BEFORE NORTHLAND REGIONAL COUNCIL

UNDER	the Resource Management Act 1991
A N D	
IN THE MATTER	of applications to renew the resource consents associated with the operation of the wastewater treatment plants at Opononi-Ōmāpere, and Kohukohu
BETWEEN	**FAR NORTH DISTRICT COUNCIL**
	Applicant
	NORTHLAND REGIONAL COUNCIL
	Consent Authority

EVIDENCE OF MARTELL LETICA

(PLANNING)

MAY 2023

Counsel instructed:
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1. INTRODUCTION

1.1. My full name is Martell Letica. I am the Managing Director of Letica Environmental Planning Limited, a company I formed in 2021 where I have continued practising as a Principal Planner to date.

1.2. I was engaged by the Far North District Council in a secondment role firstly within its Infrastructure and Asset Management Planning Team (**IAMP**) from 2021 to 2022 and then in its Far North Waters Alliance Infrastructure Planning Team (**FNWP**) February 2023 till now.

1.3. This evidence focuses on the planning matters arising from the resource consent applications lodged by Far North District Council (the Applicant) which seek, in summary, to replace expiring consents for;

a. The discharge of treated wastewater into the coastal marine area of the Hokianga Harbour.

b. To discharge treated wastewater to land (seepage) from the base of a wastewater treatment system.

c. To discharge contaminants (primarily odour) to air from the operation of the wastewater treatment system.

2. QUALIFICATIONS AND EXPERIENCE

2.1. I am the Managing Director of Letica Environmental Planning Limited. I hold the qualifications of Bachelor of Sciences (Geography) and a Bachelor of Arts (Political Studies) from the University of Otago (2007).

2.2. I have 16 years professional experience in planning and resource management from local government and consultancy positions in Otago, Southland, South Canterbury and now Northland. My previous employment and associated positions include:

a. Principal Planner at Williamson Water & Land Advisory Limited (2019-2021);

b. Work Group Manager (Planning and Rural Services) - WSP Limited (2018-2019);

c. Opus International Consultants Limited (2017-2018) – Team Leader;

d. Senior Planner/Consents Officer - Landpro Limited (2014-2017), Hawkes Bay Regional Council (2010-2014), and Otago Regional Council (2007-2010).

3. CODE OF CONDUCT

3.1. While the Application is not before the Environment Court, I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note (2022).

3.2. I confirm that the evidence I present is within my area of expertise and I am not aware of any material facts which might alter or detract from the opinions I express. The opinions expressed in this evidence are based on my qualifications and experience and are within my area of expertise. If I rely on the evidence or opinions of another, my evidence will acknowledge that position.

4. INVOLVEMENT IN APPLICATIONS

4.1. Senior Infrastructure Planner, Jessica Crawford, prepared the applications for resource consents associated with the Opononi-Ōmāpere Wastewater Treatment Plant (**OPO-WWTP**) which were lodged with the Northland Regional Council (**NRC**) in May 2019.

4.2. The Kohukohu Wastewater Treatment Plant (**KOH-WWTP**) applications for resource consents were prepared by Opus International Consultants Limited (now WSP New Zealand Limited) and lodged with NRC in May 2016.

4.3. I took over the management of both applications when Ms Crawford left the Far North District Council (**FNDC**) in July 2022 in my capacity as a Consultant Infrastructure Planner in the IAMP team.

4.4. I do not consider my involvement in these applications to be as substantial as it would normally[1] be. However, since taking over the management of both applications, I have;

[1] Early-stage involvement in resource consent application preparation, consultation, and alternatives assessment as a minimum.

a. prepared planning related material in relation to the KOH-WWTP which was the response to the request for further information made by NRC pursuant to Section 92(1) of the RMA. This was submitted to NRC in August 2022;

b. attended one online meeting with members of Te Mauri o te Wai on Monday 8 August 2022 to update it on the progress with the preparation of a Cultural Impact Assessment (**CIA**) by the person mandated by Te Ihutai hapū; and

c. Assisted the Team Leader with their enquiries to the mandated writer of the CIA being prepared on behalf of Te Ihutai hapū.

5. SCOPE OF EVIDENCE

5.1. In my evidence I will:

a. Summarise the details of the resource consent activities;

b. Address the actual and potential effects of the resource consent activities on the environment;

c. Assess the proposal against the relevant provisions of a document referred to in Section 104(1)(b) of the Resource Management Act 1991 (**RMA**);

d. Address the submissions of relevance to my area of expertise;

e. Address the Northland Regional Council Officer's Section 42A Recommending Reports (**OPO-s42A, and KOH-s42A**); and

f. Outline the requested changes to the proposed conditions of consent.

5.2. In preparing my evidence, I have read the following relevant documentation;

a. Assessment of Effects on the Environment titled, '*Opononi WWTP, Application to renew resource consent for the Opononi Wastewater Treatment Plant*', prepared by the Applicant, dated 17 May 2019 (**OPO-AEE**);

b. Assessment of Effects on the Environment titled, '*Resource Consent Application Kohukohu Waste Water Treatment Plant*', prepared by Opus International Consultants Ltd, dated 10 May 2016 (**KOH-AEE**).

c. *'Kohukohu Wastewater Treatment Plan*[sic]*: Resource Consent Renewal, Cultural Impact Assessment*', compiled by Sanson & Associates Limited on behalf of Te Ihutai hapū, dated March 2023 (**KOH-CIA**);

d. *Cultural Impact Assessment of the Opononi Omapere Wastewater Discharge to the Hokianga Harbour,* prepared by Te Arani Te Haara of ART Consultancy Ltd with the assistance and contribution of Kaumatua/Kuia, Treaty Claimants, Nga Hapū/Iwi, Takiwa, Community Groups, and local Kura, dated June 2020 (**OPO-CIA**).

e. *Kohukohu WWTP Upgrade, Kohukohu WWTP Issues and Options*. Report prepared by Jacobs New Zealand Ltd (Jacobs) for the Applicant, dated 15 October 2020 (**Jacobs-KOH**)[2];

f. *Far North District Council, Opononi Omapere Wastewater Treatment System – Alternative Disposal Options*. Report prepared by VK Consulting Environmental Engineers Ltd for the Applicant, dated March 2011 (**VK-Report**);

g. *Opononi/Omapere Wastewater Treatment System, Treatment Upgrade and Land Disposal Options*. Report prepared by Mott Macdonald Limited for the Applicant, dated December 2014 (**MM-Report**);

h. *Opononi/Omapere WWTP Upgrade, Opononi WWTP Issues and Options*. Report prepared by Jacobs for the Applicant, dated 15 October 2020 (**Jacobs-OPO**)[3].

i. OPO-s42A;

j. KOH-s42A;

k. All submissions received;

l. Marine and Coastal Area (Takutai Moana) Act 2011 (**MACA**);

m. New Zealand Coastal Policy Statement 2010 (**NZCPS**);

[2] Sourced from Appendix B of the Applicants response to a request for further information dated 3 August 2022

[3] Sourced from Appendix 4 of the Applicants response to a request for further information dated 27 November 2020.

n. National Policy Statement for Freshwater Management 2020 (amended in February 2023) (**NPSFM-2020**);

o. Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (**NESDW**);

p. Resource Management (National Environmental Standards for Freshwater Management) Regulations 2020 (**NESFM**);

q. Regional Policy Statement for Northland 2016 (Updated May 2018) (**RPS**);

r. Proposed Regional Plan for Northland 2017 (Decisions Version – 4 May 2019) (**PRPN-2019**);

s. Proposed Regional Plan for Northland 2017 (Appeals Version – December 2022) (**PRPN-2022**);

t. Regional Water and Soil Plan for Northland 2004 (Updated 2016) (**RWSP**);

u. Regional Coastal Plan for Northland 2004 (Updated 2016) (**RCPN**); and

v. Regional Air Quality Plan for Northland 2003 (Updated 2018) (**RAQP**).

6. THE APPLICATIONS

6.1. While the OPO-WWTP and KOH-WWTP are separate applications for resource consents, there is a commonality of receiving environment (Hokianga Harbour) between them as a primary consideration. For this reason, I have chosen to address both in the same brief of evidence however provide sectioning to distinguish analysis against the WWTP discharge activities where separation is warranted.

Exercise of Expired Resource Consents

6.2. Both KOH-WWTP and OPO-WWTP applications for resource consents sought to replace existing resource consents which were due to expire. Both applications were lodged more than three months prior to their expiries and NRC, in its discretion, allowed the Applicant to continue to operate the wastewater treatment

plants under their existing consents until a decision and all appeals are determined[4].

Applicable Plan Resource Consent Requirements

6.3. The applications for resource consent for the OPO-WWTP were lodged on 17 May 2019; the timing of which coincided with the release of the decision on the PRPN on 4 May 2019. Although the PRPN-2019 was the relevant plan at the time the applications were lodged, the AEE-OPO references the rule of the notified PRPN (dated September 2017) for discharges of treated wastewater to water or to land.

6.4. The OPO-s42A has assessed the activities under the relevant rules of the PRPN-2022 except for the occupation and use of the seabed of the Hokianga Harbour as the relevant rule is not yet operative. I agree with the described consent types, activity descriptions and classifications presented in the OPO-s42A (page 5) with one exception discussed as follows.

6.5. The OPO-s42A[5] (at page 5) assesses the discharge of contaminants (odour) to air as a restricted discretionary activity in accordance with Rule C.7.2.13 PRPN-2022. While I accept that it is not abundantly clear whether Rule C.6.2.2 PRPN-2022 covers the discharge of odour from all odour-generating facilities onsite, I consider that Rule C.6.2.2 PRPN-2022 suitably accommodates the discharge of odour to air as, while the wastewater is contained within the ponds and wetland, it is a continuous discharge of wastewater to land (seepage) and therefore has a sufficient 'linkage' to claim the associated discharge of odour to air provided in Rule C.6.2.2 PRPN-2022. It is also reasonable to assume that this 'bundling' of associated activities was anticipated in drafting this rule given the approach by NRC to bundle associated activities the one rule where applicable in the PRPN.

6.6. For clarity, Table 1 below contains summary details of the relevant rules and activity classification for the described activity as I consider them to be.

Table 1: Resource consent requirements for OPO-WWTP.

Resource Consent	Rule / Plan	Description	Classification
Coastal Permit	C.6.2.2 PRPN-2022	The discharge of treated wastewater from a wastewater treatment plant into the Hokianga Harbour.	Discretionary

[4] As per Section 124(2) and (3) RMA.
[5] And the AEE-OPO (at page 8-9), although the rule reference in this document is given as C.7.2.6C which does not have a relevant correlation with the air discharge activity proposed.

Discharge Permit	C.6.2.2 PRPN-2022	The discharge of treated wastewater from a wastewater treatment plant onto or into land in a manner which may enter water through seepage from the base of the ponds, and any associated discharge of odour into air resulting from the discharge.	Discretionary
Coastal Permit	31.4.4(c) RCP C.1.1.1 PRPN-2022	To occupy and use the seabed of the Hokianga Harbour for an existing wastewater discharge pipeline structure.	Discretionary (RCP) Permitted (PRPN-2022)

6.7. The applications for resource consent for the KOH-WWTP were lodged on 10 May 2016. The AEE-KOH therefore contains conclusions with regard to relevant rules of the RWSP, RAP, and RCP[6] only.

6.8. Since the resource consent applications were lodged, the PRPN has been made operative in part. As the rules relevant to the proposal are not subject to appeal, the RWSP, RAP, and RCP for all intents and purposes have been replaced, leaving the PRPN-2022 to be applied instead[7]. This is consistent with Section 86F RMA which provides that a rule in a proposed plan must be treated as operative, and any previous rule as inoperative, where in this case, any appeals in opposition have been determined.

6.9. Similar to my commentary above, I disagree with the KOH-s42A conclusions that a permit to discharge odour to air is required under Rule C.7.2.13 PRPN-2022 and opine instead that Rule C.6.2.2 PRP-2022 accommodates the discharge of odour to air.

6.10. In order to clarify my position on the relevant rules for the KOH-WWTP proposal, I have produced Table 2 below which generally follows the KOH-s42A conclusions[8] with the exception of Rule C.7.2.13 PRPN-2022 as discussed above.

Table 2: Resource consent requirements for KOH-WWTP.

Resource Consent	Rule / Plan	Description	Classification
Coastal Permit	C.6.2.2 PRPN-2022	The discharge of treated wastewater from a wastewater treatment plant into waters of the Hokianga Harbour.	Discretionary
Discharge Permit	C.6.2.2 PRPN-2022	The discharge of treated wastewater from a wastewater treatment plant onto or into land in a manner which may enter water through seepage from the base of the ponds, and any associated	Discretionary

[6] Contained in Table 1, page 1 of the AEE-KOH.
[7] See *Pierau v Auckland Council* [2017] NZEnvC 090.
[8] Page 62 of s. 42A.

		discharge of odour into air resulting from the discharge.	

Description of Activities

Opononi-Ōmāpere Wastewater Plant

6.11. The Opononi and Ōmāpere urban areas are serviced by the OPO-WWTP which is situated on land legally described as Part Taumatawiwi Survey Office Plan 405122 (aeration and detention ponds), Section 1 Survey Office 405122 (clean water tank), Part Riverbed (part-of constructed wetland over the bed of the Waiarohia Stream), and Lot 1 Deposited Plan (**DP**) 167208 (majority of constructed wetlands). Imagery from Quickmap (accessed April 2023) is contained in Appendix A to this evidence to assist with the spatial identification of these properties.

6.12. The AEE-OPO and OPO-s42A contain the legal description 'Lot 1 DP 110735' for the aeration and detention ponds which was the correct legal description as at the date of the Environment Court decision (18 November 2009). However, aside from Lot 1 DP 167208, all parcels (and associated easements) were acquired under the Public Works Act 1981 (**PWA**) for sanitary works (sewage treatment site) by agreement and gazetted as per the PWA in 2012. Appendix B contains the relevant gazette notice.

6.13. Regarding the in-situ details of the OPO-WWTP, Ms Parlane has provided suitable detail of this aspect of the proposal in her evidence at Paragraphs 19-21 including the serviced area and the facilities present at the treatment plant site. The s 42A Report is also consistent with Ms Parlanes description. I have no further detail or information to add and rely on Ms Parlanes evidence where I discuss matters, including cross-referencing the areas of her evidence that I have relied on.

<u>Consent Compliance</u>

6.14. Condition 19 of the current resource consent contains a series of trigger value concentrations for 5 day Biological Oxygen Demand (BOD), Escherichia Coli (E.coli), Total ammoniacal nitrogen (ammoniacal nitrogen) and Total suspended solids (TSS) in the wastewater as measured at LOC.101580, at the outlet of the Constructed Wetlands (CWL). If the trigger values are exceeded the Consent

Holder is required the report to the NRC on the reasons for the exceedance, the actions to correct the exceedance and prevent it from re-occurring.

