2 - Slight Smell	
Pond A	22/12/22 08:15	16.1	23.4	Green	1 - No Smell	
Pond A	23/12/22 09:48	17.6	24.2	Green	1 - No Smell	
Pond A	26/12/22 07:30	16	23	Green	1 - No Smell	floating plastic from dredging process
Pond A	27/12/22 07:30	9.85	21	Green	1 - No Smell	floating plastic
Pond A	28/12/22 09:00	12.7	23	Green	1 - No Smell	DO 21.9
Pond A	29/12/22 08:23	14.2	22.3	Green	1 - No Smell	A lot of algae and bird feathers on surface
Pond A	30/12/22 10:54	12.7	21.8	Green	1 - No Smell	
Pond A	2/1/23 09:00	18.2	22	Green	1 - No Smell	
Pond A	3/1/23 22:00	9	23.8	Green	1 - No Smell	floating plastic

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	4/1/23 09:02	9.1	24.6	Green	1 - No Smell	
Pond A	5/1/23 10:00	8.6	21.5	Green	1 - No Smell	
Pond A	6/1/23 10:00	12.7	22.4	Green	1 - No Smell	
Pond A	9/1/23 10:30	14.4	23.4	Green	1 - No Smell	
Pond A	10/1/23 09:58	7.65	22.1	Green	1 - No Smell	
Pond A	12/1/23 09:30	7.7	22.1	Green	1 - No Smell	
Pond A	12/1/23 09:45	10.2	22.8	Green	1 - No Smell	
Pond A	13/1/23 09:00	18.1	22	Green	1 - No Smell	
Pond A	16/1/23 10:09	11.7	21.6	Green	1 - No Smell	
Pond A	17/1/23 10:00	9.7	20.6	Green	1 - No Smell	
Pond A	18/1/23 09:24	11.1	21	Green	1 - No Smell	
Pond A	19/1/23 11:00	12.3	22.9	Green	1 - No Smell	
Pond A	20/1/23 12:00	11.6	23.3	Green	1 - No Smell	
Pond A	23/1/23 11:21	15.3	24.8	Green	1 - No Smell	
Pond A	24/1/23 09:34	17.1	24.4	Green	1 - No Smell	
Pond A	25/1/23 09:25	11.7	25	Green	1 - No Smell	
Pond A	26/1/23 09:30	18.7	24	Green	1 - No Smell	
Pond A	27/1/23 09:50	20	24.8	Green	1 - No Smell	DO 21.9
Pond A	30/1/23 10:00	19.6	24.5	Green	1 - No Smell	
Pond A	31/1/23 14:50	19.2	24.6	Green	1 - No Smell	
Pond A	1/2/23 08:55	16.8	24.4	Green	1 - No Smell	
Pond A	2/2/23 09:12	19.4	24.1	Green	1 - No Smell	
Pond A	3/2/23 09:30	18.5	24.1	Yellow	1 - No Smell	
Pond A	6/2/23 08:30	3.1	23.2	Green	1 - No Smell	
Pond A	7/2/23 09:18	2.4	22.6	Green	1 - No Smell	
Pond A	8/2/23 08:28	3.9	23	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	9/2/23 09:00	3.7	23	Green	1 - No Smell	
Pond A	10/2/23 11:00	10.27	24.2	Green	1 - No Smell	
Pond A	13/2/23 09:00	8.4	22.8	Green	1 - No Smell	
Pond A	14/2/23 09:15	6.68	22.9	Green	1 - No Smell	
Pond A	15/2/23 10:05	9.3	23.2	Green	1 - No Smell	
Pond A	16/2/23 10:55	3.3	22.8	Green	1 - No Smell	
Pond A	17/2/23 09:05	3.1	22.8	Green	1 - No Smell	
Pond A	20/2/23 11:00	6	18.6	Green	1 - No Smell	
Pond A	21/2/23 14:30	7.8	19.4	Green	1 - No Smell	
