Site Compliance Report

Site No:	REG603968
Site Owner:	Waikato District Council
Site Name:	Ngaruawahia WWTP: Old Taupiri Rd, Hopuhopu
Date:	18 January 2022

1 INTRODUCTION

The following resource consents are held for the site:

Resource Consent	Status	Description	Commenced	Expiry
AUTH119642.01.02	Current	Discharge up to 11,200 cubic metres per day of treated wastewater from the Ngaruawahia WWTP into the Waikato River		31/03/2029
AUTH119643.01.01	Current	Discharge contaminants to air from activities associated with the Ngaruawahia WWTP	14/04/2011	31/03/2029
AUTH119644.01.01	Current	Discharge treated municipal wastewater sludge onto land during pond de-sludging from activities associated with the Ngaruawahia WWTP		31/03/2029
AUTH119645.01.01	Current	Use, upgrade and maintain an outflow pipeline structure including an outflow diffuser on the bed of the Waikato River for the discharge of treated wastewater from the Ngaruawahia WWTP		31/03/2029
AUTH119646.01.01	Current	Discharge treated wastewater (via seepage) to land and groundwater from activities associated with the Ngaruawahia WWTP		31/03/2029
AUTH124828.01.01	Current	To discharge biosolids to land	23/10/2012	30/11/2022

This report examines the level of compliance of Waikato District Council with the selected conditions of the resource consents.

2 BACKGROUND

The Ngaruawahia wastewater treatment plant (WWTP) is operated by Watercare Services Limited under a contractual arrangement with Waikato District Council (WDC) on behalf of the community.

The Ngaruawahia WWTP is comprised of the following processes:

- Raw Influent screening;
- Oxidation pond;
- Pond outlet screening;
- Solids removal with ACTIFLO and chemical dosing including;
 - o Coagulant (alum) dosing;
 - o Polymer dosing;
 - o Caustic dosing.
 - Ultraviolet (UV) disinfection;



- Gravel-bed/rock lined channel;
- Waikato River outfall diffuser.



2.1 PREVIOUS COMPLIANCE HISTORY

A formal warning (doc ref 18433147) was issued in relation to the significant non-compliance attained in the previous annual audit for the period 1 July 2019 to 30 June 2020.

Date Period	Site Compliance
1 July 2020 to 30 June 2021	Moderate Non-Compliance
1 July 2019 to 30 June 2020	Significant non-compliance
1 July 2018 to 30 June 2019	Partial compliance
1 July 2017 to 30 June 2018	High level of compliance
1 July 2016 to 30 June 2017	High level of compliance

Please note: For the 2021-22 compliance year WRC has commenced using the new MfE compliance monitoring scoring regime that has been implemented nationwide for all regional councils. This new scoring system is designed to bring all the regions into line and make the measuring of national compliance much easier to compare.

3 COMPLIANCE ASSESSMENT

Unless otherwise specified in this document this assessment covers the period from **1 July 2020 to 30 June 2021.**

This compliance assessment has been undertaken based on the submitted annual report by the consent holder, monitoring data supplied throughout the compliance period and any site inspections undertaken. Some administration, duplicate or irrelevant conditions have been omitted for brevity.

Please note that a description of the classification system used to describe compliance status is given in Appendix 1 of this report.

AUTH119642.01.02 - Water - sewage

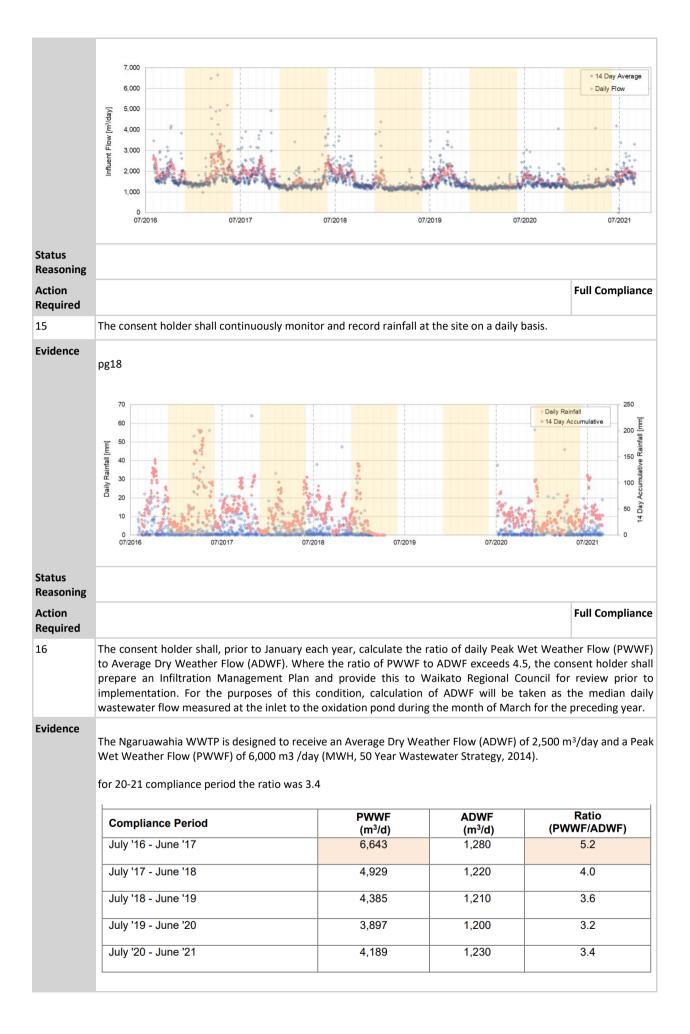
Activity Authorised: Discharge up to 11,200 cubic metres per day of treated wastewater from the Ngaruawahia WWTP into the Waikato River

Condition No.	Description	
1	The wastewater treatment and disposal system shall be designed, operated and maintained in gewith: i) The application for this resource consent; ii) The document titled "Waikato District Cou and Huntly Wastewater Resource Consents Project, Resource Consents Application: Assessment Environment" dated March 2009 and recorded on Waikato Regional Council's document sy 1458402; and iii) The document titled "Waikato District Council Ngaruawahia and Huntly Wast Consents Project, Resource Consents Application: Response to RMA Section 92(1) Requinformation" dated August 2009 and recorded on Waikato Regional Council's document sy 1531323; subject to the conditions below which shall prevail should any inconsistency occonditions and the above documents.	ncil Ngaruawahia of Effects on the ystem numbered ewater Resource ests for Further ystem numbered
Evidence		
Status Reasoning		
Action Required		Full Compliance
3	Notwithstanding the stated limits in conditions of this consent, the consent holder shall make a practical efforts to ensure that the final wastewater quality is maximised within the capabilities system at all times.	
Evidence		
Status Reasoning		
Action Required		Full Compliance
4	The maximum volume of treated wastewater discharged shall not exceed 11,200 cubic metres per day.	
Evidence	Compliant (see chart pg 24)	