6.15. The OPO-WWTP has not been complying with the trigger values for E.coli, ammonia, biological oxygen demand (BOD) and total suspended solids (TSS). Maintenance actions to correct the exceedances have been initiated but have not had permanent success with exceedances reoccurring or continuing under certain conditions.

Kohukohu Wastewater Treatment Plant

6.16. The KOH-WWTP services households through common effluent drainage servicing (EDS). This system consists of a 5,089 metre long reticulated network connected to onsite wastewater tanks. According to the asset register, most of the system was installed in 1986.

6.17. Effluent from the onsite tanks is conveyed via gravity to a rising main line with three main pump stations to a single facultative (oxidation) pond followed by a surface flow wetland before discharging via a drain to the Hokianga Harbour. I refer the Commissioners to summary information of connections and reticulation in Ms Parlane's evidence at Paragraphs 30-32.

6.18. The KOH-WWTP is located on the northern side of the Hokianga Harbour on reclaimed land legally described as Part Section 86 Block X Mangamuka Survey District.

6.19. I refer Commissioners to Ms Parlane's evidence and the KOH-s42A report where descriptions of the in-situ features of the KOH-WWTP are described, both of which are consistent with the AEE-KOH. I have no further detail or information to add to their descriptions and have relied on this material to perform evaluative analysis in the following sections.

<u>Consent Compliance</u>

6.20. Under the conditions of the existing resource consent, effluent samples are taken every three months. Compliance against the resource consent faecal coliform and ammoniacal nitrogen median standards is measured using rolling 5-sample median values. There are no consent limits on BOD or total suspended solids.

6.21. My observation of the data in the KOH-AEE is that effluent quality before mixing indicates that between 2003 to 2016, the faecal coliform limit of 15,000 cfu/100 mL was exceeded (number of exceedances not reported) while Jacobs-KOH also identified exceedances of this limit on six occasions since January 2010. The limit of 40 mg/L of ammoniacal nitrogen was not exceeded according to the KOH-AEE, however the latter analysis by Jacobs did identify a cluster of high ammonia values in 2018. However, performance against the limit was retained after desludging of the pond.

6.22. Overall, analysis of monitoring between 2016-2019 indicates that from a technical perspective there are no significant issues of concern with the effluent quality, reflecting the pre-treatment provided by the septic tanks and the capacity of the KOH-WWTP to cater for existing loads (Jacobs- KOH, page 15).

7. RECEIVING ENVIRONMENT FOR THE PURPOSES OF ASSESSING EFFECTS

7.1. The receiving environments for the WWTPs have been sufficiently described in their respective AEEs as well as Sections 3 of each of the s42A reports. As such, I do not provide a detailed description here but offer summary assurances of my agreement with the aforementioned material.

7.2. The surrounding land to the OPO-WWTP is zoned in the Far North District Plan 2009 as Rural Production. The KOH-WWTP is bounded by land zoned Recreational Activities to the north and General Coastal to the west. No changes have been notified to these zonings in the Proposed Far North District Plan 2022.

7.3. The receiving environment for the discharge to air is described in the OPO-AEE as being of low sensitivity as it is predominantly a rural air catchment with an approximate 160 m separation distance between the boundary of the WWTP at the detention pond and the nearest dwelling and that this dwelling is elevated approximately 30 metres above the OPO-WWTP.

7.4. The receiving environment for the discharge to air for the KOH-WWTP is described as 'low density residential and agricultural'[9]. The nearest habitable building to the WWTP is a Tauteihihi Marae which is located between 250 m and 350 m to the

[9] KOH-AEE, page 12.

northwest. There is also a sporting field located immediately to the north of the WWTP.

7.5. Dispersion modelling by Dr. Beamsley and the team at MetOcean identifies the likely extent of the wastewater discharge plume, at varying levels of dilution, within the area of coastal water identified in both the s42A and OPO-AEE. The plume occurs within the area of the Hokianga Harbour as having High Natural Character with largely indigenous cover and infauna, little commercial fishing and few obvious human structures within the Harbour (apart from navigation marks).

7.6. Dr. Dada has described background recreational water quality conditions in his contributing work to the OPO-AEE and confirms this prior work through his evidence.

7.7. The OPO-CIA and KOH-CIA describe the relationship of mana whenua and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga. The Hokianga harbour, whenua, awa and maunga have prominent significance in te ao Māori.

8. SUMMARY OF ACTUAL AND POTENTIAL EFFECTS ON THE ENVIRONMENT

8.1. Both the KOH-WWTP and OPO-WWTP, including responses to requests for further information, contain detailed assessments of the actual and potential environmental effects of the proposed WWTP discharges. Additionally, the policies and objectives of the PRPN-2022 are much like performance standards and provide a very helpful 'outcomes-focused' template for assessing and benchmarking the effects of activities. For these reasons, I have kept this part of my evidence purposefully short and instead refer Commissioners to Appendix C of my evidence alongside the aforementioned documentation (i.e., AEEs) to inform the considerations they must make under Section 104(1)(a) RMA.

Positive effects

8.2. Both the OPO-WWTP and KOH-WWTP provide important and significant contributions to the social and economic wellbeing of the Opononi, Ōmāpere, and Kohukohu communities.

8.3. At the time that the original application was made for the OPO-WWTP, significant health and environmental risks were posed by failing on-site sewage systems; a WWTP presented an opportunity to manage and control these risks. The KOH-WWTP was also borne out of concerns with individual septic tank disposal and the growth of the town's population and service offerings from the late 80's.

8.4. The wastewater schemes have allowed for the growth of urban development within the communities including commercial and tourism activity which would have been constrained by lot size allowances[10] if a connection to a reticulated sewage network were not available.

Discharge to air

8.5. The receiving air environment at the OPO-WWTP does not have sensitive receptors within close proximity to the plant.

8.6. The magnitude of dilution of the treated wastewater once discharged to the Hokianga would significantly reduce potential odour effects at the surface and there is a marker buoy indicating the presence of a wastewater discharge in the area.

8.7. In their submission, Craig and Kirsty Joiner state that they have often chosen not to swim or forage on the harbour foreshore due to the effluent smell at the beach near the discharge outlet.

8.8. The recommended conditions of consent in relation to the management of discharges to air from the plant and discharge are considered suitable for the sensitivities of the receiving environments.

Discharge to freshwater

8.9. Based on the evidence of Ms Parlane and the assessments contained in both AEE, there is low likelihood of contamination of freshwater from the effluent contained in the land-based treatment facilities. However, given the values of the Waiarohia Stream and the land use activities surrounding it, ongoing stream monitoring is proposed to be retained for the entirety of the recommended consent duration.

[10] To accommodate onsite wastewater treatment and disposal.

8.10. Therefore, subject to the amended conditions, adverse effects on freshwater will be less than minor.

Discharge to coastal water

8.11. Based on the relevant expert evidence, I understand that the wastewater discharges to coastal water will have the following adverse environmental effects:

a. Regarding paragraph 62 of the OPO-s42A, OPO-Jacobs assessed known pollutant concentrations of faecal coliforms, ammoniacal nitrogen, and total suspended solids for the monitoring period 2016-201911 at median and 95th percentile values. OPO-Jacobs concluded that the determinant limits stated in Policy H.3 PRPN-2022 will be met after allowing for reasonable mixing. As such, nutrient enrichment and ammonia eco-toxicity is unlikely given the significant factor of dilution of the Hokianga harbour with adverse effects therefore considered less than minor;

b. Neither the Applicant nor NRC have any records of complaints about the colour and visual clarity of the discharge for either WWTPs. The Applicant had however received feedback from members of the community that there may be an obvious plume from the OPO-WWTP pipe from time-to-time. However, there is no consistent or on-going exceedance of discharge quality parameters, such as total suspended solids, which would warrant linking the discharge to a visible plume effect. The OPO-AEE suggests that a plume may be the result of the discharge disturbing the seafloor or the mixing of sea water with wastewater that causes a discolouration. If there is a visible plume, this would be at most a minor transitory adverse effect on natural character and visual amenity.

c. The QMRA approach has been conservative (see evidence of Dr. Dada) with results indicating that wastewater treatment that reduces virus concentrations in the WWTP discharge by 2-log (i.e. 100-fold) will reduce health risks associated with the discharge (in relation to inhalation, ingestion during swimming and consumption of shellfish harvested) at all exposure sites, to levels below the ‘No observable

[11] see Table 5-2 of OPO Jacobs Report, page 24.

adverse effects level' (NOAEL). Faecal Indicator Bacteria (FIB) concentrations of the receiving environment water samples compared to available MfE/MoH guidelines showed a high level of compliance with the relevant guidelines and he confirms his agreement with recommended conditions of consent for both WWTPs in relation to FIB. With the predicted low risk of illness attributable to the WWTP discharges, adverse effects on coastal and marine recreation are less than minor but potentially minor within the zone of reasonable mixing for KOH-WWTP.

d. The CIA identify the potential for significant adverse effects on the values of significance to tangata whenua. These values include the mauri of the receiving water, access to mahinga kai and kaimoana and ngā hapū ability to exercise rangatiratanga and fulfil kaitiakitanga responsibilities. Recommendations were included in both CIA and some of these have been adopted in the proposed set of conditions attached (see Appendix D). However, the inclusion or exclusion of consent conditions does not bypass the assertion that, *"[T]he benchmark policy set by Hapu and Iwi is that discharge to a water body is unacceptable"* as stated in the OPO-WWTP CIA.

9. ASSESSMENT OF THE PROPOSALS AGAINST THE RELEVANT POLICY AND STATUTORY DOCUMENTS

National Environmental Standards

Resource Management (National Environmental Standards for Freshwater) 2020

9.1. The NES-FM contains Regulations for farming activities (Part 2) and for other activities which may affect freshwater (Part 3). Part 2 of the NES-FM as relates to farming is not relevant to the Proposal. Part 3 is separated into three sub-parts; sub-part 1 regulates activities affecting natural wetlands, sub-part 2 regulates reclamations of rivers, and sub-part 3 regulates structures which affect the passage of fish. Only sub-part 1 of Part 3 of the NES-FM is considered relevant to the activities and is assessed as follows.

9.2. The definition of a natural wetland was amended in the February 2023 amendment to the NPSFM 2020 and now excludes wetlands that are;

a. in the coastal marine area; or

b. a deliberately constructed wetland, other than a wetland constructed to offset impacts on, or to restore, an existing or former natural inland wetland; or (c) a wetland that has developed in or around a deliberately constructed water body, since the construction of the water body; or

c. a wetland constructed by artificial means (unless it was constructed to offset impacts on, or restore, an existing or former natural wetland).

9.3. There are no natural inland wetlands as defined in the NPSFM within 100 metres of the discharges.

Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007

9.4. The NES-DW commenced on 20 June 2008 and requires that a regional council must not grant a water or discharge permit for an activity that will occur upstream of a registered drinking water abstraction point if specific criteria at the point of abstraction are exceeded. The matters to be considered as part of an assessment are dependent on the permit being sought and the level of effects on any drinking water supplier located downstream or down gradient of the activity.

9.5. According to the Taumata Arowai Register of Drinking Water Supplies, there are no registered drinking water abstraction points downstream of either WWTPs while final discharge locations are to coastal water which is unsuitable for drinking.

Other Regulations

9.6. There are no other relevant regulations to this activity.

National Policy Statements

National Policy Statement for Urban Development Capacity 2020

9.7. I do not consider that the New Zealand Policy Statement for Urban Development Capacity 2020 applies to this proposal as neither the Opononi, Ōmāpere, nor

Kohukohu townships are or are intended to be part of a housing and labour market of at least 10,000 people.

National Policy Statement for Freshwater Management

9.8. The NPSFM directs local authorities on how they are to manage freshwater under the RMA through their planning documents. It also contains an objective and several policies that are relevant to considering applications for resource consents in an integrated manner. As both proposals include potential discharges to freshwater, the NPSFM is relevant.

9.9. It contains one Objective (at Clause 2.1) and 15 Policies (at Clause 2.2), which are preceded by an in-depth description of the fundamental concept of 'Te Mana o te Wai' that underpins freshwater management in New Zealand, including six principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater.

9.10. Te Mana o Te Wai is the fundamental concept of the NPSFM and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It is about restoring and preserving the balance between the water, the wider environment, and the community. The hierarchy of obligations outlined in Objective 1 of the NPSFM prioritises this fundamental concept as follows:

(a) first, the health and well-being of water bodies and freshwater ecosystems

(b) second, the health needs of people (such as drinking water)

(c) third, the ability of people and communities to provide for their social, economic, and cultural wellbeing, now and in the future

9.11. The 15 policies and implementation framework of the NPSFM 2020 which follow this Objective have now largely been given effect to within the PRPN, in particular, specific policies that direct decision-makers to prioritise the health and wellbeing of the water body through consent conditions for applications seeking to replace expiring discharge consents. As such, I agree with the NRC reporting officer that an indepth analysis against the NPSFM is unnecessary due to the more specific provisions contained in the PRPN that guides applicants and decision-makers to best give effect to Te Mana o Te Wai at a regional and local level. For the reasons as detailed in Appendix C to my evidence, and subject to the minor amendments to recommended conditions of consent, the proposals are not contrary to the

NPSFM 2020, and in particular is consistent with Policies 1, 2, 3, 5, 6, 9, 12, and 15.

New Zealand Coastal Policy Statement 2010

9.12. The New Zealand Coastal Policy Statement (NZCPS) took effect on 3 December 2010 and provides national direction for the management of coastal resources and the coastal environment in New Zealand. The purpose of the NZCPS is set out in Section 56 of the Act, which states:

> *The purpose of a New Zealand coastal policy statement is to state objectives and policies in order to achieve the purpose of this Act in relation to the coastal environment of New Zealand.*

9.13. I consider the NZCPS to be a relevant consideration to the applications as the activities take place and can have actual or potential adverse effects within the coastal environment. While the PRPN gives regional and local effect to most matters contained in the NZCPS it does not contain substantial policies relating to the values of open space, public access, and recreation that are unique to the coastal environment and its interface with land and freshwater resources. Given that the PRPN does not contain policies or objectives which relate to these unique characteristics of the coastal environment, I have provided analysis of the proposals against all provisions of the NZCPS that I consider to be relevant to the proposals. I note that that my analysis in Appendix C is largely consistent with the AEEs, particularly the OPO-AEE.

9.14. Overall, the proposals relate to the continued provision of affordable infrastructure that is important to the social and economic well-being of people and communities and provides for the reasonably foreseeable needs of population growth without compromising the other values of the coastal environment.