Pond A	22/2/23 20:45	4.2	17.4	Green	1 - No Smell	
Pond A	23/2/23 09:15	5.6	21.7	Green	1 - No Smell	
Pond A	24/2/23 09:00	5.3	22.5	Brown	1 - No Smell	
Pond A	27/2/23 14:30	2.2	21.5	Brown	1 - No Smell	
Pond A	28/2/23 08:45	4.7	20.7	Green	1 - No Smell	
Pond A	1/3/23 09:49	5.9	18.8	Green	1 - No Smell	
Pond A	2/3/23 10:26	18.8	21.9	Green	1 - No Smell	
Pond A	3/3/23 11:47	9.4	18.6	Green	1 - No Smell	
Pond A	6/3/23 10:04	12.5	20.8	Green	1 - No Smell	
Pond A	7/3/23 10:35	11.8	21.6	Green	1 - No Smell	
Pond A	8/3/23 22:00	9	21.7	Green	1 - No Smell	
Pond A	9/3/23 09:30	11.9	20.1	Green	1 - No Smell	
Pond A	10/3/23 09:15	14.3	19.6	Green	1 - No Smell	
Pond A	13/3/23 09:30	10.8	20.5	Green	1 - No Smell	
Pond A	14/3/23 09:30	6.3	20.3	Green	1 - No Smell	
Pond A	15/3/23 11:47	7.3	20.7	Green	1 - No Smell	
Pond A	16/3/23 11:27	5.4	20.6		1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	17/3/23 12:02	9.2	18.7	Green	1 - No Smell	
Pond A	20/3/23 12:00	7.1	18.5	Green	1 - No Smell	
Pond A	21/3/23 12:15	9.8	19.2	Green	1 - No Smell	
Pond A	22/3/23 22:00	5.3	19.7	Green	1 - No Smell	
Pond A	23/3/23 09:30	9.3	19.8	Green	1 - No Smell	
Pond A	27/3/23 09:30	11.3	19.2	Green	1 - No Smell	
Pond A	28/3/23 21:10	8.3	19.5	Green	1 - No Smell	
Pond A	29/3/23 11:32	5.2	22.3	Green	1 - No Smell	
Pond A	30/3/23 10:07	5.6	19	Green	1 - No Smell	
Pond A	3/4/23 09:37	3.4	22.9	Green	1 - No Smell	
Pond A	4/4/23 09:42	8.3	15.9	Green	1 - No Smell	
Pond A	5/4/23 09:30	7.2	15	Green	1 - No Smell	
Pond A	6/4/23 08:30	6.7	18.9	Green	1 - No Smell	
Pond A	7/4/23 09:37	3.2	17.5	Green	1 - No Smell	A lot of algae and bird feathers on surface
Pond A	10/4/23 09:39	4.1	18.1	Green	1 - No Smell	
Pond A	11/4/23 11:30	4.4	17.4	Green	1 - No Smell	
Pond A	12/4/23 11:00	4.7	16.3	Green	1 - No Smell	
Pond A	13/4/23 11:02	9.7	17	Green	1 - No Smell	
Pond A	14/4/23 10:30	9.9	18.1	Green	1 - No Smell	
Pond A	17/4/23 09:30	8.9	18.1	Green	1 - No Smell	
Pond A	18/4/23 10:08	19.7	20.3	Green	1 - No Smell	
Pond A	19/4/23 10:00	17.1	18.8	Green	1 - No Smell	
Pond A	20/4/23 09:00	16.7	16.6	Green	1 - No Smell	
Pond A	25/4/23 08:39	10.9	16.4	Green	1 - No Smell	
Pond A	26/4/23 10:25	7.2	16.6	Green	1 - No Smell	
Pond A	27/4/23 10:52	4.3	16.8	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	28/4/23 11:24	1.2	14.7	Green	1 - No Smell	
Pond A	1/5/23 11:31	8.8	15.5	Green	1 - No Smell	
Pond A	2/5/23 11:26	5.4	15.1	Green	1 - No Smell	