	5,000	 ◆ 14 Daily Average ◆ Daily Flow
	4,000 1,000 0,	07/2021
Status Reasoning		
Action Required		Full Compliance
	The consent holder shall ensure that, no later than 1 December 2012, the quality of the discharge immediately prior to entering the rock-lined channel shall comply with the following limits: i) The pH of the discharge shall not be less than 6 or greater than 9 pH units; ii) The median five day carbonaceous biochemical oxygen demand concentration shall not exceed 30 grams per cubic metre and the 90th percentile shall not exceed 60 grams per cubic metre; iii) The median suspended solids concentration shall not exceed 30 grams per cubic metre and the 90th percentile shall not exceed 60 grams per cubic metre; v) The median ammoniacal-nitrogen concentration shall not exceed 10 grams per cubic metre and the 90th percentile shall not exceed 10 grams per cubic metre and the 90th percentile shall not exceed 20 grams per cubic metre; v) The median total nitrogen (TN) concentration shall not exceed 25 grams per cubic metre; vii) The median summer (December to May inclusive) total nitrogen (TNsummer) concentration shall not exceed 57 kilograms per day; viii) The median total phosphorus (TP) concentration shall not exceed 8 grams per cubic metre; x) The median summer (December to May inclusive) total phosphorus (TP) concentration shall not exceed 8 grams per cubic metre; x) The median summer (December to May inclusive) total phosphorus (TP) and exceed 126 cfu per 100 millilitres. For the purposes of this condition, to determine compliance with the median limits, no more than 3 of the 6 monthly samples in any given summer (December to May) shall exceed the specified limit. To determine compliance with the summer median limits, no more than 3 of the 6 monthly samples in any given summer (December to May) shall exceed the specified limit. To determine compliance with the summer median limits, no more than 3 of the 6 monthly samples in any given summer (December to May) shall exceed the specified limit. To determine compliance with the summer median limits, no more than 3 of the 6 monthly samples in any given summer (December t	
Evidence	i) The pH of the discharge shall not be less than 6 or greater than 9 pH units; - Compliant	
	ii) The median five-day carbonaceous biochemical oxygen demand concentration shall not exce cubic metre and the 90th percentile shall not exceed 60 grams per cubic metre; Compliant	ed 30 grams per
	iii) The median suspended solids concentration shall not exceed 30 grams per cubic metre and th shall not exceed 60 grams per cubic metre; Compliant	e 90th percentile
	iv) The median ammoniacal-nitrogen concentration shall not exceed 10 grams per cubic mer percentile shall not exceed 20 grams per cubic metre; Non-compliant 26.6g/m ³	re and the 90th
	v) The median total nitrogen (TN) concentration shall not exceed 25 grams per cubic metre; Non-c	ompliant 30g/m ³
	vi) The median summer (December to May inclusive) total nitrogen (TNsummer) concentration sh grams per cubic metre; Non-compliant 26g/m ³	all not exceed 20
	vii) The median summer (December to May inclusive) total nitrogen load (TNload) for Ngaruaw Treatment Plant and Huntly Wastewater Treatment Plant combined shall not exceed 57 kil Compliant	

	ix) The median summer (December to May inclusive) total phosphorus (TPsummer) concentration 8 grams per cubic metre; Compliant	shall not exceed
	x) The median summer (December to May inclusive) total phosphorus load (TPload) for Ngaruawahia Wastev Treatment Plant and Huntly Wastewater Treatment Plant combined shall not exceed 17.3 kilograms per Compliant	
	xi) The median Escherichia coli (E.coli) concentration shall not exceed 126 cfu per 100 millilitres. of this condition, to determine compliance with the median limits (excluding E.coli) no more th any 12 consecutive monthly samples over the period 1 July to 30 June each year shall exceed the s determine compliance with the summer median limits, no more than 3 of the 6 monthly samp summer (December to May) shall exceed the specified limit. To determine compliance with the m no more than 26 samples in any 52 consecutive weekly samples shall exceed the specified limit compliance with the 90th percentile limits, no more than one sample in any ten consecutive m events shall exceed the specified limit Compliant	an six samples in specified limit. To oles in any given edian E.coli limit, it. To determine
Status Reasoning		
Action Required	Please take action to improve the wastewater treatment quality to compliant levels.	Moderate Non- Compliance
7	Decommissioning of the wetland and gravel filter and construction of the rock-lined channel shall 23 April 2013.	be completed by
Evidence		
Status Reasoning		
Action Required		Full Compliance
8	The consent holder shall decommission the wetland and gravel filter, and construct the rock-line a manner so as to minimise sediment losses. To this end the works shall be undertaken in such they are consistent with the Waikato Regional Council document titled "Erosion and Sediment Cor for Soil Disturbing Activities" (Technical Report No.2009/02, dated January 2009).	a manner so that
Evidence		
Status Reasoning		
Action Required		Full Compliance
9	At least one month prior to decommissioning the wetland and gravel filter, the consent holded Management Plan to the Waikato Regional Council which details as a minimum how the decome and construction of the rock-lined channel will be undertaken, the design plan for the rock-lined of compliance will be achieved with condition 8. Note: The Waikato Regional Council reserves the comment on the Management Plan submitted and any subsequent changes to the Management	missioning works channel, and how ne right to make
Evidence		
Status Reasoning		
Action Required		Not assessed
10	Should the measured median concentration or 90th percentile concentration for either five-d biochemical oxygen demand, suspended solids, or ammoniacal-nitrogen exceed 90% of the cor specified in condition 6 of this consent, for 2 of 3 consecutive years then a "trigger" level will be holder shall design, build and commission the appropriate upgrade to the treatment process within the "trigger" level is reached. The upgrade undertaken shall be designed to reduce the median of concentration, as applicable, for the parameter for which the trigger was reached to less than 80% limit for that parameter.	nsented limits, as met. The consent in two years after ir 90th percentile
Evidence	The Trigger Level was met for ammoniacal nitrogen median and 90th percentile concentrations d compliance years 2018/19, 2019/20 and 2020/21.	ue to breaches in