9.15. Overall, the proposal is considered to be consistent with the NZCPS.

Regional Policy Statement and Plans

9.16. The RPS promotes sustainable management of Northland's natural and physical resources through policies and methods to achieve integrated management of the region's resource management issues. The RPS describes itself as enabling. It balances improving the economy and using resources wisely with managing and

investing in the environment to achieve our future aspirations for improvement in Northland and our wellbeing. It is effects-based.

9.17. In September 2017, NRC notified the PRPN. The PRPN replaces three existing regional plans. In April 2019, NRC accepted and adopted the recommendations of an independent hearing panel of decisions on provisions and matters raised in submissions. Several provisions in the PRPN are the subject of appeals to the Environment Court, however, those matters which have been resolved are contained in the PRPN version released December 2022 (used in this assessment). The PRPN contains provisions which were developed to give effect to the policies of the RPS through the methods also contained in the RPS. As such, many of the policies and objectives of the two documents respond to the same resource management issues and form a cohesive regional approach to the sustainable management of Northlands natural and physical resources.

9.18. The RMA does not distinguish between weights to be given to an operative plan and a proposed plan. Case law has established that relevant factors in determining weight include the extent to which the proposed measure has been subject to independent decision-making, possible injustice to the applicant or others, and the extent to which a new measure, or absence of one, may implement a coherent pattern of objectives and policies in a plan.

9.19. I have only assessed the relevant provisions of the RPS and PRPN-2022 for the following reasons;

a. The provisions that remain under appeal are not fundamental to the consideration of these applications;

b. The PRPN-2022 gives effect to the RPS, in particular its methods. Therefore, regard to regional planning direction is best addressed under the two documents;

c. Turning to predecessor plans would not benefit this evaluative exercise and may in fact cause an incoherence of analysis of the key documents.

9.20. I have provided a detailed assessment and conclusions with regard to the relevant provisions of the RPS and PRPN-2022 in Appendix C to my evidence.

9.21. Aside from tangata whenua provisions, the proposals are consistent with the RPS and PRPN-2022.

10. SECTION 105

10.1. Section 105 of the RMA requires that, for any discharge permit or coastal permit to do something that would contravene section 15 of the RMA, the consent authority must have regard to the following matters:

a. the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and

b. the applicant's reasons for the proposed choice; and

c. any possible alternative methods of discharge, including discharge into any other receiving environment.

Nature of discharge

10.2. The nature of the proposed discharges (to air, fresh, and coastal waters) are set out in the applications and in technical evidence before the hearing (in particular that of Dr. Dada and Dr. Macdonald). The sensitivity of the receiving environments was described in the applications and in technical evidence and are summarised in my evidence.

Rationale

10.3. The reasons the discharge proposals have been selected are again set out in the applications. I note however in both instances the Applicant has adopted the recommended conditions of consent subject to refinements as set out in the amended conditions in Appendix D to my evidence.

Alternatives

10.4. Clause 6(d) of Schedule 4 RMA requires that an application contains a description of any possible alternative methods of discharge, including discharge into any other receiving environment and Section 105(1)(c) of the RMA follows that the consenting authority must give regard to such matters. Additionally, Policy D.4.3(b) of the PRPN-2022 and Policy 23(2)(b)(i) NZCPS contain similar instructions to consider discharging to land and any alternative methods, and sites for undertaking the discharge.

10.5. The analyses made under the provisions described above culminate fittingly into deciding whether to include a condition of consent requiring a consent holder to adopt the best practicable option (**BPO**) to prevent or minimise any actual or likely adverse effect on the environment of the discharge pursuant to Section 108(2)(e) RMA.

10.6. I was not involved in the analyses of alternatives, including options to discharge to land however the evidence of Ms Parlane and Dr. Macdonald contain full commentary of their involvement and conclusions in relation to alternatives and BPO.

10.7. Assessments of alternatives were conducted for both WWTPs and concluded to be economically and practically unfeasible.

11. SECTION 107

11.1. Section 107 of the RMA states that a consent authority shall not grant a coastal permit allowing a discharge of contaminants to water if, after reasonable mixing, the contaminant (by itself or in combination with other contaminants) is likely to give rise to:

(c) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:

(d) any conspicuous change in the colour or visual clarity:

(e) any emission of objectionable odour:

(f) the rendering of fresh water unsuitable for consumption by farm animals:

(g) any significant adverse effects on aquatic life.

11.2. In relation to clause (e), Operations have addressed potential odour associated with the conveyance, treatment, and discharge of the wastewater. They state at Paragraph 6.d. of their evidence, *"If odour is an issue* [at Kohukohu]*, this could be reduced by sealing the pumpstation and installing an odour unit which will look like a dome on top of the pumpstation. The dome may however exacerbate submitters' concerns about the visual effects of the pumpstation."*

11.3. Clause (f) is relevant to both the KOH-WWTP and OPO-WWTP as both systems include discharges to land in a manner which may enter water from the pond systems and constructed wetlands.

11.4. In the case of the KOH-WWTP, groundwater underlying the WWTP flows to Hokianga Harbour and there are no records which indicate that groundwater is utilised for stock drinking purposes between (i.e., bore records) and the Hokianga Harbour is not a suitable source of stock drinking water.

11.5. There is an assumed factor of seepage of wastewater from the OPO-WWTP to groundwater and/or into the Waiarohia Stream. The assumption has been made in the application that such seepage is likely to be minimal based on the clayey nature of surrounding subsoils and that the wastewater forms a seal on the bottom of the ponds and wetlands overtime. Additionally in relation to Clause (f), the OPO-WWTP is situated within a valley floor hydraulically above properties used for quarrying, transfer station facilities, and recreation and not for intensive grazing of stock.

12. PART 2 RMA

12.1. As demonstrated in the assessment of the activity against relevant planning provisions and the activity's effects on the environment, subject to the amendments to Councils recommended consent conditions, the activity will promote the sustainable management of natural and physical resources in accordance with Part 2 of the RMA.

13. MATTERS RAISED BY SUBMITTERS

13.1. I consider that these matters have been largely addressed throughout my evidence and by the recommended conditions of consent, with the exception of the following.

Cultural values

13.2. While the ongoing operation of the WWTP may be offensive to some cultural values, the lack of viable alternatives at present require the continued use of the

WWTPs to treat and discharge wastewater. In saying this however, Dr. Macdonald, at Paragraph 109 of her evidence, notes that while discharging to land for both WWTPs is not feasible at this time, should criteria change or other information become available, then this conclusion can be revisited.

Delay decision

13.3. Hokianga Harbour Care Inc sought for the decision on the resource consent for OPO-WWTP to be delayed awaiting the establishment of the new Three Waters entity.

13.4. There is no need to delay a decision on the resource consenting as the RMA gives the consenting authority the capability to review the resource consents pursuant to Section 128 should circumstances compel them to do so. Additionally, should an alternative become available during the recommended consent duration, the Applicant would likely surrender the resource consent to discharge treated wastewater to the harbour to avoid paying double the administrative costs. The surrender of the consent would be a decision made only once an alternative has been confirmed as being operationally, financially, and environmentally viable.

Affected persons

13.5. Te Mauri o Te Wai submitted that the KOH-WWTP application did not take an integrated approach regarding affected persons while Ngāti Korokoro Hapū-Ngāti Korokoro Hapū Trust submitted that the Applicant should update databases to include the Trust as having a vested interest in all resource management matters of the south Hokianga.

13.6. While I consider these matters to be outside of the scope of considerations for these applications at this time, I do note that the Applicant requested public notification of the applications to ensure that the communities, hapū and general public had the opportunity to submit and be heard.

Marine and Coastal Area (Takutai Moana) Act 2011

13.7. Ipu Absolum writes that the hapū of Te Mahurehure, Te Uri Kaiwhare, and Ngāpuhi collectively have not been able to meet to discuss the impacts the consents will have on their MACA claims due to the COVID-19 levels and lockdowns since early 2020 and that engagement with hapū holding mana moana has not taken place.

13.8. Matihetihe Marae Trust represents the hapū of Te Tao Maui and Te Hokokeha and has an application under MACA for recognition of its customary marine title and protected customary rights over this area. The discharge impacts on their cultural relationships and associations with the Hokianga harbour and that the lack of engagement is of utmost concern.

13.9. A pre-application version of the OPO-AEE was circulated to MACA applicants in accordance with Section 62(3) of the MACA. I am not aware of KOH-AEE being circulated to MACA applicants and believe that this was not procedurally required under MACA due to their being no resource consent sought for use or occupation of common marine area.

13.10. MACA recognises that Māori may have exclusive customary interests in otherwise public areas of the foreshore and seabed. However, those interests cannot prevent existing rights and uses such as public access, navigation, and fishing for example.

13.11. The occupation and use of the outfall pipe under the foreshore and on the seabed is an existing activity which currently requires resource consent to continue to be present within the CMA. However, once the appeals on the General Coastal conditions at C.1.8 of the PRPN have been resolved, the activity will be a permitted activity. In either scenario, the ability to maintain the presence of the outfall pipe within the CMA is currently not able to be challenged under MACA but can be under the RMA.

13.12. In my experience, MACA is not an appropriate statute to invoke regarding indirect effects on customary interests such as those which may occur from the quality and quantity of the discharge of treated wastewater to coastal waters. I consider that the RMA provides the necessary framework for assessing and deciding on matters which are or are likely to have adverse effects on the values raised by MACA applicants on these applications.

14. COUNCIL'S PRE-HEARING REPORT

14.1. I have read the Council Planner's Report, and generally concur with the conclusions reached regarding the approval of the discharges. Where I do not concur, I have stated so in my evidence above.

14.2. The consent conditions presented in the two s42A reports do not differ significantly to those proposed in the two AEE reports, and responses to requests for further information.

14.3. While I do not propose major amendments to the recommended conditions, I have attached an amended set of conditions which are supported by the Applicant. The following paragraphs provide reasons for the amendments.

OPO-WWTP (APP.002667.01.04)

-	• AMEND legal descriptions – reasons outlined at Paragraph 7.11 of my evidence. • DELETE descriptor referring to a definition of the Opononi and Ōmāpere communities – see reasoning at Paragraph 63 of Ms Parlane's evidence.
3.	• AMEND - see evidence of Dr. Macdonald (Paragraph 72).
5-8	• DELETE unless agreed alternative available – see evidence of Ms Parlane (Paragraphs 64 and 65).
12	• AMEND – so far as the Operators and Asset Manager are aware (personal communications, 1 May 2023), the tide clock used is not a piece of equipment that can be calibrated in the manner anticipated in this condition. That is unless calibration just means to 'check' the clock against another clock to which this can be accommodated.
17	• AMEND – see evidence of Ms Parlane (Paragraph 66 and 67) and that of Dr. Macdonald (Paragraph 74).
19	• AMEND – see evidence of Dr Macdonald (Paragraph 75).

26A	• AMEND - The continued presence of the marker buoy at the site of the outfall is an important measure to mitigate risks to the public.
27	• PARTIAL DELETION – at this stage no CLG is proposed for reasons set out by Ms Parlane in her evidence. Even if a CLG was to be instated, this requirement would cause unnecessary administration and oversight for inspections to take place given they are heavily weather dependent.
Sch.1 3.	• DELETION – the Applicant will continue to take samples from the Waiarohia Stream despite what the results may indicate after two-years as this will assist with integrated management of land and water in the catchment.

KOH-WWTP (APP.003830.01.03)

-	• Minor amendments to activity description to make consistent with OPO-WTTP (APP002667.01.04). • Recommend that the NRC inserts grid coordinates to each consented activity consistent with OPO-WWTP (APP.002667.01.04) which does not contain a single map co-ordinate.
4(b)	• CORRECTION
8(a)(i)	• MINOR DELETION - the Applicant stores records of the CEDS electronically and in fact this information is available online (3Waters GIS).
8(a)(iv)	• DELETE – the Applicant is aware that property owners may want to keep this information private. The information would only be particularly relevant if there was a reticulated water scheme servicing households as more water use and therefore greater effluent volumes may result.
10-13	•DELETE unless agreed alternative available – see evidence of Ms Parlane (Paragraphs 71, supported by Paragraohs 64 and 65).

18	• DELETE – site 322 doesn't exist on the plan attached to the recommended conditions.
21	• AMEND – see Dr Macdonalds evidence (Paragraph 113).
22-23	• DELETE - Jacobs-KOH (at Table 5-2) calculated that at the maximum reported value of 49 mg/L for ammoniacal nitrogen (2016-2019) diluted in the waters of the harbour at the discharge point would result in a concentration of 0.00098 mg/L in the receiving environment from the KOH-WWTP. • Performance values for median and 95th percentile concentrations of faecal coliforms are proposed at Condition 21. These values were considered appropriate by Dr. Dada to avoid adverse effects to public health from the discharge. • Therefore, provided the performance standards relating to median and 90th percentiles are met, the maintenance of coastal water quality would not be adversely affected by the proposed discharge.
Sch.1 & 2	• MULTIPLE DELETIONS - in-pipe discharge performance values recommended at Condition 21 are appropriate as these have been assessed as having less than minor impacts on receiving water quality and public health (evidence of Dr. Dada and Dr. Macdonald).
Monitoring locations	• AMEND - I consider that monitoring takes place within the areas that the Applicant has control, these being; Site 2052, 323, and 2051.

15. CONCLUSIONS

15.1. While the current operation of the WWTPs has led to non-compliant discharges to water, these can be addressed through treatment process improvements and maintenance.