Pond A	3/5/23 11:00	3	14.3	Green	1 - No Smell	
Pond A	5/5/23 12:24	12.8	16.7	Green	1 - No Smell	
Pond A	8/5/23 10:00	4	17	Green	1 - No Smell	
Pond A	9/5/23 08:35	9.6	18	Clear	1 - No Smell	
Pond A	10/5/23 11:31	13.3	18.3	Green	1 - No Smell	
Pond A	11/5/23 10:35	10.6	18	Green	1 - No Smell	
Pond A	12/5/23 12:02	3.1	17.1	Green	1 - No Smell	
Pond A	15/5/23 11:30	3	17	Green	1 - No Smell	
Pond A	16/5/23 12:15	5.8	13.1	Green	1 - No Smell	
Pond A	17/5/23 09:00	3.4	11.9	Green	1 - No Smell	
Pond A	18/5/23 10:00	18.1	15.2	Green	1 - No Smell	
Pond A	19/5/23 09:30	19.9	16.2	Green	1 - No Smell	
Pond A	22/5/23 09:45	4.8	12.9	Green	1 - No Smell	
Pond A	23/5/23 10:30	10.46	13.7	Green	1 - No Smell	
Pond A	24/5/23 09:19	9.3	13.5	Green	1 - No Smell	
Pond A	25/5/23 10:50	7.9	13.3	Green	1 - No Smell	
Pond A	26/5/23 11:22	8.6	12.9	Green	1 - No Smell	
Pond A	29/5/23 10:30	8.9	12.2	Green	1 - No Smell	
Pond A	30/5/23 09:46	14.1	12.8	Green	1 - No Smell	
Pond A	31/5/23 09:45	10	12.8	Green	1 - No Smell	
Pond A	1/6/23 09:00	10.2	14	Green	1 - No Smell	
Pond A	1/6/23 09:00	5.8	14.1	Green	1 - No Smell	
Pond A	5/6/23 08:44	6	13.4	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond A	6/6/23 10:00	6.7	14	Green	1 - No Smell	
Pond A	7/6/23 10:27	5.8	14.6	Green	1 - No Smell	
Pond A	8/6/23 13:02	5.6	11.8	Green	1 - No Smell	
Pond A	9/6/23 12:03	6.5	11.2	Green	1 - No Smell	
Pond A	12/6/23 12:02	6.7	10.6	Green	1 - No Smell	
Pond A	13/6/23 09:01	8.2	10.5	Green	1 - No Smell	
Pond A	14/6/23 09:30	7.9	10.7	Green	1 - No Smell	
Pond A	15/6/23 10:00	9.8	11.1	Green	1 - No Smell	
Pond A	16/6/23 09:30	5.6	9.3	Green	1 - No Smell	
Pond A	19/6/23 10:02	6.1	9.9	Green	1 - No Smell	
Pond A	20/6/23 10:38	8.1	10.3	Green	1 - No Smell	
Pond A	21/6/23 10:17	6.4	10	Green	1 - No Smell	
Pond A	23/6/23 10:00	8.2	11	Clear	1 - No Smell	
Pond A	26/6/23 10:00	5.87	10.4	Clear	1 - No Smell	
Pond A	27/6/23 08:45	6.1	10.7	Clear	1 - No Smell	
Pond A	28/6/23 09:30	5.8	10.4	Clear	1 - No Smell	
Pond A	29/6/23 09:20	2.9	10.8	Green	1 - No Smell	
Pond A	30/6/23 09:40	2.4	11.2	Clear	1 - No Smell	
Pond A	5/7/22 09:40	3.4	11.3	Clear	1 - No Smell	
Pond A	5/7/22 09:45	5.7	11.4	Clear	1 - No Smell	
Pond A	6/7/22 10:45	14.9	10.9	Clear	1 - No Smell	
Pond B	5/7/22 09:40	14.1	10.5	Green	1 - No Smell	
Pond B	5/7/22 09:45	13.8	10.7	Green	1 - No Smell	
Pond B	6/7/22 10:45	20	11.5	Green	1 - No Smell	floating bits of plastic around outlet.