As a result of the trigger level for ammoniacal nitrogen being met the following action is required to be taken	
the consent holder.	
The consent holder shall design, build and commission the appropriate upgrade to the treatment process with two years after the "trigger" level is reached. The upgrade undertaken shall be designed to reduce the median 90th percentile concentration, as applicable, for the parameter for which the trigger was reached to less than 8 of the consented limit for that parameter.	
The consent holder shall design, build and commission the appropriate upgrade to the treatment process within two years after the "trigger" level is reached which was 30 June 2021. That date for an upgrade is 1 July 2023 and a plan for the upgrade to the plant should be submitted to WRC as soon as possible.	
Should the measured median concentration for total nitrogen (TN), total phosphorus (TP) or E.coli exceed 90% the consented limits, as specified in condition 6 of this consent, for 2 of 3 consecutive years then a "trigger" lew will be met. The consent holder shall design, build and commission the appropriate upgrade to the treatmet process within two years after the "trigger" level is reached. The upgrade undertaken shall be designed to reduce the median concentration for the parameter for which the trigger was reached to less than 80% of the consent limit for that parameter.	
The Trigger Level was met for TN median and summer median concentrations due to breaches in compliance yes 2018/19, 2019/20 and 2020/21.	
The consent holder shall design, build and commission the appropriate upgrade to the treatment process within two years after the "trigger" level is reached. The upgrade undertaken shall be designed to reduce the median concentration for the parameter for which the trigger was reached to less than 80% of the consented limit for that parameter.	
The consent holder is required to design, build and commission the appropriate upgrade to the treatment process within two years after the "trigger" level is reached. the trigger level was reached by 30 June 2021. therefore, the date for the upgrade to be commissioned by 1 July 2023.	
Should the measured median summer (December to May inclusive) mass load for either total nitrogen (TNload) total phosphorus (TPload) for Huntly and Ngaruawahia combined exceed 90% of the consented limit, as specifi in condition 6 of this consent, on 2 of 3 consecutive summer periods then a "trigger" level will be met. The consecutive shall design, build and commission the appropriate upgrade to the treatment process within two years af the "trigger" level is reached. The upgrade undertaken shall be designed to reduce the combined summer may load of the nutrient for which the trigger was reached to less than 80% of the consented limit for that parameters.	
The Trigger Level for Condition 12 was not met for any consecutive years.	
Full Complian	
The consent holder shall continuously monitor the flow rate of wastewater entering and leaving the treatment plant and shall record the total daily influent and discharge volumes.	
5,000 4,000	



Status Reasoning		
Action Required		Full Compliance
17	The consent holder shall define a sampling location or locations and the sampling method or me for monitoring the parameters in conditions 5 and 6. The location(s) and method(s) used for the to the satisfaction of Waikato Regional Council.	
Evidence		
Status Reasoning		
Action Required		Full Compliance
18	The consent holder shall take grab samples of the treated wastewater on a monthly basis, from the sampling location specified in condition 17 of this consent, for the purpose of determining compliance with conditions 5 and 6. E.coli grab samples shall be taken on a weekly basis.	
Evidence		
Status Reasoning		
Action Required		Full Compliance
19	All wastewater quality analyses shall be undertaken by an IANZ accredited or equivalent laboratory. All methods used shall be appropriate for the wastewater analyses undertaken.	
Evidence		
Status Reasoning		
Action Required		Full Compliance
20	The consent holder shall prepare an Operations and Management Plan. This Plan shall be prepared and experienced person and shall detail how the treatment system is to be operated at ensure compliance with the conditions of this consent and consent 119643, 119644 and 119645. A Plan shall include the following matters: i) A description of the wastewater treatment plant include for the wastewater treatment facilities; ii) A description and schedule of the routine inspection maintenance procedures to be undertaken to ensure effective plant operation; iv) A schedule of carried out to ensure effective plant operation and compliance with consent conditions; v) A splan; vi) A schedule of the treatment plant critical aspects and the detailed response and com address anticipated variations from normal plant operation; vii) Procedures for recording routine all repairs that are undertaken; viii) Chain of command, responsibility and notification protocol infiltration management plan; x) The operation of the de-sludging pond; xi) Procedures for i reviewing the plant management plan. This Plan shall be lodged with Waikato Regional Council of commencement of this consent, and shall be reviewed and updated annually and as required changes in plant operation or management. An electronic copy of the management plan shall be regioned to make comment on the Operations and Management Plan submitted and any subset the Plan.	and maintained to As a minimum the ding as-built plans of construction of monitoring and monitoring to be sampling location tingency plans to maintenance and ls; ix) The current improving and/or within six months as a result of any all be provided to al Council reserves
Evidence	i) A description of the wastewater treatment plant including as-built plans for the wastewater tre Compliant with the description but no as-builts were included.	eatment facilities
	ii) A description of the sequence, timing and methods of construction of upgrades to the treatmer Plan states:	nt plant; the O&N
	There are no planned upgrade works for the plant. There are a couple of matters that are still of time of this update of the O & M Plan. These include: The remaining sludge that is stored in the st to be removed and the remainder of the pond area converted to Geotube pad; There would be installing a rectangular discharge weir at the inlet to the Johnson screw screen to prevent th accidentally lowered if certain valves are left in the "open" position or if the volume processed th is excessive for a few days. As the connected population increases the quality of organic treatment	orage pond needs an advantage in e oxidation being hrough the Actiflo