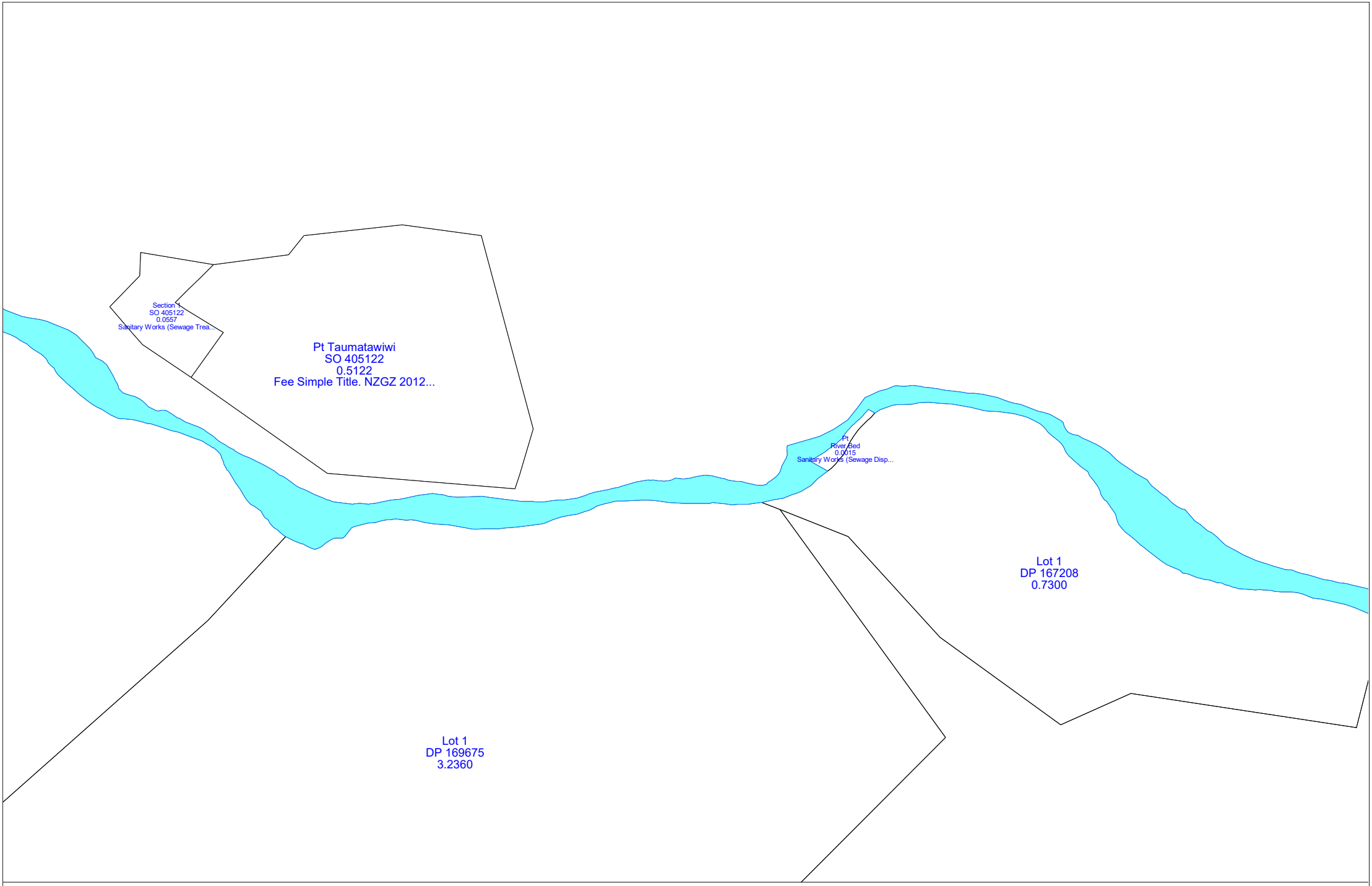
15.2. The continued operation of the WWTPs also represents the BPO solution and no further work is planned to be undertaken to determine whether disposal to land is both a practical and affordable option for the community at this time.

15.3. The applications are consistent with the relevant statutory tests and planning documents, particularly given the regional significance of the WWTPs, the role they perform in protecting public health, and there social and economic benefits.

15.4. Overall, I consider that the proposed discharges can be granted consent, subject to the conditions recommended by the Council and proposed in my evidence.

Martell Letica

3 May 2023



0 20 40 60 80 100 120 140 160m

QuickMap
Custom Software Ltd

Any person wishing to rely on the information shown on this map must independently verify the information

Scale 1:1283 Topographical and Cadastral map derived from LINZ data. Printed: 30-Apr-2023 08:11.

PETER STEVENSON LITTLE, Manager, Land Management Unit.

(MMD HO 6/38)

ln6100

Public Works Act 1981

Land and Easements Acquired—Baker Drive, Omapere, Far North District

Pursuant to sections 20 and 28 of the Public Works Act 1981, and to a delegation from the Minister for Land Information, Ronald Alistair Jolly, Land Information New Zealand, declares that, pursuant to an agreement to that effect having been entered into:

(a) The land described in the First Schedule to this notice is hereby acquired for sanitary works (sewage treatment site) and shall vest in the Far North District Council;

(b) A right of way easement in gross is acquired over the land described in the Second Schedule to this notice appurtenant to the Far North District Council upon the terms and conditions set out in Schedule 4 of the Land Transfer Regulations 2002 and Schedule 5 of the Property Law Act 2007, and as modified by the Fourth Schedule herein;

(c) A right to convey water in gross is acquired over the land described in the Third Schedule to this notice, appurtenant to the Far North District Council upon the terms and conditions set out in Schedule 4 of the Land Transfer Regulations 2002,

on the date of publication hereof in the *New Zealand Gazette*.

North Auckland Land District—Far North District

First Schedule

Land Acquired for Sanitary Works (Sewage Treatment Site)

Area m^2	Description
557	Part Lot 1 DP 209937; shown as Section 1 on SO 405122 (Part Computer Freehold Register NA138A/55).

Second Schedule

Right of Way Acquired

Part Lot 1 DP 209937; marked "J", "L", "M", "N" and "O" on SO 405122.

Third Schedule

Right to Convey Water Acquired

Part Lot 1 DP 209937; marked "N", "P", "Q", "S" and "M" on SO 405122.

Fourth Schedule

The Far North District Council (hereinafter called the "council") shall maintain and repair the right of way at its own expense and any dispute as to the liability of the council under this condition shall be determined by arbitration under the Arbitration Act 1996.

The fence along the right of way described in the Second Schedule is maintained by the servient tenement who shall continue maintaining the fence in a stock proof manner.

The council has covenanted that Wayne Revell Baker (hereinafter called the "vendor") shall not be liable nor called upon to contribute towards the costs of erection or maintenance of any dividing or boundary fence between the land acquired by the council for sanitary works (sewage treatment site) under this notice and under GN C422845.1, and any land belonging to the vendor, but this provision shall not enure to the benefit of any purchaser or purchasers from the vendor of any such adjoining land.

Dated at Wellington this 17th day of September 2012.

R. A. JOLLY, for the Minister for Land Information.

(LINZ CPC/2005/10885)

ln6123

Land Declared Road—State Highway 29 Te Awanui Drive, Tauranga City

Pursuant to section 114 of the Public Works Act 1981, and to a delegation from the Minister for Land Information, Ronald Alistair Jolly, Land Information New Zealand, declares the land described in the Schedule to this notice to be road which, pursuant to section 88(2) of the Government Roading Powers Act 1989, becomes road, limited access road and State highway and shall vest in the Crown on the date of publication hereof in the *New Zealand Gazette*.

South Auckland Land District—Tauranga City

Schedule

Land Declared Road and State Highway

Area m^2	Description
246	Part Lot 1 DP 35717; shown as Section 7 on SO 430362 (Computer Freehold Register SA995/47).
548	Part Lot 2 DP 35717; shown as Section 8 on SO 430362 (Computer Freehold Register SA1459/46).
2635	Part Lot 2 DPS 12705; shown as Section 9 on SO 430362 (Computer Freehold Register SA48B/73).
9	Part Lot 2 DPS 16464; shown as Section 12 on SO 430362 (Computer Freehold Register 480807).

Dated at Wellington this 17th day of September 2012.

R. A. JOLLY, for the Minister for Land Information.

(LINZ CPC/2006/11452)

ln6101

Land Declared Road—Svendsen Road, Pukekohe, Auckland

Pursuant to section 114 of the Public Works Act 1981, and to a delegation from the Minister for Land Information, Ronald Alistair Jolly, Land Information New Zealand, declares the land described in the Schedule hereto to be road and to remain vested in the Auckland Council on the date of publication hereof in the *New Zealand Gazette.*

North Auckland Land District—Auckland

Schedule

Land Declared as Road

Area m^2	Description
376	Part Lot 1 DP 64395; shown as Section 1 on SO 440667 (Part Computer Freehold Register NA20D/364).
206	Part Lot 3 DP 138300; shown as Section 3 on SO 440667 (Part Computer Freehold Register NA81D/821).
1051	Part Lot 2 DP 138300; shown as Section 5 on SO 440667 (Part Computer Freehold Register NA81D/820).
442	Part Lot 1 DP 138300; shown as Section 7 on SO 440667 (Part Computer Freehold Register NA81D/819).
556	Part Lot 3 DP 138300; shown as Section 10 on SO 440667 (Part Computer Freehold Register NA81D/821).

APPENDIX C - Assessment of relevant provisions of documents stated in Section 104(1)(b) RMA

NEW ZEALAND COASTAL POLICY STATEMENT 2010 (NZCPS)	
Relevant Provision	**Assessment**
Objective 1 To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by: • *maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;* • *protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and* • *maintaining coastal water quality, and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity.* **Policy 11: Indigenous biological diversity** To protect indigenous biological diversity in the coastal environment: *a. avoid adverse effects of activities on:* *i. indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists;* *ii. taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened;* *iii. indigenous ecosystems and vegetation types that are threatened in the coastal environment, or are naturally rare;* *iv. habitats of indigenous species where the species are at the limit of their natural range, or are naturally rare;* *v. areas containing nationally significant examples of indigenous community types; and* *vi. areas set aside for full or partial protection of indigenous biological diversity under other legislation; and* *b. avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on:* *i. areas of predominantly indigenous vegetation in the coastal environment;* *ii. habitats in the coastal environment that are important during the vulnerable life stages of indigenous species;* *iii. indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dune lands, intertidal zones, rocky reef systems, eelgrass and saltmarsh;* *iv. habitats of indigenous species in the coastal environment that are* *v. important for recreational, commercial, traditional or cultural purposes;* *vi. habitats, including areas and routes, important to migratory species; and* *vii. ecological corridors, and areas important for linking or maintaining* *viii. biological values identified under this policy.* **Policy 21: Enhancement of water quality** *Where the quality of water in the coastal environment has deteriorated so that it is having a significant adverse effect on ecosystems, natural habitats, or water based recreational activities, or is restricting existing uses, such as aquaculture, shellfish gathering, and cultural activities, give priority to improving that quality by:* *a. identifying such areas of coastal water and water bodies and including them in plans;* *b. including provisions in plans to address improving water quality in the areas identified above;* *c. where practicable, restoring water quality to at least a state that can support such activities and ecosystems and natural habitats;* *d. …; and* *e. engaging with tangata whenua to identify areas of coastal waters where they have particular interest, for example in cultural sites, wāhi tapu, other taonga, and values such as mauri, and remedying, or, where remediation is not practicable, mitigating adverse effects on these areas and values.*	These provisions have been given adequate effect to in the PRPN with analysis given below.

Policy 23: Discharge of Contaminants *1. In managing discharges to water in the coastal environment, have particular regard to:* *a. the sensitivity of the receiving environment;* *b. the nature of the contaminants to be discharged, the particular concentration of contaminants needed to achieve the required water quality in the receiving environment, and the risks if that concentration of contaminants is exceeded; and* *c. the capacity of the receiving environment to assimilate the contaminants; and:* *d. avoid significant adverse effects on ecosystems and habitats after reasonable mixing;* *e. use the smallest mixing zone necessary to achieve the required water quality in the receiving environment; and* *f. minimise adverse effects on the life-supporting capacity of water within a mixing zone.* *2. In managing discharge of human sewage, do not allow:* *a. discharge of human sewage directly to water in the coastal environment without treatment; and* *b. the discharge of treated human sewage to water in the coastal environment, unless:* *i. there has been adequate consideration of alternative methods, sites and routes for undertaking the discharge; and* *ii. informed by an understanding of tangata whenua values and the effects on them.*	
Objective 2 *To preserve the natural character of the coastal environment and protect natural features and landscape values through:* • *recognising the characteristics and qualities that contribute to natural character, natural features and landscape values and their location and distribution;* • *identifying those areas where various forms of subdivision, use, and development would be inappropriate and protecting them from such activities; and* • *encouraging restoration of the coastal environment.* ***Policy 13: Preservation of natural character*** *1) To preserve the natural character of the coastal environment and to protect it from inappropriate subdivision, use, and development:* *a. avoid adverse effects of activities on natural character in areas of the coastal environment with outstanding natural character; and* *b. avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on natural character in all other areas of the coastal environment; including by:* *c. assessing the natural character of the coastal environment of the region or district, by mapping or otherwise identifying at least areas of high natural character; and* *d. ensuring that regional policy statements, and plans, identify areas where preserving natural character requires objectives, policies and rules, and include those provisions.* *2) Recognise that natural character is not the same as natural features and landscapes or amenity values and may include matters such as:* *a. natural elements, processes and patterns;* *b. biophysical, ecological, geological and geomorphological aspects;* *c. natural landforms such as headlands, peninsulas, cliffs, dunes, wetlands, reefs, freshwater springs and surf breaks;* *d. the natural movement of water and sediment;* *e. the natural darkness of the night sky;* *f. places or areas that are wild or scenic;*	Unlike land use consents, coastal and discharge permits have limited durations and it is reasonable to reassess the appropriateness of these activities and their potential effects on character and amenity where replacement consenting is required. However, character and amenity relate to the existing environment and not a natural baseline. The landward extent of the coastal environment is identified in the RPS and pFNDP. Based on this overlay the coastal environment includes the KOH-WWTP and the ponds of the OPO-WWTP but not the CWL of the OPO-WWTP. As identified elsewhere in my evidence, the natural character of the Hokianga Harbour is mapped in the RPS as having 'High Natural Character'. There are no mapped Outstanding Natural Features or Landscapes within a 4-kilometre radius of the KOH-WWTP while Te Pouahi headland (Outstanding Natural Feature), and Niua (North head) (Outstanding Natural Character and Landscape) are approximately 1 kilometre to the west of the OPO-WWTP submerged discharge pipe. Based on the mapping, I conclude that the natural landscape and natural character values of the marine areas impacted by the discharge are not outstanding. As a result, the requirement to 'avoid' adverse effects, set under clause 1(a) of Policy 13 and clause (a) of Policy 15 does not apply to the discharge. The requirements that do apply to the proposed discharge are contained in clauses 1 (b) of Policy 13 and (b) of Policy 15, i.e. avoid significant adverse effects and avoid, remedy or mitigate all other adverse effects on the landscape and natural character values of the area. The WWTP and discharge activities will preserve the current character of the coastal environment and do not directly impact on outstanding natural features or landscapes. Adverse effects on air quality have the potential to undermine the preservation of the natural character of the coastal environment which surrounds the WWTP. The operation of the WWTPs have the potential to have adverse odour effects on the areas surrounding the WWTP. FNDC keeps a register of odour complaints for all WWTPs. Over the period of this resource consent neither NRC nor FNDC has not received any complaints regarding odour from the WWTP or the discharge. There is approximately 160 metres between the boundary of the OPO-WWTP at the detention pond and the nearest dwelling, the dwelling is elevated approximately 30 metres above the OPO-WWTP. The area is zoned in the operative FNDP as Rural Production, and minimal further development around the OPO-WWTP should be expected given RPS, FNDP, and pFNDP policies and performance standards regarding avoidance of reverse sensitivity effects.