Pond B	7/7/22 10:30	17.02	10.1	Green	1 - No Smell	
Pond B	8/7/22 10:13	13.76	10.3	Green	1 - No Smell	Basket blocked by shredded plastic

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	11/7/22 10:47	13.23	11.1	Green	1 - No Smell	
Pond B	12/7/22 09:57	10.14	11.5	Green	1 - No Smell	
Pond B	13/7/22 09:45	11.2	11.6	Green	1 - No Smell	
Pond B	14/7/22 10:30	9.8	11.6	Green	1 - No Smell	
Pond B	15/7/22 11:00	14.2	11.6	Green	1 - No Smell	
Pond B	18/7/22 10:30	12.6	10.8	Green	1 - No Smell	
Pond B	19/7/22 10:30	13.1	10.9	Green	1 - No Smell	
Pond B	20/7/22 09:34	10.4	12	Green	1 - No Smell	
Pond B	21/7/22 09:10	7.51	11.5	Green	1 - No Smell	
Pond B	22/7/22 09:07	10	10.5	Green	1 - No Smell	
Pond B	25/7/22 08:54	10.52	8.8	Green	1 - No Smell	
Pond B	26/7/22 09:30	9.9	8.8	Green	1 - No Smell	
Pond B	27/7/22 10:00	10.6	9.3	Green	1 - No Smell	
Pond B	28/7/22 09:04	7.2	11.9	Green	1 - No Smell	
Pond B	29/7/22 09:16	8.9	12	Green	1 - No Smell	
Pond B	2/8/22 09:42	8.4	10.8	Green	1 - No Smell	
Pond B	3/8/22 11:45	8.65	11.9	Green	1 - No Smell	pond is very full
Pond B	4/8/22 11:11	10	12.7	Green	1 - No Smell	
Pond B	5/8/22 09:54	9.4	11.9	Green	1 - No Smell	
Pond B	8/8/22 09:59	13.2	12.4	Green	1 - No Smell	
Pond B	9/8/22 09:16	6.7	11.7	Green	1 - No Smell	
Pond B	10/8/22 10:55	5.7	11.3	Green	1 - No Smell	Pond is quite full
Pond B	11/8/22 09:17	4.72	10.5	Green	1 - No Smell	
Pond B	12/8/22 10:08	4.92	10.3	Green	1 - No Smell	
Pond B	15/8/22 10:29	7.8	11	Green	1 - No Smell	
Pond B	16/8/22 10:00	16.4	11	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	17/8/22 11:00	12.1	12.4	Green	1 - No Smell	
Pond B	18/8/22 09:31	6.62	13	Green	1 - No Smell	
Pond B	19/8/22 10:31	5.9	13.3	Green	1 - No Smell	
Pond B	22/8/22 22:30	4.2	14.4	Green	1 - No Smell	
Pond B	23/8/22 09:57	5.8	14.6	Green	1 - No Smell	
Pond B	24/8/22 09:30	9.1	14.4	Green	1 - No Smell	
Pond B	25/8/22 10:00	8.9	15.3	Green	1 - No Smell	
Pond B	26/8/22 10:00	1.86	14.2	Clear	1 - No Smell	
Pond B	29/8/22 09:21	5.76	12.6	Green	1 - No Smell	
Pond B	30/8/22 08:39	8.2	12	Green	1 - No Smell	
Pond B	31/8/22 08:49	9.4	12.1	Green	1 - No Smell	
Pond B	1/9/22 09:13	7.4	12.9	Green	1 - No Smell	
Pond B	2/9/22 09:14	6.2	13.4	Green	1 - No Smell	
Pond B	3/9/22 11:39	7.2	13.5	Green	1 - No Smell	
Pond B	5/9/22 12:51	4.4	12.6	Green	1 - No Smell	
Pond B	6/9/22 09:08	8.2	10.3	Green	1 - No Smell	
Pond B	7/9/22 10:28	12.69	11.4	Green	1 - No Smell	Pond Very full
Pond B	8/9/22 09:09	10.5	11.8	Green	1 - No Smell	
Pond B	9/9/22 08:50	11.2	11.5	Green	1 - No Smell	
Pond B	12/9/22 09:30	6.6	14.7	Green	1 - No Smell	
Pond B	13/9/22 08:58	6.2	14	Green	1 - No Smell	