	pond will deteriorate and further in-pond treatment may be required. The quality of the effluence needs to be monitored regularly and upgrade works planned as needed. The upgrade to in-pond to to require additional aeration by way of bottom-deployed air diffusers, possibly with Aqua Mats could be staged.	reatment is likely
	iii) A description and schedule of the routine inspection, monitoring and maintenance procedures to ensure effective plant operation; - Compliant	to be undertaken
	iv) A schedule of monitoring to be carried out to ensure effective plant operation and complian conditions; - Compliant	nce with consent
	v) A sampling location plan; Non-compliant as no sampling location plan is included in the plan	
	vi) A schedule of the treatment plant critical aspects and the detailed response and contingency anticipated variations from normal plant operation; Compliant	plans to address
	vii) Procedures for recording routine maintenance and all repairs that are undertaken; Compli better	ant but could be
	viii) Chain of command, responsibility and notification protocols; Non-compliant as the listed sta moved on from WDC	ff have nearly all
	ix) The current infiltration management plan; Non-compliant, some details about infiltration are plan.	included but no
	x) The operation of the de-sludging pond; Non-compliant, no specific information on the desludging pond	operation of the
	xi) Procedures for improving and/or reviewing the plant management plan. Non-compliant, no det or reviewing the plan are included.	ails on improving
	This Plan shall be lodged with Waikato Regional Council within six months of commencement of shall be reviewed and updated annually and as required as a result of any changes in pla management. An electronic copy of the management plan shall be provided to Waikato Regional working days of a request to do so	ant operation or
Status Reasoning	The plan was submitted in 2014 (doc ref 3516605) and has not been reviewed or updated since t	nat time.
Action Required	Please review and update the O&M plan to ensure the plan is relevant and matches the current site layout and processes that exist on site. Don't forget to update the contact details.	Low Risk Non- Compliance
21	The treatment system and discharge to the Waikato River shall be operated, maintained a appropriately experienced personnel in accordance with the Operations and Management R condition 20 of this consent.	
Evidence	WDC/WSL staff are appropriately experienced personnel however the O&M plan does not include aspects of the site operation that they currently undertake.	mention of many
Status Reasoning		
Action Required		Full Compliance
22	The consent holder shall ensure contractors are made aware of the conditions of this resource co compliance with those conditions.	nsent and ensure
Evidence		
Status Reasoning		
Action Required		Full Compliance
23	In conjunction with consent 119643, the consent holder shall maintain and keep a Complaint complaints made about the treatment and discharge operations received by the consent holder. Trecord: i) The date, time and duration of the event/incident that has resulted in the complaint; i	The Register shall

28 E vidence	Ports 2, 4, 6 and 8 of the diffuser, as numbered from the true right bank of the Waikato River, sha unless specifically permitted in writing by the Waikato Regional Council. Unable to assess which ports were open or blocked/closed due to a lack of information in the dive	
Action Required		Full Compliance
Status Reasoning		
Evidence		
Required	The discharge to the Waikato River shall be via a multi-port diffuser located on the bed of the Wa	ikato River.
Status Reasoning Action		Not assessed
Evidence	No details or reports of any erosion issues at the Ngaruawahia site have been reported	
26	The consent holder shall be responsible for any erosion that occurs as a result of the exercise of for any erosion works that become necessary to preserve the integrity and stability of the bank. River. Note: A separate resource consent may be required as a result of the need to undertake works. Any such consent shall be obtained by the consent holder at their sole expense prior to undertaken.	s of the Waikato erosion contro
Action Required		Not assessed
Status Reasoning		
Evidence		
25	The consent holder shall maintain landscape and screen planting as detailed in the report titled "Waikato Distric Council Ngaruawahia Waste Water Treatment Visual Analysis", dated March 1998, and recorded on Waikat Regional Council's document system numbered 67984.	
Action Required	Please ensure that WDC/WSL places and maintains a sign in the vicinity of the discharge to the Waikato River, in such a way that it is conspicuous to river users, advertising of the presence of the wastewater discharge and warning against the use of the location for swimming	Low Risk Non Compliance
Status Reasoning		
Evidence	The dive report of March 2021 states that no sign is in place.	
24	The consent holder shall place and maintain a sign in the vicinity of the discharge to the Waikato River, in such a way that it is conspicuous to river users, advertising of the presence of the wastewater discharge and warning against the use of the location for swimming.	
Reasoning Action Required		Full Compliance
Status	WDC operates a CRM complaints system	
Evidence	the complainant when the event/incident was detected; iii) The possible cause of the incident; conditions and wind direction at the site when the incident allegedly occurred, if significant to t Any corrective action undertaken by the consent holder in response to the complaint. The Regist available to the Waikato Regional Council at all reasonable times. Complaints which may indicate with the conditions of this resource consent shall be forwarded to the Waikato Regional Council adays of the complaint being received.	he complaint; v er shall be made non-compliance

Status Reasoning		
Action Required		Low Risk Non- Compliance
29	The consent holder shall maintain the outfall diffuser in an operational state such that the discharge from ports 1, 3, 5, 7 and 9 is uniform along the operational length of the diffuser and providing effective dispersion of the wastewater in the river flow.	
Evidence	Unable to assess which ports were open or blocked/closed due to a lack of information in the dive 2021.	e report of March
Status Reasoning		
Action Required		Low Risk Non- Compliance
30	The consent holder shall undertake a survey of the diffuser at six monthly intervals to demons with conditions 28 and 29 of this consent. The frequency of the surveys may be reduced to no less years following written request to and approval from the Waikato Regional Council. The results of any recommendation as to the frequency of future surveys shall be provided to the Waikato Region 30 days of the survey.	s than every two each survey and
Evidence	Dive surveys now undertaken at yearly intervals by mutual agreement between the consent hold	er and WRC
Status Reasoning		
Action Required		Full Compliance
31	The consent holder shall forward the results of the monitoring undertaken pursuant to conditions the Waikato Regional Council, via electronic means, within one month of receipt of the result holder.	
Evidence		
Status Reasoning		
Action Required		Full Compliance
32	The consent holder shall provide to the Waikato Regional Council, Waikato-Tainui Te Kauhanga (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu a written report by 30 Sept addressing the following: i) A summary of the monitoring results required by conditions of this for the year ending 30 June; ii) Critically analyse the monitoring data collected and comment trends; iii) Comment on compliance with the conditions of this resource consent; iv) Any is compliance or difficulties in achieving compliance with the conditions of this resource consent and a summary of the efficacy of any remedial works undertaken; v) Comment on infiltration rates works planned and the efficacy of these works in subsequent reports; vi) Any other issue conside the consent holder. A quarterly report shall be prepared and distributed at the end of March, Jun of each year. These progress reports shall address the monitoring results for the preceding 12 m the rolling 12 month median value. The reports shall be distributed to Waikato Regional Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhanganui Incorporated (Claims and Environmental Unit), and Hopuhopu Manawhenua Roopu Council Te Kauhan	ember each year resource consent on any emerging reasons for non- d a description of and any remedial lered relevant to be and December nonths, including I, Waikato-Tainui
Evidence	WRC assumes this is being done	
Status Reasoning		
Action Required		Full Compliance
33	The consent holder shall notify the Waikato Regional Council within 24 hours (where practicable holder becoming aware of the limits specified in conditions 4, 5 and 6 of this resource consent be any accidental discharge, plant breakdown or other circumstance which is likely to result in the limit	ing exceeded, or