g. a range of natural character from pristine to modified; and *h. experiential attributes, including the sounds and smell of the sea; and their context or setting.* **Policy 15 Natural features and natural landscapes** *To protect the natural features and natural landscapes (including seascapes) of the coastal environment from inappropriate subdivision, use, and development:* *a. avoid adverse effects of activities on outstanding natural features and* *b. outstanding natural landscapes in the coastal environment; and avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of activities on other natural features and natural landscapes in the coastal environment; including by:* *c. identifying and assessing the natural features and natural landscapes of the coastal environment of the region or district, at minimum by land typing, soil characterisation and landscape characterisation and having regard to:* *i. natural science factors, including geological, topographical,* *ii. ecological and dynamic components;* *iii. the presence of water including in seas, lakes, rivers and streams;* *iv. legibility or expressiveness – how obviously the feature or landscape demonstrates its formative processes;* *v. aesthetic values including memorability and naturalness;* *vi. vegetation (native and exotic);* *vii. transient values, including presence of wildlife or other values at certain times of the day or year;* *viii. whether the values are shared and recognised;* *ix. cultural and spiritual values for tangata whenua, identified by working, as far as practicable, in accordance with tikanga Māori; including their expression as cultural landscapes and features;* *x. historical and heritage associations; and* *xi. wild or scenic values;* *d. ensuring that regional policy statements, and plans, map or otherwise identify areas where the protection of natural features and natural landscapes requires objectives, policies and rules; and* *e. including the objectives, policies and rules required by (d) in plans.*	The distance, vegetation and topography indicate that it is unlikely that the discharge of odour will have an adverse effect beyond the property boundary. Therefore, provided that the treatment efficiency of the OPO-WWTP is maintained, it is reasonable to conclude that the OPO-WWTP operations contributes a minimal odour discharge and unlikely to give rise to offensive or objectionable odours at or beyond the property boundary. The nearest habitable building to the KOH-WWTP is Tauteihiihi Marae which is located between 250 m and 350 m to the northwest. There is also a sporting field located immediately to the north of the KOH-WWTP and the Hokianga moana as a place of recreation. The predominant wind direction is southwest, therefore wind will generally carry odour from these areas where people are likely to be present. The KOH-CIA states that there are times Tauteihiihi Marae has experienced odour effects and that this has impacted the ability of the marae to provide a quality marae environment, and sense of place for manuhiri (guests) who may visit the marae. This is followed by a directive that the cultural and customary practices undertaken at the Marae should not be implicated by odour generated by the KOH-WWTP. Ms Macdonald considers that these adverse effects can be adequately mitigated through the upgrades proposed as detailed in her evidence. The Applicant proposes to implement these recommendations through consent conditions, which I set out in in Appendix D to my evidence. Given the above, I consider that the air discharge application is consistent with Policy 13 and will not undermine the preservation of the natural character of the coastal environment in the vicinity of the WWTP.
Objective 3 *To take account of the principles of the Treaty of Waitangi, recognise the role of tangata whenua as kaitiaki and provide for tangata whenua involvement in management of the coastal environment by:* • *recognising the ongoing and enduring relationship of tangata whenua over their lands, rohe and resources;* • *promoting meaningful relationships and interactions between tangata whenua and persons exercising functions and powers under the Act;* • *incorporating mātauranga Māori into sustainable management practices; and* • *recognising and protecting characteristics of the coastal environment that are of special value to tangata whenua.* ***Policy 2: The Treaty of Waitangi, tangata whenua and Māori*** *In taking account of the principles of the Treaty of Waitangi (Te Tiriti o Waitangi), and kaitiakitanga, in relation to the coastal environment:* *a. recognise that tangata whenua have traditional and continuing cultural relationships with areas of the coastal environment, including places where they have lived and fished for generations;* *b. …* *c. with the consent of tangata whenua and as far as practicable in accordance with tikanga Māori, incorporate mātauranga Māori[1] in regional policy statements, in plans, and in the consideration of applications for resource consents, notices of requirement for designation and private plan changes;*	

d. *provide opportunities in appropriate circumstances for Māori involvement in decision making, for example when a consent application or notice of requirement is dealing with cultural localities or issues of cultural significance, and Māori experts, including pūkenga[2], may have knowledge not otherwise available;* e. *take into account any relevant iwi resource management plan and any other relevant planning document recognised by the appropriate iwi authority or hapū and lodged with the council, to the extent that its content has a bearing on resource management issues in the region or district; and* i. *where appropriate incorporate references to, or material from, iwi resource management plans in regional policy statements and in plans; and* ii. *consider providing practical assistance to iwi or hapū who have indicated a wish to develop iwi resource management plans;* f. *provide for opportunities for tangata whenua to exercise kaitiakitanga over waters, forests, lands, and fisheries in the coastal environment through such measures as:* i. *bringing cultural understanding to monitoring of natural resources;* ii. *providing appropriate methods for the management, maintenance and protection of the taonga of tangata whenua;* iii. *having regard to regulations, rules or bylaws relating to ensuring sustainability of fisheries resources such as taiāpure, mahinga mātaitai or other non commercial Māori customary fishing;* g. …	
Objective 4 *To maintain and enhance the public open space qualities and recreation opportunities of the coastal environment by:* • *recognising that the coastal marine area is an extensive area of public space for the public to use and enjoy;* • *maintaining and enhancing public walking access to and along the coastal marine area without charge, and where there are exceptional reasons that mean this is not practicable providing alternative linking access close to the coastal marine area; and* • *recognising the potential for coastal processes, including those likely to be affected by climate change, to restrict access to the coastal environment and the need to ensure that public access is maintained even when the coastal marine area advances inland.* ***Policy 18: Public open space*** *Recognise the need for public open space within and adjacent to the coastal marine area, for public use and appreciation including active and passive recreation, and provide for such public open space, including by:* a. *ensuring that the location and treatment of public open space is compatible with the natural character, natural features and landscapes, and amenity values of the coastal environment;* b. *taking account of future need for public open space within and adjacent to the coastal marine area, including in and close to cities, towns and other settlements;* c. *maintaining and enhancing walking access linkages between public open space areas in the coastal environment;* d. *considering the likely impact of coastal processes and climate change so as not to compromise the ability of future generations to have access to public open space; and* e. *recognising the important role that esplanade reserves and strips can have in contributing to meeting public open space needs.*	Although the WWTPs and the discharge facilities do not pose a physical impediment to the public to access the coastal environment, Te Ihutai state they have lost access and relationship to the CMA resulting in a displacement of being able to gather food for manuhiri (guests) as a result of the presence of KOH-WWTP on reclaimed land. Additionally, Te Ihutai state that odour discharges from the KOH-WWTP have adversely impacted their use of their marae. However, subject to the proposed consent conditions, which I set out in in Appendix # to my evidence, adverse odour discharges to air beyond the boundary of the designated site should not occur. Given this I consider that the occupation and presence of the infrastructure within the coastal environment and discharge of odour to air from the WWTPs will be consistent with Objective 4 and Policy 18.

Objective 5 *To ensure that coastal hazard risks taking account of climate change, are managed by:* • *locating new development away from areas prone to such risks;* • *considering responses, including managed retreat, for existing development in this situation; and* • *protecting or restoring natural defences to coastal hazards.* **Policy 24: Identification of coastal hazards** a. *Identify areas in the coastal environment that are potentially affected by coastal hazards (including tsunami), giving priority to the identification of areas at high risk of being affected. Hazard risks, over at least 100 years, are to be assessed having regard to:* b. *physical drivers and processes that cause coastal change including sea level rise;* c. *short-term and long-term natural dynamic fluctuations of erosion and accretion;* d. *geomorphological character;* e. *the potential for inundation of the coastal environment, taking into account potential sources, inundation pathways and overland extent;* f. *cumulative effects of sea level rise, storm surge and wave height under storm conditions;* g. *influences that humans have had or are having on the coast;* h. *the extent and permanence of built development; and* i. *the effects of climate change on:* ii. *matters (a) to (g) above;* iii. *storm frequency, intensity and surges; and* iv. *coastal sediment dynamics;* *taking into account national guidance and the best available information on the likely effects of climate change on the region or district.* ***Policy 25: Subdivision, use, and development in areas of coastal hazard risk*** *In areas potentially affected by coastal hazards over at least the next 100 years:* a. *avoid increasing the risk[10] of social, environmental and economic harm from coastal hazards;* b. *avoid redevelopment, or change in land use, that would increase the risk of adverse effects from coastal hazards;* c. *encourage redevelopment, or change in land use, where that would reduce the risk of adverse effects from coastal hazards, including managed retreat by relocation or removal of existing structures or their abandonment in extreme circumstances, and designing for relocatability or recoverability from hazard events;* d. *encourage the location of infrastructure away from areas of hazard risk where practicable;* e. *discourage hard protection structures and promote the use of alternatives to them, including natural defences; and* f. *consider the potential effects of tsunami and how to avoid or mitigate them.*	There is no coastal erosion hazard risk mapped in or around the KOH-WWTP. However the KOH-WWTP site and most of the reticulation is within mapped coastal inundation and flood hazard areas. The OPO-WWTP and reticulation is within coastal erosion, inundation, and flood areas. The analysis by Jacobs confirms that there is low risk of occurrenace of the coastal hazard effects identified during the recommended terms of consent. The OPO-AEE at Section 14 contains a comprehensive analysis of coastal hazard impacts on the wastewater infrastructure. Overall, the conclusion in the OPO-AEE was that a small portion of the Opononi Omapere network is likely to be affected by coastal flooding and erosion by 2065. The Far North District Council 30 Year Infrastructure Strategy sets out its strategic commitments to resilience of, and improvements to, wastewater infrastructure taking into account the impacts of climate change. Putting these strategic commitments into action will require consultation with communities in accordance with the Local Government Act 2002. The consultative process of spatial and built environment planning will better support the process of preparing communities to provide for their economic, social, and cultural wellbeing under a climate change scenario. Considering the mitigation and remediation available to continue to operate the WWTPs under varying impacts of climate change, it is not considered necessary to provision for such impacts within the resource consents.
Objective 6 *To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that:*	In relation to Objective 6 and Policy 6, I note that: • the WWTPs serve the small rural residential populations on the west coast of the Far North District.

• *the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits;* • *some uses and developments which depend upon the use of natural and physical resources in the coastal environment are important to the social, economic and cultural wellbeing of people and communities;* • *functionally some uses and developments can only be located on the coast or in the coastal marine area;* • *the coastal environment contains renewable energy resources of significant value;* • *the protection of habitats of living marine resources contributes to the social, economic and cultural wellbeing of people and communities;* • *the potential to protect, use, and develop natural and physical resources in the coastal marine area should not be compromised by activities on land;* • *the proportion of the coastal marine area under any formal protection is small and therefore management under the Act is an important means by which the natural resources of the coastal marine area can be protected; and* • *historic heritage in the coastal environment is extensive but not fully known, and vulnerable to loss or damage from inappropriate subdivision, use, and development.* ***Policy 6: Activities in the coastal environment*** *1. In relation to the coastal environment:* *a. recognise that the provision of infrastructure, the supply and transport of energy including the generation and transmission of electricity, and the extraction of minerals are activities important to the social, economic and cultural well-being of people and communities;* *b. consider the rate at which built development and the associated public infrastructure should be enabled to provide for the reasonably foreseeable needs of population growth without compromising the other values of the coastal environment;* *c. encourage the consolidation of existing coastal settlements and urban areas where this will contribute to the avoidance or mitigation of sprawling or sporadic patterns of settlement and urban growth;* *d. recognise tangata whenua needs for papakāinga, marae and associated developments and make appropriate provision for them;* *e. consider where and how built development on land should be controlled so that it does not compromise activities of national or regional importance that have a functional need to locate and operate in the coastal marine area;* *f. consider where development that maintains the character of the existing built environment should be encouraged, and where development resulting in a change in character would be acceptable;* *g. take into account the potential of renewable resources in the coastal environment, such as energy from wind, waves, currents and tides, to meet the reasonably foreseeable needs of future generations;* *h. consider how adverse visual impacts of development can be avoided in areas sensitive to such effects, such as headlands and prominent ridgelines, and as far as practicable and reasonable apply controls or conditions to avoid those effects;* *i. set back development from the coastal marine area and other water bodies, where practicable and reasonable, to protect the natural character, open space, public access and amenity values of the coastal environment; and* *j. where appropriate, buffer areas and sites of significant indigenous biological diversity, or historic heritage value.* *2. Additionally, in relation to the coastal marine area:* *a. recognise potential contributions to the social, economic and cultural wellbeing of people and communities from use and development of the coastal marine area, including the potential for renewable marine energy to contribute to meeting the energy needs of future generations;* *b. recognise the need to maintain and enhance the public open space and recreation qualities and values of the coastal marine area;*	• The benefits of the WWTPs relate to public health and assisting the communities to provide for their environmental, social, cultural and economic wellbeings. • The applications seeks consent either for the same or lower discharge volumes which have been assessed as being appropriate to provide for the foreseeable needs of the population. • The alternatives assessments both indicate that there are no viable alternatives to the coastal marine area as a receiving environment for the treated wastewater. I therefore consider that there is a functional need for the discharge from both WWTPs to be to the coastal marine area. • The proposal includes upgrades (currently underway) that will improve public health risks associated with the discharge to coastal waters. Based on these points I considered that the proposal is consistent with Objective 6 and Policy 6

c. *recognise that there are activities that have a functional need to be located in the coastal marine area, and provide for those activities in appropriate places;* d. *recognise that activities that do not have a functional need for location in the coastal marine area generally should not be located there; and* e. *promote the efficient use of occupied space, including by:* i. *requiring that structures be made available for public or multiple use wherever reasonable and practicable;* ii. *requiring the removal of any abandoned or redundant structure that has no heritage, amenity or reuse value; and* iii. *considering whether consent conditions should be applied to ensure that space occupied for an activity is used for that purpose effectively and without unreasonable delay*	
PROPOSED REGIONAL PLAN FOR NORTHLAND (DECEMBER 2022)	
Provision	**Comment**
PRPN Objective F.1.9 Tāngata whenua role in decision-making *Tāngata whenua's kaitiaki role is recognised and provided for in decision-making over natural and physical resources.* *D.1.1 When an analysis of effects on tāngata whenua and their taonga is required* *A resource consent application must include in its assessment of environmental effects an analysis of the effects of an activity on tāngata whenua and their taonga92 if one or more of the following is likely:* *1) adverse effects on mahinga kai93 or access to mahinga kai94, or* *2) any damage, destruction or loss of access to wāhi tapu, sites of customary value and other ancestral sites and taonga with which Māori have a special relationship95, or* *3) adverse effects on indigenous biodiversity in the beds of waterbodies or the coastal marine area where it impacts on the ability of tāngata whenua to carry out cultural and traditional activities96, or* *4) the use of genetic engineering and the release of genetically modified organisms to the environment, or* *5) adverse effects on tāiapure, mataitai or Māori non-commercial fisheries,97 or* *6) adverse effects on protected customary rights,98 or* *7) adverse effects on sites and areas of significance to tāngata whenua mapped in the Regional Plan (refer I Maps | Ngā mahere matawhenua).* ***PRPN D.1.2 Requirements of an analysis of effects on tangata whenua and their taonga*** *If an analysis of the effects of an activity on tāngata whenua and their taonga is required in a resource consent application, the analysis must:* *1) Include such detail as corresponds with the scale and significance of the effects that the activity may have on tāngata whenua and their taonga, and* *2) have regard to (but not be limited to):* *a) any relevant planning document recognised by an iwi authority (lodged with the Council) to the extent that its content has a bearing on the resource management issues of the region, and* *b) the outcomes of any consultation with tāngata whenua with respect to the consent application, and* *c) statutory acknowledgements in Treaty Settlement legislation, and*	An analysis of the effects of the proposed activities on tangata whenua and their taonga was commissioned by the Applicant for both WWTPs. Based on the two CIA, the applications are not consistent with the provisions of the RPS or the PRPN-2022.