Pond B	14/9/22 10:52	10.2	13.7	Green	1 - No Smell	
Pond B	15/9/22 09:52	7.2	12.8	Green	1 - No Smell	
Pond B	16/9/22 11:00	8.9	14.1	Green	1 - No Smell	
Pond B	19/9/22 10:30	3.7	13.9	Green	1 - No Smell	
Pond B	20/9/22 11:00	8.2	17	Green	1 - No Smell	

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	21/9/22 12:44	11.1	15.8	Green	1 - No Smell	
Pond B	22/9/22 11:31	3.5	16.1	Green	1 - No Smell	
Pond B	23/9/22 09:00	10.4	15.1	Green	1 - No Smell	
Pond B	26/9/22 09:50	8.3	14.5	Green	1 - No Smell	
Pond B	27/9/22 09:36	7.11	15.2	Green	1 - No Smell	Daphina present
Pond B	28/9/22 09:30	3.21	15.2	Green	1 - No Smell	
Pond B	29/9/22 09:37	3.3	16.3	Green	1 - No Smell	
Pond B	3/10/22 10:30	4.8	15.9	Green	1 - No Smell	full
Pond B	4/10/22 10:40	5.4	13.8	Green	1 - No Smell	
Pond B	5/10/22 12:23	8.3	14.3	Green	1 - No Smell	
Pond B	5/10/22 13:30	7.9	14.1	Green	1 - No Smell	
Pond B	7/10/22 12:06	3.8	13.5	Green	1 - No Smell	
Pond B	10/10/22 10:15	0.3	15.4	Clear	1 - No Smell	full
Pond B	11/10/22 10:30	0.3	15.2	Clear	1 - No Smell	full
Pond B	12/10/22 09:20	0.5	15.5	Clear	1 - No Smell	full
Pond B	13/10/22 10:11	1	15.3	Clear	1 - No Smell	
Pond B	14/10/22 08:30	1.8	14.6	Green	1 - No Smell	
Pond B	17/10/22 10:11	1.5	14.5	Clear	1 - No Smell	full
Pond B	18/10/22 09:35	2	15.3	Clear	1 - No Smell	full
Pond B	19/10/22 09:44	0.7	17.7	Clear	1 - No Smell	full
Pond B	20/10/22 08:50	1	17.5	Clear	1 - No Smell	full
Pond B	21/10/22 12:18	5.3	16.9	Green	1 - No Smell	
Pond B	21/10/22 12:32	5.8	17.5	Green	1 - No Smell	
Pond B	24/10/22 09:00	6.1	17.4	Green	1 - No Smell	
Pond B	27/10/22 08:56	5.6	17.8	Green	1 - No Smell	
Pond B	28/10/22 09:16	8.1	17.9	Green	1 - No Smell	

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	31/10/22 11:27	9.4	21.8	Green	1 - No Smell	
Pond B	1/11/22 23:12	10.5	21.7	Green	1 - No Smell	
Pond B	2/11/22 10:15	8.6	20.2	Green	1 - No Smell	
Pond B	3/11/22 11:00	7.9	20.4	Green	1 - No Smell	
Pond B	4/11/22 09:00	8.1	20.1	Green	1 - No Smell	
Pond B	7/11/22 10:00	10.2	21.2	Green	1 - No Smell	n
Pond B	8/11/22 06:42	6.1	19.6	Green	1 - No Smell	
Pond B	9/11/22 10:00	11.4	20.8	Green	1 - No Smell	
Pond B	10/11/22 10:00	6.8	21	Green	1 - No Smell	
Pond B	11/11/22 10:00	6.7	19.2	Green	1 - No Smell	
Pond B	14/11/22 09:45	1.6	21.9	Green	1 - No Smell	
Pond B	15/11/22 09:30	2.5	21.7	Brown	1 - No Smell	
Pond B	16/11/22 08:45	3.8	21.7	Brown	1 - No Smell	
Pond B	17/11/22 11:09	9.4	22.6	Green	1 - No Smell	
Pond B	18/11/22 10:30	3.2	21.6	Green	1 - No Smell	
Pond B	21/11/22 11:03	10.7	21.4	Green	1 - No Smell	
Pond B	22/11/22 11:08	10.9	20	Green	1 - No Smell	
Pond B	23/11/22 10:30	12.5	20.7	Green	1 - No Smell	
Pond B	24/11/22 09:50	11.2	18.5	Green	1 - No Smell	