	being exceeded. The consent holder shall, within 10 working days of the incident occurring, provid to the Waikato Regional Council, identifying the breach, possible causes and steps to ensure future for the statement of the sta	
Evidence	The consent holder notifies WRC of any significant issue pertaining to plant performance.	
Status Reasoning		
Action Required		Full Compliance
34	The consent holder shall as soon as reasonably practicable, notify the Waikato District Council (Community Assets – Operations Unit), Watercare Services Limited, and the Waikato Regional Council of an event that may in itself, or as a consequence of an event, have a significant adverse effect on the quality of the water within the Waikato River at the abstraction points of the Hopuhopu, Huntly, Te Kauwhata and Tuakau (Auckland) Water Supplies. The consent holder shall record the reasons why the situation occurred, the actions taken by the consent holder and an assessment of what measures can be adopted in the future to minimise such occurrences and upon written request from the Waikato Regional Council provide a report to the Waikato Regional Council and the Medical Officer of Health addressing this matter.	
Evidence		
Status Reasoning		
Action Required		Not assessed
35	The consent holder shall, by 30 September 2015 and every five years thereafter, submit to the Council a Wastewater Treatment Review Report, the scope of which shall include: i) An analysis of of the treatment system with respect to the initial plant design; ii) Identification of any deficie design or operation and the measures that are or have been undertaken to address these defanticipated (or actual) improvement in treated wastewater quality; iii) Timetable for the treatmupgrade to cater for actual population growth; iv) A review of the trend in the combined contribut. Ngaruawahia and Huntly wastewater treatment plant discharges to the total nitrogen and total in the Waikato River at Mercer Bridge since commencement of this consent.	the performance ncies in the plant iciencies and the nent plant capital ition made by the
Evidence	A Wastewater Treatment Review Report was submitted to WRC in 2015. a second report was submitted in November 2021.	due in 2020 and
Status Reasoning		
Action Required		Low Risk Non- Compliance
36	The consent holder shall retain suitably qualified persons to review the findings outlined in Appendix 5 "Alternatives Study" of the AEE, recorded on Waikato Regional Council's document system numbered 1458402, at intervals as below. The investigations shall include the feasibility, technology and economics of alternative collection, treatment and disposal systems for wastewater including land-based disposal options. The reviews shall be carried out in consultation with Waikato-Tainui Te Kauhanganui Incorporated (Claims and Environmental unit) and Hopuhopu Manawhenua Roopu and the findings of the reviews shall be adopted by Waikato District Council for the proposed upgrade of the treatment system. The first review shall focus on alternative treatment options for removal of algae from the effluent after the pond systems and UV disinfection prior to the proposed rock-lined channel. The review shall include (but not be limited to) consideration of sand filter, Bio-Filtro and an algae treatment system that has been identified by Hopuhopu Manawhenua Roopu. This review shall be completed and reported to the Waikato Regional Council, Waikato-Tainui Te Kauhanganui Incorporated (Claims and Environmental unit) and the Hopuhopu Manawhenua Roopu not later than 30 September 2011. The second review shall consider all aspects that are covered in Appendix 5 of the AEE and shall include (but not be limited to) consideration of Bio-Filtro and an algae treatment system that has been identified by Hopuhopu Manawhenua Roopu. The review shall consider all aspects that are covered in Appendix 5 of the AEE and shall include (but not be limited to) consideration of Bio-Filtro and an algae treatment system that has been identified by Hopuhopu Manawhenua Roopu. The review shall be completed and reported (Claims and Environmental unit) and the Hopuhopu Manawhenua Roopu not later than 31 March 2016. The third review shall be completed and reported to Waikato Regional Council, Waikato-Tainui Te Kauhanganui Incorporated (Claims and Environme	

Evidence	The third review shall cover the same matters and options as the second review and shall be completed and reported to Waikato Regional Council, Waikato-Tainui Te Kauhanganui Incorporated (Claims and Environmental unit) and the Hopuhopu Manawhenua Roopu not later than 31 March 2022. Note: Commissioning of any treatment upgrade is subject to condition 13.	
Status Reasoning		
Action Required	Report due by 31 March 2022	Not assessed
	Authorisation Compliance:	Moderate Non- Compliance

AUTH119643.01.01 - Air - odour

Activity Aut	horised: Discharge contaminants to air from activities associated with the Ngaruawahia WWTP	
Condition No.	Description	
1	The discharge to air shall be undertaken in general accordance with: i) The application for this rest. The document titled "Waikato District Council Ngaruawahia and Huntly Wastewater Resource Resource Consents Application: Assessment of Effects on the Environment" dated March 2009 Waikato Regional Council's document system numbered 1458402; and iii) The document titled Council Ngaruawahia and Huntly Wastewater Resource Consents Project, Resource Consents Appl to RMA Section 92(1) Requests for Further Information" dated August 2009 and recorded on the Council's document system numbered 1531323; subject to the conditions below, which shall p inconsistency occur between the conditions and the above documents.	Consents Project, and recorded on "Waikato District ication: Response Waikato Regional
Evidence		
Status Reasoning		
Action Required		Full Compliance
2	The consent holder shall ensure contractors are made aware of the conditions of this resource consent and ensure compliance with those conditions.	
Evidence		
Status Reasoning		
Action Required		Full Compliance
3	The consent holder shall pay to the Waikato Regional Council any administrative charge fixed in section 36 of the Resource Management Act 1991, or any charge prescribed in accordance with under section 360 of the Resource Management Act.	
Evidence		
Status Reasoning		
Action Required		Full Compliance
4	The operation, management and maintenance of the Ngaruawahia Wastewater Treatment Plant any objectionable odours at or beyond the boundary of the properties on which the treatment p	
Evidence	No complaints or reports of any objectionable odours at or beyond the boundary of the prop compliance period	erties during this
Status Reasoning		