3) *follow best practice, 99 including requesting, in the first instance, that the relevant tāngata whenua undertake the assessment, and*

4) *specify the tāngata whenua that the assessment relates to, and*

5) *be evidence-based, and*

6) *incorporate, where appropriate, mātauranga Māori, and*

7) *identify and describe all the cultural resources and activities that may be affected by the activity, 100 and*

8) *identify and describe the adverse effects of the activity on the cultural resources and cultural practices (including the effects on the mauri of the cultural resources, the cultural practices affected, how they are affected, and the extent of the effects), and*

9) *identify, where possible, how to avoid, remedy or mitigate the adverse effects on cultural values of the activity that are more than minor, and*

10) *include any other relevant information.*

PRPN Policy D.1.3 Affected Persons

The following persons must be considered an affected person regarding notification[101] where the adverse effects on the following resources and activities are minor or more than minor:

Table 16: Circumstances where tāngata whenua are adversely affected for purposes of notification

Person	Resource or activity
The tāngata whenua identified in an analysis of the effects undertaken in accordance with policy D.1.2 'Requirements of an analysis of effects on tāngata whenua and their taonga'.	Cultural resources or activities identified in an analysis of effects undertaken in accordance with Policy D.1.2.
The committee of management of a taiāpure.	Taiāpure
The Māori committee, marae committee or the kaitiaki with responsibility for the mataitai.	Mataitai
The tangāta kaitiaki / tiaki appointed by the provisions of the Fisheries (Kaimoana Customary Fishing) Regulations 1998 for the relevant rohe moana.	Non-commercial Māori fisheries.

PRPN Policy D.1.4 Managing effects on places of significance to tangata whenua

Resource consent for an activity may generally only be granted if the adverse effects from the activity on the values of Places of Significance to tāngata whenua in the coastal marine area and water bodies are avoided, remedied or mitigated so they are no more than minor.

PRPN Policy D.1.5 Places of significance to tāngata whenua102

For the purposes of this Plan, a place of significance to tāngata whenua:

1) *is in the coastal marine area, or in a water body, where the values which may be impacted are related to any of the following:*
    a) *soil conservation, or*
    b) *quality and quantity of water, or*
    c) *aquatic ecosystems and indigenous biodiversity, and*
2) *is:*
    a) *a historic heritage resource, or*

b) *ancestral land, water, site, wāhi tapu, or other taonga, and*

3) *is either:*

a) *a Site or Area of Significance to tāngata whenua, which is a single resource or set of resources identified, described and contained in a mapped location, or*

b) *a Landscape of Significance to tāngata whenua, which is a collection of related resources identified and described within a mapped area, with the relationship between those component resources identified, 103 and*

4) *has one or more of the following attributes:*

a) *historic associations, which include but are not limited to:*

i. *stories of initial migration, arrival and settlement, or*

ii. *patterns of occupation, including permanent, temporary or seasonal occupation, or*

iii. *the sites of conflicts and the subsequent peace-making and rebuilding of iwi or hapū, or*

iv. *kinship and alliances built between areas and iwi or hapū, often in terms of significant events, or*

v. *alliances to defend against external threats, or*

vi. *recognition of notable tupuna, and sites associated with them, or*

b) *traditional associations, which include but are not limited to:*

i. *resource use, including trading and trading routes between groups (for instance – with minerals such as matā/obsidian), or*

ii. *traditional travel and communication linkages, both on land and sea, or*

iii. *areas of mana moana for fisheries and other rights, or*

iv. *use of landmarks for navigation and location of fisheries grounds, or*

v. *implementation of traditional management measures, such as rāhui or tohatoha (distribution), or*

c) *cultural associations, which include but are not limited to:*

i. *the web of whanaungatanga104 connecting across locations and generations, or*

ii. *the implementation of concepts such as kaitiakitanga and manākitanga, with specific details for each whanau, hapū and iwi, or*

d) *spiritual associations which pervade all environmental and social realities, and include but are not limited to:*

i. *the role of the atua Ranginui and Papatūānuku, 105 and their offspring such as Tangaroa and Tāne, or*

ii. *the recognition of places with connection to the wairua of those with us and those who have passed away, or*

iii. *the need to maintain the mauri of all living things and their environment, and*

5) *must:*

a) *be based on traditions and tikanga, and*

b) *be endorsed for evidential purposes by the relevant tāngata whenua community, and*

c) *record the values of the place for which protection is required, and*

d) record the relationship between the individual sites or resources (landscapes only), and *e) record the tāngata whenua groups determining and endorsing the assessment, and* *f) geographically define the areas where values can be adversely affected.*	
General	
RPS Objective 3.5 Enabling economic wellbeing *Northland's natural and physical resources are sustainably managed in a way that is attractive for business and investment that will improve the economic wellbeing of Northland and its communities.* ***RPS Objective 3.7 Regionally significant infrastructure*** *Recognise and promote the benefits of regionally significant infrastructure, (a physical resource), which through its use of natural and physical resources can significantly enhance Northland's economic, cultural, environmental and social wellbeing.* ***RPS 5.2.2 Policy – Future-proofing infrastructure*** *Encourage the development of infrastructure that is flexible, resilient, and adaptable to the reasonably foreseeable needs of the community.* ***RPS 5.2.3 Policy – Infrastructure, growth and economic development*** *Promote the provision of infrastructure as a means to shape, stimulate and direct opportunities for growth and economic development.* ***RPS 5.3.1 Policy – Identifying regionally significant infrastructure*** *The regional and district councils shall recognise the activities identified in Appendix 3 of this document as being regionally significant infrastructure.* ***RPS 5.3.2 Policy – Benefits of regionally significant infrastructure*** *Particular regard shall be had to the significant social, economic, and cultural benefits of regionally significant infrastructure when considering and determining resource consent applications or notices of requirement for regionally significant infrastructure.* ***RPS 5.3.3 Policy – Managing adverse effects arising from regionally significant infrastructure*** *(1) Allow adverse effects arising from the establishment and operation of new regionally significant infrastructure and the re-consenting of existing operations where:* *(a) The proposal is consistent with Policies 4.4.1(1), 4.4.1(2). 4.6.1(1)(a), 4.6.1(1)(b), 4.6.1(2) and 4.6.2 (1);* *(b) The proposal does not result in established water quality limits or environmental flows and / or levels being exceeded or otherwise could lead to the over-allocation of a catchment (refer to Policy 4.1.1);* *(c) Damage to and / or loss of the relationship of iwi with ancestral sites, sites of significance, wāhi tapu, customary activities and / or taonga is avoided or otherwise agreed to by the affected iwi or hapū; and* *(d) In addition to the matters outlined in 1) (a) – (c) above, other adverse effects are avoided, remedied or mitigated to the extent that they are no more than minor.* *(2) Allow adverse effects arising from the maintenance and upgrading of established regionally significant infrastructure wherever it is located, where:* *(a) The adverse effects whilst the maintenance or upgrading is being undertaken are not significant; and*	The WWTPs and their reticulated networks are regionally significant infrastructure in accordance with (1)(h) of Appendix 3 of the RPS and are also recognised in Schedule 1 of the Civil Defence Emergency Management Act 2002 as lifeline utilities and the activity serves a functional need in terms of the Local Government Act 2002. It is anticipated that the upgrades and maintenance will not result in increased adverse effects during their implementation, and that the resulting effects will be much improved over those prior to the upgrades. The improvements are of such a minor nature that no disruption to the plant's treatment capacity would occur during their implementation. The serviced communities of rely on the WWTPs to treat and dispose of collected wastes in a cost-effective and sustainable manner. The wastewater produced would otherwise need to be managed onsite which can have a number of adverse impacts to the social, cultural, and environmental wellbeing of people, the community, and tangata whenua where they are not monitored or maintained well. The utilities are therefore considered to be critical for the health and wellbeing of the serviced communities and the environment. Adverse environmental effects on water quality, ecosystem health, and the natural character of water can be avoided, remedied, or mitigated subject to compliance with conditions of consent which will include the practical and implementable improvements recommendations. However, the CIAs confirm that the proposals will have more than adverse effects on matters contained in Policy D.1.1. Remediation of some of these effects may be available subject to better treatment performance, regular maintenance, but full mitigation is not available unless there are suitable disposal methods such as a discharge to land. The proposals promote the benefits anticipated through providing for Regionally Significant Infrastructure while avoiding significant adverse effects on certain values while otherwise avoiding, remedying, or mitigating adverse effects on the environment generally. .

(b) *The adverse effects after the conclusion of the maintenance or upgrading are the same or similar to before the activity being undertaken.*

(3) *When managing the adverse effects of regionally significant infrastructure decision makers will give weight to:*

(a) *The benefits of the activity in terms of Policy 5.3.2;*

(b) *...*

(c) *Any constraints that limit the design and location of the activity, including any alternatives that have been considered which have proven to be impractical, or have greater adverse effects;*

(d) *Whether the proposal is for regionally significant infrastructure which is included in Schedule 1 of the Civil Defence Emergency Management Act as a lifeline utility and meets the reasonably foreseeable needs of Northland.*

(e) *The extent to which the adverse effects of the activity can be practicably reduced. Such an assessment shall also take into account appropriate measures, when offered, to provide positive effects, either within the subject site or elsewhere provided that the positive effects accrue to the community of interest and / or resource affected; and*

(f) *Whether a monitoring programme for any identified significant adverse effects with unknown or uncertain outcomes could be included as a condition of consent and an adaptive management regime (including modification to the consented activity) is used to respond to such effects.*

(g) *Whether the infrastructure proposal helps to achieve consolidated development and efficient use of land.*

RPS Methods: 5.2.4, 5.2.5, 5.2.6, 5.3.4, 5.3.5

PRPN Objective F.1.5 Enabling economic well-being[71]

Northland's natural and physical resources are managed in a way that is attractive for business and investment that will improve the economic well-being of Northland and its communities.

[71] Appeal to Environment Court by Royal Forest & Bird Protection Society NZ ENV-2019-AKL-000127

D.2.2 Social, cultural, and economic benefits of activities

Regard must be had to the social, cultural and economic benefits of a proposed activity, recognising significant benefits to local communities, Maori and the region including local employment and enhancing Maori development, particularly in areas of Northland where alternative opportunities are limited.

F.1.6 Regionally significant infrastructure

Recognise the national, regional and local benefits of regionally significant infrastructure and renewable energy generation and enable their effective development, operation, maintenance, repair, upgrading and removal.

D.2.5 Benefits of regionally significant infrastructure

Particular regard must be had to the national, regional and locally significant social, economic, and cultural benefits of regionally significant infrastructure.

D.2.7 Minor adverse effects arising from the establishment and operation of regionally significant infrastructure

Enable the establishment and operation (including reconsenting) of regionally significant infrastructure by allowing any minor adverse effects providing:

1) *The regionally significant infrastructure proposal is consistent with:*

a) *all policies in Section D.1 Tāngata whenua, and*

b) *D.2.16 Managing adverse effects on historic heritage, and*

c) *D.2.17 Managing adverse effects on natural character, outstanding natural landscapes and outstanding natural features, and*

d) *D.2.18 Managing adverse effects on indigenous biodiversity, and*

2) *the regionally significant infrastructure proposal will not likely result in over-allocation having regard to the allocation limits in Policy H.4.3 Allocation limits for rivers, and*

3) *other adverse effects arising from the regionally significant infrastructure are avoided, remedied, mitigated or offset to the extent they are no more than minor.*

D.2.9 Appropriateness of regionally significant infrastructure proposals[63]

When considering the appropriateness of a regionally significant infrastructure activity in circumstances where adverse effects are greater than envisaged in Policies D.2.6 and D.2.7, have regard and give appropriate weight to:

1) *the benefits of the activity in terms of D.2.5, and*

2) *whether the activity must be recognised and provided for by a national policy statement, and*

3) *any demonstrated functional need for the activity, and*

4) *the extent to which any adverse environmental effects have been avoided, remedied or mitigated by route, site or method selection, and*

5) *any operational, technical or location constraints that limit the design and location of the activity, including any alternatives that have been considered which have proven to be impractical, or have greater adverse effects, and*

6) *whether the activity is for regionally significant infrastructure which is included in Schedule 1 of the Civil Defence Emergency Management Act as a lifeline utility and meets the reasonably foreseeable needs of Northland, and*

7) *the extent to which the adverse effects of the activity can be practicably reduced, inclusive of any positive effects and environmental offsets proposed, and*

8) *…*

9) *whether the activity helps to achieve consolidated development and the efficient use of land and resources, including within the coastal marine area.*

[63] Appeal to Environment Court by i) Northpower Limited ENV-2019-AKL-000123
ii) Transpower New Zealand Ltd ENV-2019-AKL-000107

D.2.14 Resource consent duration[64]

When determining the expiry date for a resource consent, have particular regard to:

1) *security of tenure for investment (the larger the investment, then generally the longer the consent duration), and*

2) *the administrative benefits aligning the expiry date with other resource consents for the same activity in the surrounding area or catchment, and*

3) *certainty of effects (the less certain the effects, the shorter the consent duration).*

4) *whether the activity is associated with regionally significant infrastructure (generally longer consent durations for regionally significant infrastructure), and*

Council's officer has recommended consent terms of 20-years for OPO-WWTP and 15-years for KOH-WWTP and I agree with these recommendations.

Financially this is a significant investment for the Applicant and for the area of benefit of each scheme. Resource consents are considered Council assets and the LGA 2002 requires that all assets are depreciated. Under the current rating policy, depreciation is funded by rates from the area of benefit. The value of a resource consent is determined by the capital cost of gaining the initial or previous consent (e.g., the application process) and the rates are set per year of the consent duration. Given this financial policy, the depreciation value of the consent is greater over a shorter-term consent than it would be for a longer-term consent and this will impact rates.