Pond B	25/11/22 09:00	11.4	18.3	Green	1 - No Smell	
Pond B	28/11/22 09:40	12.5	19	Green	1 - No Smell	
Pond B	29/11/22 09:55	11.4	18.6	Green	1 - No Smell	
Pond B	30/11/22 10:05	11.7	19.8	Green	1 - No Smell	
Pond B	1/12/22 13:40	13.8	21.5	Green	1 - No Smell	
Pond B	2/12/22 11:49	18.2	21.7	Green	1 - No Smell	
Pond B	5/12/22 12:06	8.5	20.1	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	6/12/22 12:00	9.6	21.8	Green	1 - No Smell	
Pond B	7/12/22 10:38	10.4	20.4	Green	1 - No Smell	
Pond B	8/12/22 10:24	11.1	20.2	Green	1 - No Smell	
Pond B	9/12/22 10:20	11.6	20.8	Green	1 - No Smell	
Pond B	12/12/22 09:31	6.21	22.2	Green	1 - No Smell	
Pond B	13/12/22 09:19	15.97	23.7	Green	1 - No Smell	
Pond B	14/12/22 10:00	16.1	25	Green	1 - No Smell	
Pond B	15/12/22 10:00	14.8	24.2	Green	1 - No Smell	
Pond B	16/12/22 09:45	15.6	24	Green	1 - No Smell	
Pond B	19/12/22 09:30	15.5	23.9	Green	1 - No Smell	
Pond B	20/12/22 08:56	17.3	23.8	Green	1 - No Smell	
Pond B	21/12/22 11:24	15.8	22.5	Green	1 - No Smell	floating sludge from dredging process
Pond B	22/12/22 08:15	9.85	20.9	Green	1 - No Smell	
Pond B	23/12/22 09:48	14	22.7	Green	1 - No Smell	
Pond B	26/12/22 07:30	17.8	22.2	Green	1 - No Smell	
Pond B	27/12/22 07:30	16.1	22	Green	1 - No Smell	
Pond B	28/12/22 09:00	20	22.2	Green	1 - No Smell	
Pond B	29/12/22 08:23	5.9	23.7	Green	1 - No Smell	
Pond B	30/12/22 10:54	6.6	24.7	Green	1 - No Smell	
Pond B	2/1/23 09:00	6.9	22.1	Green	1 - No Smell	
Pond B	3/1/23 22:00	10.9	22.6	Green	1 - No Smell	
Pond B	4/1/23 09:02	9.3	22.8	Green	1 - No Smell	
Pond B	5/1/23 10:00	4.8	21.8	Green	1 - No Smell	
Pond B	6/1/23 10:00	4.8	21.8	Green	1 - No Smell	
Pond B	9/1/23 10:30	7.8	22.5	Green	1 - No Smell	
Pond B	10/1/23 09:58	17.2	21.7	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	12/1/23 09:30	12.5	21.7	Green	1 - No Smell	
Pond B	12/1/23 09:45	10	20.7	Green	1 - No Smell	
Pond B	13/1/23 09:00	10.1	20.8		1 - No Smell	
Pond B	16/1/23 10:09	10.1	23	Green	1 - No Smell	
Pond B	17/1/23 10:00	10.3	23.5	Green	1 - No Smell	
Pond B	18/1/23 09:24	10.1	24.6	Green	1 - No Smell	
Pond B	19/1/23 11:00	11.8	24.2	Green	1 - No Smell	
Pond B	20/1/23 12:00	4.4	24.3	Green	1 - No Smell	
Pond B	23/1/23 11:21	11	23.8	Green	1 - No Smell	
Pond B	24/1/23 09:34	13.4	23.8	Green	1 - No Smell	
Pond B	25/1/23 09:25	14.5	23.4	Green	1 - No Smell	
Pond B	26/1/23 09:30	13.8	24.8	Green	1 - No Smell	
Pond B	27/1/23 09:50	11.8	24.4	Green	1 - No Smell	
Pond B	30/1/23 10:00	12.4	24.9	Green	1 - No Smell	
Pond B	31/1/23 14:50	13.5	24.2	Green	1 - No Smell	
Pond B	1/2/23 08:55	1.53	23.3	Green	1 - No Smell	
Pond B	2/2/23 09:12	3.93	22.9	Green	1 - No Smell	