Action Required		Full Compliance
5	There shall be no discharge of airborne contaminants as a result of the activities authorised by this resource consen to the extent that it causes an adverse effect at or beyond the boundary of the subject property on which the treatment plant is located. Note: For the purpose of this consent, the Waikato Regional Council will use the guidelines for assessment in chapter 6.4 of the Waikato Regional Plan to determine whether adverse effects are occurring from the discharge of odour or particulate matter.	
Evidence	No complaints or reports of any airborne contaminants at or beyond the boundary of the prop compliance period	erties during this
Status Reasoning		
Action Required		Full Compliance
6	The consent holder shall prepare an Odour Management Plan. This Plan shall be prepared by a and experienced person and shall detail the methods and operational procedures adopted by th to ensure compliance with the conditions of this consent. The Plan may form part of the Management Plan specified in consent 119642. As a minimum the Odour Management Plan following matters: i) A description of the entire wastewater treatment facility; ii) A description of monitoring and maintenance procedures to be undertaken to ensure effective plant operation and consent conditions; iii) Details of operational and maintenance procedures to minimise odour release from the v) Details of operational and maintenance procedures to minimise odour release from the v) Details of operational and maintenance procedures to address power or at the treatment plant; vii) Details of the odour complaints procedure, record keeping and resp. This Plan shall be lodged with Waikato Regional Council within six months of commencement of shall be reviewed and updated annually and as required as a result of any changes in pl management. An electronic copy of the management plan shall be provided to Waikato Regional working days of a request to do so. Note: The Waikato Regional Council reserves the right to methods and subsequent changes to the Plan.	e consent holder Operations and shall address the butine inspection, d compliance with ase from the inlet e oxidation pond; ludging and pond equipment failure bonse procedure. this consent, and ant operation or Council within 10
Evidence	 i) A description of the entire wastewater treatment facility; compliant ii) A description of routine inspection, monitoring and maintenance procedures to be unde effective plant operation and compliance with consent conditions; compliant 	rtaken to ensure
	 iii) Details of operational and maintenance procedures to minimise odour release from the inl compliance as no specific procedures to minimise odours are mentioned. Sniff tests are required visited. 	•
	iv) Details of operational and maintenance procedures to minimise odour release from the oxida compliance - no specific measures relating to the oxidation pond are included	tion pond; Partial
	v) Details of operational and maintenance procedures to minimise odour release during pond des sludge drying and handling; Non-compliant - no mention of odours relating to sludge drying and	
	vi) Details of contingency plans and procedures to address power or equipment failure at the treat compliant - no specific contingencies mentioned relating to power or equipment failure and odo	
	vii) Details of the odour complaints procedure, record keeping and response procedure. Partial c information pertaining to the odour complaints procedure is included	ompliance - some
	This Plan shall be lodged with Waikato Regional Council within six months of commencement of shall be reviewed and updated annually and as required as a result of any changes in pl management. An electronic copy of the management plan shall be provided to Waikato Regional working days of a request to do so.	ant operation or
Status Reasoning	There is limited information in the O&M Plan relating to many aspects of the condition that are r	equired
Action Required	Please review the O&M plan and ensure that requirements in the conditions are covered in the Low Risk Non- plan.	

Evidence	In conjunction with consent 119642, the consent holder shall maintain and keep a Complaints Register for all complaints made about the treatment and discharge operations received by the consent holder. The Register shall record: i) The date, time and duration of the event/incident that has resulted in the complaint; ii) The location of the complainant when the event/incident was detected; iii) The possible cause of the incident; iv) The weather conditions and wind direction at the site when the incident allegedly occurred, if significant to the complaint; v) Any corrective action undertaken by the consent holder in response to the complaint. The Register shall be made available to the Waikato Regional Council at all reasonable times. Complaints which may indicate non-compliance with the conditions of this resource consent shall be forwarded to the Waikato Regional Council within 5 working days of the complaint being received.	
	WDC operates a CRM complaints system	
Status Reasoning		
Action Required		Full Compliance
8	The consent holder shall notify the Waikato Regional Council of any incident, including pow process failure, leading to a significant emission of odour from the plant, within 24 hours of t brought to the attention of the consent holder, or the next working day. A written report shall be Waikato Regional Council within seven working days of the event occurring describing the incide it occurring, its consequences (including the nature of any complaints), the measures taken to re- its effects, and any measures taken to prevent a recurrence of the event, including any change Odour Management Plan.	the incident being e forwarded to the ent, the reasons for emedy or mitigate
8 Evidence	process failure, leading to a significant emission of odour from the plant, within 24 hours of the brought to the attention of the consent holder, or the next working day. A written report shall be Waikato Regional Council within seven working days of the event occurring describing the incide it occurring, its consequences (including the nature of any complaints), the measures taken to reits effects, and any measures taken to prevent a recurrence of the event, including any change	the incident being e forwarded to the ent, the reasons for emedy or mitigate
-	process failure, leading to a significant emission of odour from the plant, within 24 hours of the brought to the attention of the consent holder, or the next working day. A written report shall be Waikato Regional Council within seven working days of the event occurring describing the incide it occurring, its consequences (including the nature of any complaints), the measures taken to reits effects, and any measures taken to prevent a recurrence of the event, including any change Odour Management Plan.	the incident being e forwarded to the ent, the reasons for emedy or mitigate
Evidence Status	process failure, leading to a significant emission of odour from the plant, within 24 hours of the brought to the attention of the consent holder, or the next working day. A written report shall be Waikato Regional Council within seven working days of the event occurring describing the incide it occurring, its consequences (including the nature of any complaints), the measures taken to reits effects, and any measures taken to prevent a recurrence of the event, including any change Odour Management Plan.	the incident being e forwarded to the ent, the reasons for emedy or mitigate

AUTH119644.01.01 - Land - sewage

Activity Authorised: Discharge treated municipal wastewater sludge onto land during pond de-sludging from activities associated with the Ngaruawahia WWTP

Condition No.	Description	
1	The sludge removal and treatment operation shall be undertaken in general accordance with: i) The ap this resource consent; ii) The document titled "Waikato District Council Ngaruawahia and Huntly Resource Consents Project, Resource Consents Application: Assessment of Effects on the Environn March 2009 and recorded on Waikato Regional Council's document system numbered 1458402; document titled "Waikato District Council Ngaruawahia and Huntly Wastewater Resource Conse Resource Consents Application: Response to RMA Section 92(1) Requests for Further Information" d 2009 and recorded on Waikato Regional Council's document system numbered 1531323; subject to the below which shall prevail should any inconsistency occur between the conditions and the above docur	Wastewater nent" dated and iii) The ents Project, lated August le conditions
Evidence		
Status Reasoning		
Action Required	Full	Compliance
2	The consent holder shall ensure contractors are made aware of the conditions of this resource consent compliance with those conditions.	t and ensure
Evidence		

Status Reasoning		
Action Required		Full Compliance
4	At the beginning of each programme of sludge removal from the oxidation pond or holding p holder shall inform the Waikato Regional Council in writing, at least 10 working days prior to co each event, of the start date of the works authorised by this resource consent.	
Evidence	No sludge disposal operations have been undertaken during this compliance period	
Status Reasoning		
Action Required		Not assessed
	Authorisation Compliance:	Full Compliance

AUTH119645.01.01 - Bed - structure

Activity Authorised: Use, upgrade and maintain an outflow pipeline structure including an outflow diffuser on the bed of the Waikato River for the discharge of treated wastewater from the Ngaruawahia WWTP