Security of the tenure is imperative for this activity unless and until a suitable alternative treatment and/or discharge option is identified, legalised[1], and commissioned for use.

[1] 'Consented' may not be the appropriate term to use into the future depending on the outcomes of the NBE Bill provisions in relation to public infrastructure.

5) *the following additional matters where the resource consent application is to re-consent an activity:* a) *the applicant's past compliance with the conditions of any previous resource consent or relevant industry guidelines or codes of practice (significant previous non-compliance should generally result in a shorter duration), and* b) *the applicant's voluntary adoption of good management practice (the adoption of good management practices that minimise adverse environmental effects could result in a longer consent duration).* [64] Appeal to Environment Court by i) Mataka Residents Association Inc ENV-2019-AKL-000112 ii) Robinia Investments Ltd ENV-2019-AKL-000115 iii) Paroa Bay Station Ltd ENV-2019-AKL-000112 iv) Royal Forest & Bird Protection Society NZ ENV-2019-AKL-000127	There are two other WWTPs that discharge into the Hokianga Harbour. Kaikohe WWTP is currently undergoing consent replacement, while Rawene WWTP will be lodged this year prior to its expiry. The applications for resource consent for Kaikohe WWTP were sought for 15-year durations given the significant issues with treatment performance at this plant and I note Kohukohu also sought a 15-year consent duration. Past-compliance has been poor for the OPO-WWTP while the KOH-WWTP has had infrequent occurrences of non-compliance with consent conditions usually associated with natural events. I agree with the s.42A reporting officer that, subject to recommended conditions of consent regarding upgrades as proposed, the risk of continued non-compliance is low. The Applicant has adopted recommended upgrade options for both WWTPs which are in line with industry best practise for the treatment of municipal scale wastewater.
Because of the similarities between Policy D.2.14 and Administrative Procedures 13.4 RAQP, 33.6 RCP, and 37.5 RWSP, and the weight that can now be given to the policies of the PRPN, only Policy D.2.14 PRPN has been addressed in this analysis.	
RPS Objective 3.14Natural character, outstanding natural features, outstanding natural landscapes and historic heritage *Identify and protect from inappropriate subdivision, use and development;* *(a) The qualities and characteristics that make up the natural character of the coastal environment, and the natural character of freshwater bodies and their margins;* *(b) The qualities and characteristics that make up outstanding natural features and outstanding natural landscapes;* *(c) …* *RPS 4.6.1 Policy – Managing effects on the characteristics and qualities natural character, natural features and landscapes* *In the coastal environment:* *(a) Avoid adverse effects of subdivision use, and development on the characteristics and qualities which make up the outstanding values of areas of outstanding natural character, outstanding natural features and outstanding natural landscapes.* *(b) Where (a) does not apply, avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of subdivision, use and development on natural character, natural features and natural landscapes. Methods which may achieve this include:* *(i) Ensuring the location, intensity, scale and form of subdivision and built development is appropriate having regard to natural elements, landforms and processes, including vegetation patterns, ridgelines, headlands, peninsulas, dune systems, reefs and freshwater bodies and their margins; and* *(ii) In areas of high natural character, minimising to the extent practicable indigenous vegetation clearance and modification (including earthworks / disturbance, structures, discharges and extraction of water) to natural wetlands, the beds of lakes, rivers and the coastal marine area and their margins; and* *(iii) Encouraging any new subdivision and built development to consolidate within and around existing settlements or where natural character and landscape has already been compromised.* *Outside the coastal environment avoid significant adverse effects and avoid, remedy or mitigate other adverse effects (including cumulative adverse effects) of subdivision, use and development on the characteristics and qualities of outstanding natural features and outstanding natural landscapes and the natural character of freshwater bodies. Methods which may achieve this include:*	As assessed above, there are less than minor adverse effects on both physical and qualitative elements of the character of the Hokianga harbour and Waiarohia River and their margins as a result of the discharges and the presence of the pipeline and associated facilities on the seabed. The Operators were not able to confirm the presence of an observable 'plume' from the OPO-WWTP discharge despite feedback from the community of there being one. Despite this, the proposed improvements to the OPO-WWTP should reduce solids and nutrient concentrations within the effluent and therefore minimise the frequency of a contaminant plume developing in the first place. There may still be an observable difference in colour as a result of the discharge disturbing the seafloor but this shouldn't be a regular occurrence due to the timing of the discharge on the outgoing high tide when harbour water levels are high. Public access to rivers and the coast is a quality that is expected by New Zealanders and is characteristic of their contribution to the health and wellbeing of people and communities. As the main discharges are located in areas accessible to the public, a marker buoy and signage within the vicinity of the discharge is present inform the public of their presence. Therefore, rather than restricting access, this allows people to make informed decisions on where and how they will access and use the harbour environment. The improvements and numerical "end-of-pipe" limits should ensure that the discharge quality is improved and this can have the effect of minimising the the extent of the zone of reasonable mixing which the public should avoid. Lastly, the OPO-WWTP outfall lies on the seabed which does not adversely affect the navigability of the waterbody which is a characteristic expected of a waterbody of this nature. Subject to the proposed consent conditions, the applications are not contrary to the provisions which seek to protect the natural character of the coastal environment, and rivers and their margins, from inappropriate use and development.

(a) *In outstanding natural landscapes, requiring that the location and intensity of subdivision, use and built development is appropriate having regard to, natural elements, landforms and processes, including vegetation patterns, ridgelines and freshwater bodies and their margins;*

(b) *In outstanding natural features, requiring that the scale and intensity of earthworks and built development is appropriate taking into account the scale, form and vulnerability to modification of the feature;*

(c) *Minimising, indigenous vegetation clearance and modification (including earthworks / disturbance and structures) to natural wetlands, the beds of lakes, rivers and their margins.*

When considering whether there are any adverse effects on the characteristics and qualities9 of the natural character, natural features and landscape values in terms of (1)(a), whether there are any significant adverse effects and the scale of any adverse effects in terms of (1)(b) and (2), and in determining the character, intensity and scale of the adverse effects:

(a) *Recognise that a minor or transitory effect may not be an adverse effect;*

(b) *Recognise that many areas contain ongoing use and development that:*

(i) *Were present when the area was identified as high or outstanding or have subsequently been lawfully established*

(ii) *May be dynamic, diverse or seasonal;*

(c) *Recognise that there may be more than minor cumulative adverse effects from minor or transitory adverse effects; and*

(d) *Have regard to any restoration and enhancement on the characteristics and qualities of that area of natural character, natural features and/or natural landscape.*

RPS Methods: 4.6.3, 4.6.4

PRPN Objective F.1.12 Natural character, outstanding natural features, historic heritage and places of significance to tāngata whenua

Protect from inappropriate use and development:

1) *the characteristics, qualities and values that make up:*

a. *outstanding natural features in the coastal marine area and in fresh waterbodies, and*

b. *areas of outstanding and high natural character in the coastal marine area and in fresh waterbodies within the coastal environment, and*

c. *natural character in fresh waterbodies outside the coastal environment, and*

d. *outstanding natural landscapes in the coastal marine area, and*

2) *the integrity of historic heritage in the coastal marine area, and*

3) *the values of places of significance to tāngata whenua in the coastal marine area and freshwater bodies.*

D.2.17 Managing adverse effects on natural character, outstanding natural landscapes and outstanding natural features

Manage the adverse effects of activities on natural character, outstanding natural landscapes and outstanding natural features by:

1) *avoiding adverse effects of activities as follows:*

Table 17: Adverse effects to be avoided

Place / value	Location of the place	Effects to be avoided
Areas of outstanding natural character Outstanding natural features Outstanding natural landscapes	Coastal marine area and fresh water bodies in the coastal environment.	Adverse effects on the characteristics, qualities and values that contribute to make the place outstanding.
Natural character (incl. high natural character) Other natural features and landscapes	The coastal marine area and fresh water bodies in the coastal environment.	Significant adverse effects on the characteristics, qualities and values that contribute to natural character or other natural features and landscapes.
Natural character Outstanding natural features Outstanding natural landscapes	Fresh water bodies outside the coastal environment.	Significant adverse effects on the characteristics, qualities and values that contribute to natural character or which make the natural character or landscape outstanding.

2) *recognising that in relation to natural character in waterbodies (where not identified as outstanding natural character), appropriate methods of avoiding, remedying or mitigating adverse effects may include:*

   a) *ensuring the location, intensity, scale and form of activities is appropriate having regard to natural elements and processes, and*

   b) *…*

3) *…*

4) *recognising that uses and development form part of existing landscapes, features and waterbodies and have existing effects.*

RPS Objective 3.3 Indigenous ecosystems and biodiversity

Safeguard Northland's ecological integrity by:

a) *Protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna;*

b) *Maintaining the extent and diversity of indigenous ecosystems and habitats in the region; and*

c) *Where practicable, enhancing indigenous ecosystems and habitats, particularly where this contributes to the reduction in the overall threat status of regionally and nationally threatened species.*

RPS 4.4.1 Policy – Maintaining and protecting significant ecological areas and habitats

(1) *In the coastal environment, avoid adverse effects, and outside the coastal environment avoid, remedy or mitigate adverse effects of subdivision, use and development so they are no more than minor on:*

   (a) *Indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists;*

   (b) *Areas of indigenous vegetation and habitats of indigenous fauna, that are significant using the assessment criteria in Appendix 5;*

   (c) *Areas set aside for full or partial protection of indigenous biodiversity under other legislation.*

(2) *In the coastal environment, avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of subdivision, use and development on:*

   (a) *Areas of predominantly indigenous vegetation;*

   (b) *Habitats of indigenous species that are important for recreational, commercial, traditional or cultural purposes;*

   (c) *Indigenous ecosystems and habitats that are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass,*

The proposed discharges have been assessed as having less than minor adverse effects on aquatic ecosystems.

The proposed consent conditions contain a range of improvements in the short term as well as "end-of-pipe" numerical limits which should ensure the discharge at least maintains the ecosystem health of the receiving waters.

A discharge to land option was found to be currently economically unfeasible and therefore not appropriate to enter as a condition of consent. This does not presuppose that discharge to land in the future would not be pursued if it were to be economically, practically, and environmentally viable.

The recommended consent durations balance the regional importance of the discharges with the potential for less than minor adverse effects on indigenous aquatic biodiversity.

I therefore consider that the applications are not contrary to the indigenous biodiversity provisions of the RPS or PRPN.

northern wet heathlands, coastal and headwater streams, floodplains, margins of the coastal marine area and freshwater bodies, spawning and nursery areas and saltmarsh.

(3) Outside the coastal environment and where clause (1) does not apply, avoid, remedy or mitigate adverse effects of subdivision, use and development so they are not significant on any of the following:

(a) Areas of predominantly indigenous vegetation;

(b) Habitats of indigenous species that are important for recreational, commercial, traditional or cultural purposes;

(c) Indigenous ecosystems and habitats that are particularly vulnerable to modification, including wetlands, dunelands, northern wet heathlands, headwater streams, floodplains and margins of freshwater bodies, spawning and nursery areas.

(4) For the purposes of clause (1), (2) and (3), when considering whether there are any adverse effects and/or any significant adverse effects:

(a) Recognise that a minor or transitory effect may not be an adverse effect;

(b) Recognise that where the effects are or maybe irreversible, then they are likely to be more than minor;

(c) Recognise that there may be more than minor cumulative effects from minor or transitory effects.

(5) For the purpose of clause (3) if adverse effects cannot be reasonably avoided, remedied or mitigated then it maybe appropriate to consider the next steps in the mitigation hierarchy i.e. biodiversity offsetting followed by environmental biodiversity compensation, as methods to achieve Objective 3.4

Objective F.1.3 Indigenous ecosystems and biodiversity

In the coastal marine area and in fresh waterbodies, safeguard ecological integrity by:

1) protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna, and

2) maintaining regional indigenous biodiversity, and

3) where practicable, enhancing and restoring indigenous ecosystems and habitats to a healthy functioning state, and reducing the overall threat status of regionally and nationally Threatened or At Risk species, and preventing the introduction of new marine or freshwater pests into Northland and slowing the spread of established marine or freshwater pests within the region.

RPS Methods: 4.4.3, 4.4.4, 4.4.6

D.2.18 Managing adverse effects on indigenous biodiversity

Manage the adverse effects of activities on indigenous biodiversity by:

1) in the coastal environment:

a) avoiding adverse effects on:

i. indigenous taxa that are listed as Threatened or At Risk in the New Zealand Threat Classification System lists, and

ii. the values and characteristics of areas of indigenous vegetation and habitats of indigenous fauna that are assessed as significant using the assessment criteria in Appendix 5 of the Regional Policy Statement, and

iii. areas set aside for full or partial protection of indigenous biodiversity under other legislation, and

b) avoiding significant adverse effects and avoiding, remedying or mitigating other adverse effects on:

i. areas of predominantly indigenous vegetation, and

ii. *habitats of indigenous species that are important for recreational, commercial, traditional or cultural purposes, and* iii. *indigenous ecosystems and habitats that are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, intertidal zones, rocky reef systems, eelgrass, northern wet heathlands, coastal and headwater streams, spawning and nursery areas and saltmarsh, and* … 3) *recognising areas of significant indigenous vegetation and significant habitats of indigenous fauna include:* a) *Significant Ecological Areas, and* b) *Significant Bird Areas, and* c) *Significant Marine Mammal and Seabird Areas, and* 4) *recognising damage, disturbance or loss to the following as being potential adverse effects:* a) *connections between areas of indigenous biodiversity, and* b) *the life-supporting capacity of the area of indigenous biodiversity, and* c) *flora and fauna that are supported by the area of indigenous biodiversity, and* d) *natural processes or systems that contribute to the area of indigenous biodiversity, and* 5) *assessing the potential adverse effects of the activity on identified values of indigenous biodiversity, including by:* a) *taking a system-wide approach to large areas of indigenous biodiversity such as whole estuaries or widespread bird and marine mammal habitats, recognising that the scale of the effect of an activity is proportional to the size and sensitivity of the area of indigenous biodiversity, and* b) *recognising that existing activities may be having existing acceptable effects, and* c) *recognising that minor or transitory effects may not be an adverse effect, and* d) *recognising that where effects may be irreversible, then they are likely to be more than minor, and* e) *recognising that there may be more than minor cumulative effects from minor or transitory effects, and* 6) *recognising that appropriate methods of avoiding, remedying or mitigating adverse effects may include:* a) *careful design, scale and location proposed in relation to areas of indigenous biodiversity, and…*	
D.2.20 Precautionary approach to managing effects on significant indigenous biodiversity and the coastal environment *That decision makers adopt a precautionary approach where the adverse effects of proposed activities are uncertain, unknown or little understood, on:* 1) *indigenous biodiversity, including significant ecological areas, significant bird areas and other areas that are assessed as significant under the criteria in Appendix 5 of the Regional Policy Statement; and* 2) *the coastal environment where the adverse effects are potentially significantly adverse, particularly in relation to coastal resources vulnerable to the effects of climate change.*	
Air	
F.1.13 Air quality *Human health, ambient air quality, cultural values, amenity values and the environment are protected from significant adverse effects caused by the discharge of contaminants to air.*	Information on the effects of odour is obtainable from information gathered through complaints and Council Officer investigations.