Pond B	3/2/23 09:30	5.2	23.1	Green	1 - No Smell	
Pond B	6/2/23 08:30	4.6	22.8	Green	1 - No Smell	
Pond B	7/2/23 09:18	11.51	23.6	Green	1 - No Smell	
Pond B	8/2/23 08:28	8.3	22.7	Green	1 - No Smell	
Pond B	9/2/23 09:00	7.44	22.7	Green	1 - No Smell	
Pond B	10/2/23 11:00	8.8	23.1	Green	1 - No Smell	
Pond B	13/2/23 09:00	2.2	22.8	Green	1 - No Smell	
Pond B	14/2/23 09:15	2.8	22.9	Green	1 - No Smell	
Pond B	15/2/23 10:05	4.6	18.3	Green	1 - No Smell	

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	16/2/23 10:55	3.9	19.1	Green	1 - No Smell	
Pond B	17/2/23 09:05	3.5	17.5	Green	1 - No Smell	
Pond B	20/2/23 11:00	4.6	21.9	Green	1 - No Smell	
Pond B	21/2/23 14:30	0.9	21.7	Green	1 - No Smell	
Pond B	22/2/23 20:45	0.6	21.3	Green	1 - No Smell	
Pond B	23/2/23 09:15	1.4	21.1	Green	1 - No Smell	
Pond B	24/2/23 09:00	5.6	18.7	Green	1 - No Smell	
Pond B	27/2/23 14:30	18.3	21.4	Green	1 - No Smell	
Pond B	28/2/23 08:45	8.8	18.4	Green	1 - No Smell	
Pond B	1/3/23 09:49	13	20.5	Green	1 - No Smell	
Pond B	2/3/23 10:26	8.3	21.2	Green	1 - No Smell	
Pond B	3/3/23 11:47	5.2	20.8	Green	1 - No Smell	
Pond B	6/3/23 10:04	12.9	20.6	Green	1 - No Smell	
Pond B	7/3/23 10:35	9.7	18.9	Green	1 - No Smell	
Pond B	8/3/23 22:00	5.6	20.3	Green	1 - No Smell	
Pond B	9/3/23 09:30	1.2	20.3	Green	1 - No Smell	
Pond B	10/3/23 09:15	3.2	20.7	Green	1 - No Smell	
Pond B	13/3/23 09:30	2.8	20.5	Green	1 - No Smell	
Pond B	14/3/23 09:30	8.7	18.6	Green	1 - No Smell	
Pond B	15/3/23 11:47	8.2	20.2	Green	1 - No Smell	
Pond B	16/3/23 11:27	5.4	19.5	Green	1 - No Smell	
Pond B	17/3/23 12:02	4.1	19.6	Green	1 - No Smell	
Pond B	20/3/23 12:00	9.4	19.8	Green	1 - No Smell	
Pond B	21/3/23 12:15	9.8	19.4	Green	1 - No Smell	
Pond B	22/3/23 22:00	8.4	19.6	Green	1 - No Smell	
Pond B	23/3/23 09:30	6.6	22.1		1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	27/3/23 09:30	3.2	18.8	Green	1 - No Smell	
Pond B	28/3/23 21:10	4.7	22.9	Green	1 - No Smell	
Pond B	29/3/23 11:32	11.6	16	Green	1 - No Smell	
Pond B	30/3/23 10:07	7.3	15.2	Green	1 - No Smell	
Pond B	3/4/23 09:37	19.3	18.9	Green	1 - No Smell	
Pond B	4/4/23 09:42	17.9	18.3	Green	1 - No Smell	
Pond B	5/4/23 09:30	15.2	18.1	Green	1 - No Smell	
Pond B	6/4/23 08:30	5.9	17.3	Green	1 - No Smell	
Pond B	7/4/23 09:37	5.1	16.5	Green	1 - No Smell	
Pond B	10/4/23 09:39	12	17	Green	1 - No Smell	
Pond B	11/4/23 11:30	10.5	18.7	Green	1 - No Smell	
Pond B	12/4/23 11:00	7.4	18.2	Green	1 - No Smell	
Pond B	13/4/23 11:02	15.6	19.5	Green	1 - No Smell	
Pond B	14/4/23 10:30	17.1	18.8	Green	1 - No Smell	
Pond B	17/4/23 09:30	14.7	16.3	Green	1 - No Smell	
Pond B	18/4/23 10:08	9.7	16.3	Green	1 - No Smell	