Condition No.	Description	
1	The outfall structure shall be maintained and operated in general accordance with: i) The appresource consent; ii) The document titled "Waikato District Council Ngaruawahia and Huntly Wass Consents Project, Resource Consents Application: Assessment of Effects on the Environment" dand recorded on Waikato Regional Council's document system numbered 1458402; and iii) The "Waikato District Council Ngaruawahia and Huntly Wastewater Resource Consents Project, Replication: Response to RMA Section 92(1) Requests for Further Information" dated August 20 on Waikato Regional Council's document system numbered 1531323; subject to the conditions b prevail should any inconsistency occur between the conditions and the above documents.	tewater Resource ated March 2009 document titled esource Consents 009 and recorded
Evidence		
Status Reasoning		
Action Required		Full Compliance
2	The consent holder shall ensure contractors are made aware of the conditions of this resource co compliance with those conditions.	nsent and ensure
Evidence		
Status Reasoning		
Action Required		Full Compliance
4	The discharge of treated wastewater to the Waikato River shall be via a multi-port diffuser locate the Waikato River.	ted on the bed of
Evidence		
Status Reasoning		-
Action Required		Full Compliance
5	Ports 2, 4, 6 and 8 of the diffuser, as numbered from the true right bank of the Waikato River, sh unless specifically permitted in writing by the Waikato Regional Council.	all remain closed

Evidence	see dive survey from March 2021 (doc ref 20203770)	
	5 diffusers were found, and the following observations made: Diffuser 1: 150mm clearance above observed. Diffuser 2: 150mm clearance above riverbed; no flow observed. Diffuser 3: Just clear observed. Diffuser 4: 150mm clear of riverbed; flow observed. Diffuser 5: Just clear of riverbed; no No damage or debris was found, and the warning sign was clearly visible from the river	of riverbed; flow
Status Reasoning	Unable to assess compliance as the dive survey failed to account for all the ports and did not reference the o that were found as to their location from the bank etc.	
	only 3 ports were found to be flowing of the 5 located.	
Action Required	Please ensure dive company provides the relevant information as per the consent condition requirements	Low Risk Non- Compliance
6	The consent holder shall maintain the outfall diffuser in an operational state such that the discha 3, 5, 7 and 9 is uniform along the operational length of the diffuser and providing effective of wastewater in the river flow.	
Evidence	No damage or debris was found. The screen was cleaned and photos captured. What appears to over a small hole in the pipeline was found partially detached. No warning sign was found	
	Only 3 ports were found to be flowing of the 5 located. Please ensure that 4 ports are operationa	
Status Reasoning	25% of the required discharge ports are not visibly functioning, thus reducing the level of diffus warning sign visible. a patched hole was losing its protective covering.	ion required. No
Action Required	Ensure that 4 ports of the diffuser are operational as a minimum, install a warning sign on the bank that is visible to river users.	Full Compliance
7	The consent holder shall undertake a survey of the diffuser at six monthly intervals to demonstrate compliance with conditions 5 and 6 of this consent. The frequency of the surveys may be reduced to no less than every two years following written request to and approval from the Waikato Regional Council. The results of each survey and any recommendation as to the frequency of future surveys shall be provided to the Waikato Regional Council within 30 days of the survey.	
Evidence	this has been reduced to annually by mutual agreement	
Status Reasoning		
Action Required		Full Compliance
8	The consent holder shall notify the Waikato Regional Council in writing at least five workin commencement of survey works.	ng days prior to
Evidence		
Status Reasoning		
Action Required		Not assessed
9	The consent holder shall be responsible for the structural integrity and maintenance of the outf for the provision and maintenance of any erosion control works that become necessary to presen integrity of the outfall, and/or to control erosion as a result of exercise of this consent. Any such the satisfaction of the Waikato Regional Council. Note: A separate resource consent may be requir the need to undertake erosion control works. Any such consent shall be obtained by the conser sole expense prior to any works being undertaken.	ve the structural works shall be to red as a result of
Evidence		
Status Reasoning		

Action Required		Not assessed
10	Any and all earthmoving machinery, pumps and generators associated with use and maintenance in a manner which ensures that spillages of fuel, oil and similar contaminants are prevented, p refueling and machinery servicing and maintenance. Refueling and lubrication activities shall be from any surface water such that any spillage can be contained and does not enter any surface ground.	particularly during carried out away
Evidence		
Status Reasoning		
Action		Not assessed
Required		
Required	The consent holder shall maintain the structure so that no part of the structure is lost (e.g. br water) or results in a navigational hazard. Any material that is lost from the structure shall be imm by the consent holder. Should the material lost be a hazard to navigation the Waikato Regiona informed immediately.	nediately retrieved
•	water) or results in a navigational hazard. Any material that is lost from the structure shall be imm by the consent holder. Should the material lost be a hazard to navigation the Waikato Regiona	nediately retrieved
11	water) or results in a navigational hazard. Any material that is lost from the structure shall be imm by the consent holder. Should the material lost be a hazard to navigation the Waikato Regiona	nediately retrieved
11 Evidence Status	water) or results in a navigational hazard. Any material that is lost from the structure shall be imm by the consent holder. Should the material lost be a hazard to navigation the Waikato Regiona	nediately retrieved

AUTH119646.01.01 - Water - sewage

Activity Authorised: Discharge treated wastewater (via seepage) to land and groundwater from activities associated with the Ngaruawahia WWTP

Condition No.	Description	
1	The discharge shall be undertaken in general accordance with: i) The application for this resource consent; ii) The document titled "Waikato District Council Ngaruawahia and Huntly Wastewater Resource Consents Project, Resource Consents Application: Assessment of Effects on the Environment" dated March 2009 and recorded on Waikato Regional Council's document system numbered 1458402; and iii) The document titled "Waikato District Council Ngaruawahia and Huntly Wastewater Resource Consents Application: Response to RMA Section 92(1) Requests for Further Information" dated August 2009 and recorded on Waikato Regional Council's document system numbered 1531323; subject to the conditions below, which shall prevail should any inconsistency occur between the conditions and the above documents.	
Evidence		
Status Reasoning		
Action Required		Full Compliance
4	The consent holder shall manage and maintain the integrity of all ponds, wetlands, rock filters and that form any part of the wastewater treatment process so as to minimise the volume of se structures so far as practicable.	
Evidence		
Status Reasoning		
Action Required		Full Compliance
	Authorisation Compliance:	Full Compliance