Pond B	19/4/23 10:00	5.1	16.4	Green	1 - No Smell	
Pond B	20/4/23 09:00	3.7	16.5	Green	1 - No Smell	
Pond B	25/4/23 08:39	3.5	14.6	Green	1 - No Smell	
Pond B	26/4/23 10:25	10.8	15.5	Green	1 - No Smell	
Pond B	27/4/23 10:52	7.6	15	Green	1 - No Smell	
Pond B	28/4/23 11:24	10.6	14.7	Green	1 - No Smell	
Pond B	1/5/23 11:31	17.2	16.4	Green	1 - No Smell	
Pond B	2/5/23 11:26	1.3	16	Green	1 - No Smell	
Pond B	3/5/23 11:00	9.8	18	Green	1 - No Smell	
Pond B	5/5/23 12:24	13.6	18.8	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	8/5/23 10:00	9.7	18.1	Green	1 - No Smell	
Pond B	9/5/23 08:35	4.4	17.1	Green	1 - No Smell	
Pond B	10/5/23 11:31	2.2	16.8	Green	1 - No Smell	
Pond B	11/5/23 10:35	8.3	12.9	Green	1 - No Smell	
Pond B	12/5/23 12:02	9	12.1	Green	1 - No Smell	
Pond B	15/5/23 11:30	18	14.5	Green	1 - No Smell	
Pond B	16/5/23 12:15	18.9	14.6	Green	1 - No Smell	
Pond B	17/5/23 09:00	9.2	12.6	Green	1 - No Smell	
Pond B	18/5/23 10:00	12.62	13.7	Green	1 - No Smell	
Pond B	19/5/23 09:30	11.7	13.6	Green	1 - No Smell	
Pond B	22/5/23 09:45	8.3	13.4	Green	1 - No Smell	
Pond B	23/5/23 10:30	8	13.2	Green	1 - No Smell	
Pond B	24/5/23 09:19	6.4	12.3	Green	1 - No Smell	
Pond B	25/5/23 10:50	10.9	12.6	Green	1 - No Smell	
Pond B	26/5/23 11:22	8	12.5	Green	1 - No Smell	
Pond B	29/5/23 10:30	9.9	13.7	Green	1 - No Smell	
Pond B	30/5/23 09:46	5.8	14	Green	1 - No Smell	
Pond B	31/5/23 09:45	6.9	13.6	Green	1 - No Smell	
Pond B	1/6/23 09:00	5.3	14	Green	1 - No Smell	
Pond B	1/6/23 09:00	5	14.7	Green	1 - No Smell	
Pond B	5/6/23 08:44	5.3	11.9	Green	1 - No Smell	
Pond B	6/6/23 10:00	5.4	11.2	Green	1 - No Smell	
Pond B	7/6/23 10:27	6.6	11	Green	1 - No Smell	
Pond B	8/6/23 13:02	9.6	11.1	Green	1 - No Smell	
Pond B	9/6/23 12:03	8.7	11.6	Green	1 - No Smell	
Pond B	12/6/23 12:02	10.5	11.4	Green	1 - No Smell	

Resource Consent Compliance Report
Appendix D Pond Appearance

	Date/Time	Dissolved Oxygen (mg/L)	Temperature (°C)	Pond Colour	Odour	Pond A Comments
Pond B	13/6/23 09:01	8.7	9.3	Green	1 - No Smell	
Pond B	14/6/23 09:30	8.3	10.6	Green	1 - No Smell	
Pond B	15/6/23 10:00	6.3	10.2	Green	1 - No Smell	
Pond B	16/6/23 09:30	7.6	10	Green	1 - No Smell	
Pond B	19/6/23 10:02	12	11.1	Green	1 - No Smell	
Pond B	20/6/23 10:38	10.3	10.4	Clear	1 - No Smell	
Pond B	21/6/23 10:17	11.4	10.8	Clear	1 - No Smell	
Pond B	23/6/23 10:00	9.4	10.4	Clear	1 - No Smell	
Pond B	26/6/23 10:00	9.2	11.6	Green	1 - No Smell	
Pond B	27/6/23 08:45	8.3	11.3	Green	1 - No Smell	
Pond B	28/6/23 09:30	9.6	11.5	Clear	1 - No Smell	
Pond B	29/6/23 09:20	8.8	10.8	Clear	1 - No Smell	
Pond B	30/6/23 09:40	11.8	11.3	Clear	1 - No Smell	

Appendix E LDTA Appearance