AUTH124828.01.01 - Land - solid waste

Activity Au	horised: To discharge biosolids to land	
Condition No.	Description	
1	The discharge of sewage sludge to land shall be undertaken in general accordance with: i) resource consent; ii) The document titled "Ngaruawahia Biosolids Disposal Consenting Pro Application: Assessment of Effects on the Environment" dated June 2012 and recorder Council's document system numbered 2209397 and iii) The document titled "Section 9 consent application for the disposal of biosolids to land", dated 25 June 2012 and recorder Council's document system numbered 2211843; iv) Technical Note dated 26 Septembe consultant Garret Hall of MWH following meeting to discuss issues relating to biosolids disp on Waikato Regional Council's document system numbered 2271841	oject, Resource Consen d on Waikato Regiona 22 request for resource ed on Waikato Regiona r 2012 from applicants
Evidence	No sludge discharge has occurred during this compliance period	
Status		
Reasoning		
Reasoning Action Required		Full Compliance

4 SUMMARY OF COMPLIANCE

Based on the conditions selected for monitoring, compliance has been assessed as:

Authorisation	Authorisation Description	Compliance Status
AUTH119642.01.02	Discharge up to 11,200 cubic metres per day of treated wastewater from the Ngaruawahia WWTP into the Waikato River	
AUTH119643.01.01	Discharge contaminants to air from activities associated with the Ngaruawahia WWTP	Low Risk Non-Compliance
AUTH119644.01.01	Discharge treated municipal wastewater sludge onto land during pond de-sludging from activities associated with the Ngaruawahia WWTP	
AUTH119645.01.01	Use, upgrade and maintain an outflow pipeline structure including an outflow diffuser on the bed of the Waikato River for the discharge of treated wastewater from the Ngaruawahia WWTP	
AUTH119646.01.01	Discharge treated wastewater (via seepage) to land and groundwater from activities associated with the Ngaruawahia WWTP	
AUTH124828.01.01	To discharge biosolids to land	Not assessed

Overall Site Compliance:

Moderate Non-Compliance

5 DISCUSSION AND CONCLUSIONS

The performance of the Ngaruawahia WWTP has been deteriorating over time and this has probably been due to the build up of sludge within the main pond and issues in operating the actiflo system. The site is currently having the pond desludged and some improvement is expected after that process has been completed. Unfortunately, the performance of the treatment system has triggered the consent limits that require an upgrade solution. The determinants in question are ammoniacal nitrogen and total nitrogen. The consent holders annual report states:

"The exceedances were sufficient to meet the TN and ammoniacal nitrogen Trigger Levels detailed in Condition 10 and Condition 11 of the Resource Consent. The outcome of meeting the Trigger Levels is that the consent holder must endeavour to carry out upgrades that will bring the measurements of interest (TN and ammoniacal nitrogen) down to 80% of the compliance values. Pond desludging has been scheduled to satisfy this requirement (Q4 2021)."

Condition 11 of the consent states:

The consent holder is required to design, build and commission the appropriate upgrade to the treatment process within two years after the "trigger" level is reached. the trigger level was reached by 30 June 2021. therefore, the date for the upgrade to be commissioned by 1 July 2023.

Therefore, we should expect to see full compliance achieved for these two determinants by July 2023.

The Operations and Maintenance manual was last reviewed and updated in 2014, and a review is well over due to ensure the O&M manual matches the actual processes and equipment currently on site.

The dive survey undertaken annually needs to ensure that the information required for assessment in the conditions is adequately reported on in the survey report. The diffuser ports need to be identified and a reference given as to which end of the diffuser the comments and photos are taken from.

6 SUMMARY OF ACTIONS REQUIRED

Resource consent	Condition	Action Required
AUTH119642.01.02	10	The consent holder shall design, build and commission the appropriate upgrade to the treatment process within two years after the "trigger" level is reached which was 30 June 2021. That date for an upgrade is 1 July 2023 and a plan for the upgrade to the plant should be submitted to WRC as soon as possible.
AUTH119642.01.02	11	The consent holder is required to design, build and commission the appropriate upgrade to the treatment process within two years after the

		"trigger" level is reached. the trigger level was reached by 30 June 2021. therefore the date for the upgrade to be commissioned by 1 July 2023.
AUTH119642.01.02	20	Please review and update the O&M plan to ensure the plan is relevant and matches the current site layout and processes that exist on site. Don't forget to update the contact details.
AUTH119642.01.02	24	Please ensure that WDC/WSL places and maintains a sign in the vicinity of the discharge to the Waikato River, in such a way that it is conspicuous to river users, advertising of the presence of the wastewater discharge and warning against the use of the location for swimming
AUTH119642.01.02	36	Report due by 31 March 2022
AUTH119643.01.01	6	Please review the O&M plan and ensure that requirements in the conditions are covered in the plan.
AUTH119645.01.01	5	Please ensure dive company provides the relevant information as per the consent condition requirements
AUTH119645.01.01	6	Ensure that 4 ports of the diffuser are operational as a minimum, install a warning sign on the bank that is visible to river users.

The following actions are required to be undertaken:

7 RECOMMENDATIONS FOR WAIKATO REGIONAL COUNCIL

I recommend the following actions for Ngaruawahia WWTP for the period 1 July 2020 to 30 June 2021:

- Issue a Formal Warning for the non-compliances attained during the compliance period.
- Issue a Letter of Direction requiring a response as to how they intend to improve compliance following the trigger limits being reached.
- The site to remain as a Focus Area 1 site due to the previous non-compliances and be audited again for the 2021-22 compliance period.

Edward Prince

Edward Prince Senior Resource Officer - Infrastructure Resource Use

Date: 26 January 2022

7.1 Decision

I have reviewed this audit report and agree with the recommendations.

allen

Hugh Keane Team Leader - Infrastructure Resource Use

Date: 26 January 2022

APPENDIX 1 Compliance Rating System			
Compliance Status	s Compliance Grade		
	Not Assessed		
	Full Compliance Full compliance with all relevant consent conditions, plan rules, regulations and national environmental standards.		
	Low Risk Non-Compliance Non-compliance with some of the relevant consent conditions, plan rules, regulations and national environmental standards. Non-compliance carries a low risk of adverse environmental effects or is technical in nature (e.g. failure to submit a monitoring report).		
	Moderate Non-Compliance Non-compliance with most of the relevant consent conditions, plan rules, regulations and national environmental standards, where there are some environmental consequences and/or there is a moderate risk of adverse environmental effects.		
	Significant Non-Compliance Non-compliance with many of the relevant consent conditions, plan rules, regulations and national environmental standards, where there are significant environmental consequences and/or a high risk of adverse environmental effects.		