D.3.1 General approach to managing air quality

When considering resource consent applications for discharges to air:

1) *ensure that discharges of contaminants to air do not occur in a manner that causes, or is likely to cause, a hazardous, noxious, dangerous or toxic effect on human or animal health or ecosystems, and*
2) *…*
3) *…*
4) *…*
5) *…*
6) *take into account the cumulative effects of air discharges and any constraints that may occur from the granting of the consent on the operation of existing activities, and*
7) *recognise that discharges to air may have adverse effects across the property boundary (including reverse sensitivity effects) and adverse effects on natural character, and*
8) *take into account the current environment and surrounding zoning in the relevant district plan including existing amenity values, and*
9) *consider the following factors when determining consent duration:*
    a) *scale of the discharge including effects, and*
    b) *regional and local benefits arising from the discharge, and*
    c) *location of the discharge including its proximity to sensitive areas, and*
    d) *alternatives available, and*
10) *use national guidance produced by the Ministry for the Environment, including:*
    a) *the Good Practice Guide for Assessing and Managing Odour (Ministry of the Environment, 2016), and*
    b) *…*
11) *generally enable discharges of contaminants to air from industrial and trade premises provided the best practicable option for preventing or minimising the adverse effects of the discharge is adopted and significant adverse effects on human health, amenity values and ecosystems are avoided.*

D.3.2 General approach to managing adverse effects of discharges to air

1) *Adverse effects from the discharge of contaminants to air are managed by:*
2) *avoiding, remedying, or mitigating cross-boundary effects on dust, odour, smoke and spray-sensitive areas from discharges of dust, smoke, agricultural spray drift and odour; and*
3) *protecting dust, odour, smoke and spray-sensitive areas from exposure to dangerous or noxious levels of gases or airborne contaminants; and*
4) *recognising that land use change can result in reverse sensitivity effects on existing discharges to air, but existing discharges should be allowed to continue where appropriate.*

D.3.4 Dust and odour generating activities

When considering resource consent applications for discharges to air from dust or odour generating activities:

1) *require a dust or odour management plan to be produced where there is a likelihood that there will be objectionable or offensive discharges of dust or odour at the boundary of the site where the activity is to take place, or where the activity is likely to cause a breach of the ambient air quality standard for PM10 in Schedule 1 of the National Environmental Standard for Air Quality. The dust or odour management plan must include:*
    a) *a description of dust or odour generating activities, and*
    b) *potentially affected dust sensitive areas or odour sensitive areas, and*

Aside from the KOH-CIA and submissions, no complaints of odour have been received by NRC or the Applicant for either of the WWTP.

Subject to optimal plant performance and undertaking of planned maintenance, it is expected that Objective F.1.13 of the PRPN is met.

c) *details of good management practices that will be used to control dust or odour to the extent that adverse effects from dust or odour at the boundary of the site are avoided, remedied or mitigated, and* 2) *take into account any proposed use of low dust generating blasting mediums when assessing the effects of fixed or mobile outdoor dry abrasive blasting or wet abrasive blasting.* *Note: Policy D.3.4 does not apply to odour associated with the controlled discharge of gas containing an odorant (such as mercaptan) from pipelines and ancillary equipment.*	
Land and Water	
RPS Objective 3.1 Integrated catchment management *Integrate the management of freshwater and the subdivision, use and development of land in catchments to enable catchment-specific objectives for fresh and associated coastal water to be met.* ***RPS Objective 3.2 Region-wide water quality*** *Improve the overall quality of Northland's fresh and coastal water with a particular focus on:* a) … b) *Increasing the overall Macroinvertebrate Community Index status of the region's rivers and streams;* c) … d) *Improving microbiological water quality at popular contact recreation sites, recreational and cultural shellfish gathering sites, and commercial shellfish growing areas to minimise risk to human health; and* ***RPS 4.1.1 Policy – Catchment-specific objectives and limits*** *Collaboratively:* a) *Identify the values of water in catchments and receiving estuaries and harbours;* b) *Provide for these values by establishing catchment-specific objectives and set water quality limits and environmental flows and / or levels, and where necessary targets; and* ***RPS 4.2.1 Policy - Improving overall water quality*** *Improve the overall quality of Northland's water resources by:* a) *Establishing freshwater objectives and setting region-wide water quality limits in regional plans that give effect to Objective 3.2 of this regional policy statement.* b) *Reducing loads of sediment, nutrients, and faecal matter to water from the use and development of land and from poorly treated and untreated discharges of wastewater; and* c) *Promoting and supporting the active management, enhancement and creation of vegetated riparian margins and wetlands.* **RPS Methods 4.1.2, 4.1.3, 4.2.2, 4.2.3, 4.2.4, 4.4.3** ***PRPN Objective F.1.2: Water quality*** *Manage the use of land and discharges of contaminants to land and water so that:*	While there is coastal water quality monitoring available, I have not viewed any information which would unequivocally confirm that Water Quality Objectives (WQO, 'Estuaries' and 'Small Rivers') as stated in Appendix H.3 are being met. This is because the monitoring that has taken place in the Hokianga harbour has not been for the purpose of auditing performance against the WQOs because of their recent addition to the PRPN-2022 and so cannot be used to confirm compliance. While I do not consider there to be suitable monitoring to make statements of absolute compliance with WQOs, I do consider that there is sufficient information in the AEEs, responses to requests for further information, and the evidence of Dr. Dada and Dr. Macdonald to be able to deduce whether there is a risk of exceeding the WQOs as a result of the proposed discharges. Recreational bathing water quality is monitored by NRC at Omapere (Pioneer Walk), Opononi (Hokianga Harbour) and Rawene (Past Ramp). The OPO-AEE[2] concluded that water quality has degraded (in terms of e.coli concentrations) since 2017, with a number of elevated samples having been recorded at these sites. A number of exceedances appear to be linked with rainfall events, suggesting these exceedances are most likely linked with catchment runoff. Dr. Dada, in his evidence supports this conclusion in his analysis. Jacobs[3] advises that; i) Phosphorus is not normally a concern in coastal waters as nitrogen is almost always the limiting nutrient[4]. ii) Based on the Estuary Trophic Index (ETI) toolbox[5] the Hokianga Harbour has a low physical susceptibly to nitrogen impacts and experiences minor stress from catchment nitrogen loads. iii) ammonia is a toxicant to shellfish and fish species. I consider that the quality of fresh and coastal water can at least be maintained while continuing to discharge treated wastewater to the Hokianga Harbour subject to the proposed conditions of consent at Appendix D to this evidence. The upgrades proposed in both instances will improve the quality of the discharges over the term of the consents to reduce the contribution that these discharges have with respect to the WQOs in Appendix H.3 PRPN-2022.

[2] At Pages 37-38.

[3] At Page 22 of Jacobs-OPO and Page 19 of Jacobs-KOH.

[4] NIWA (2018) Assessment of the eutrophication susceptibility of New Zealand Estuaries

[5] NIWA (2018) Assessment of the eutrophication susceptibility of New Zealand Estuaries

1) *existing water quality is at least maintained, and improved where it has been degraded below the river or lake water quality standards set out in H.3 Water quality standards and guidelines, and* 2) *…, and* 3) *the life-supporting capacity, ecosystem processes and indigenous species, including their associated ecosystems, of fresh and coastal water are safeguarded, and the health of freshwater ecosystems is maintained, and* 4) *the health of people and communities, as affected by contact with fresh and coastal water, is safeguarded, and* 5) *…, and* 6) *the quality of potable drinking water sources, including aquifers used for potable supplies, is protected, and* 7) *the significant values of outstanding freshwater bodies and natural wetlands are protected, and* 8) *kai is safe to harvest and eat, and recreational, amenity and other social and cultural values are provided for.* ***D.4.1 Maintaining overall water quality*** *When considering an application for a resource consent to discharge a contaminant into water:* *1) ensure that the quality of fresh and coastal water is at least maintained, and* *2) where a water quality standard in Appendix H.3 is currently met:* *a. ensure that the quality of water in a river, lake or the coastal marine area will continue to meet the standards in Appendix H.3; and* *b. consider whether any improvements to water quality are required in order to achieve Objective F.1.2* *3) …;* *4) where a water quality standard in Appendix H.3 is currently exceeded and the exceedance of the water quality standard is caused or contributed to by an existing activity for which a replacement resource consent is being considered, ensure any replacement resource consent granted for the existing discharge includes a condition(s) that:* *a) requires the quality of the discharge to be improved over the term of the consent to reduce the contribution of the discharge to the exceedance of the water quality standard in Appendix H.3; and* *b) sets out a series of time bound steps, demonstrating how the activity will be managed to achieve the water quality improvements required by (4)(a).* *5) ensure that the discharge will not cause an acute toxic adverse effect within the zone of reasonable mixing.* *6) where a discharge will, or is likely to, cause or contribute to:* *a) an exceedance of the coastal sediment quality guidelines in Appendix H.3.4, or* *b) a transitory exceedance of the toxicants, metals and metalloids standard in Table 22, and the activity is associated with the establishment, operation, maintenance or upgrade of regionally significant infrastructure, determine whether higher levels of contaminants in the particular location affected by the discharge can be provided for while still achieving Objective F.1.2, and set appropriate levels of contaminants in accordance with best practice methodology to safeguard the ecosystem values present at the location affected by the discharge; and*	The Hokianga harbour is an 'Estuarine' Coastal Water Quality Management Unit indicating its susceptibility as a 'sediment trap'[6] with presence of metals and/or inorganic compounds. No technical evidence has been prepared with respect to the presence of these contaminants in either the wastewater discharges or the receiving environment. However, the OPO-AEE states that, *"[H]eavy metal concentrations in the influent are likely to be very low because of the high proportions of domestic sources within the area and very little industrial contribution",* and I would agree with this generalisation as it is consistent with much of the peer reviewed New Zealand literature[7] available on the subject. There is information available on the existing quality of the Hokianga harbour and Waiarohia Stream while current consent monitoring provides a good record of the discharge quality to proceed on the basis of conditions of consent. Regarding Policy D.4.3 PRPN-2022, a discharge to land has been considered for both WWTPs but in both instances the option was not economically or practically feasible to implement. The proposed treatment methods alongside the proposed upgrades are in accordance with good management practices. Regarding Policy D.4.4 PRPN-2022, Dr Beamsley provides analysis that dilution of high magnitudes occur at the points of discharge and explains his opinion as to the zone of reasonable mixing. Subject to the proposed conditions, the assessment above confirms that the nature and scale of the discharges would not in themselves result in an exceedance of required water quality in the receiving waters and furthermore, in accumulation with catchment inputs, would at least maintain the quality of fresh and coastal receiving waters. The Proposal is therefore not contrary to the water quality provisions of the RPS and PRPN.

[6] Dalrymple, R. W., Zaitlin, B. A., & Boyd, R. (1992). Estuarine facies models; conceptual basis and stratigraphic implications. *Journal of Sedimentary Research*, *62*(6), 1130-1146.

[7] Sharley, D. J., Sharp, S. M., Bourgues, S., & Pettigrove, V. J. (2016). Detecting long-term temporal trends in sediment-bound trace metals from urbanised catchments. *Environmental Pollution*, *219*, 705-713; and Sharley, D. J., Sharp, S. M., Marshall, S., Jeppe, K., & Pettigrove, V. J. (2017). Linking urban land use to pollutants in constructed wetlands: Implications for stormwater and urban planning. *Landscape and Urban Planning*, *162*, 80-91.

7) *where existing water quality is unknown, or the effect of a discharge on water quality is unknown, the activity must be managed using a precautionary approach, which may include adaptive management.* ***D.4.3 Municipal, domestic and production land wastewater discharges*** *An application for resource consent to discharge municipal, domestic, horticultural or farm wastewater to water will generally not be granted unless:* 1) *the storage, treatment and discharge of the wastewater is done in accordance with recognised industry good management practices, and* 2) *a discharge to land has been considered and found not to be environmentally, economically or practicably viable.* ***D.4.4 Zone of reasonable mixing*** *When determining what constitutes the zone of reasonable mixing for a discharge of a contaminant into water, or onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of a natural process from that contaminant) entering water, have regard to:* 1) *using the smallest zone necessary to achieve the required water quality in the receiving waters as determined under Policy D.4.1, and* 2) *ensuring that within the mixing zone contaminant concentrations and levels of dissolved oxygen will not cause acute toxicity effects on aquatic ecosystems.* ***Note:*** *See also the definition of zone of reasonable mixing.*	
Natural Hazards	
F.1.10 Natural hazard risk *The risks and impacts of natural hazard events (including the influence of climate change) on people, communities, property, natural systems, infrastructure and the regional economy are minimised by:* 1) *increasing the understanding of natural hazards, including the potential influence of climate change on natural hazard events and the potential impacts on coastal biodiversity values, and* 2) *becoming better prepared for the consequences of natural hazard events, and* 3) *avoiding inappropriate new development in 100-year flood hazard areas and coastal hazard areas, and* 4) *not compromising the effectiveness of existing natural and man-made defences against natural hazards, and* 5) *enabling appropriate hazard mitigation measures to be implemented to protect existing vulnerable development, and* 6) *promoting long-term strategies that reduce the risk of natural hazards impacting on people, communities and natural systems, and* 7) *recognising that in justified circumstances, critical infrastructure may have to be located in natural hazard-prone areas, and* 8) *anticipating and providing for, where practicable, landward migration of coastal biodiversity values affected by sea-level rise and natural hazard events.* ***D.6.5 Flood hazard management – development within floodplains*** *Development in flood hazard areas and continually or intermittently flowing rivers (including high-risk flood hazard areas) must not increase the risk of adverse effects from flood hazards on other property or another person's use of land or property.*	The evidence of Dr Macdonald confirms that the WWTPs are suitably provided for in terms of the probabilities of risk of natural hazards likely to affect the WWTPs
F.1.8 Use and development in the coastal marine area	I agree with the s42A reporting officers conclusions that the pipeline is an existing feature in the harbour and has less minor impact on the space it occupies.

Use and development in the coastal marine area: *1) makes efficient use of space occupied in the common marine and coastal area, and* *2) is of a scale, density and design compatible with its location, and* *3) recognises the need to maintain and enhance public open space and recreational opportunities, and* *4) is provided for in appropriate places and forms, and within appropriate limits.* *5) is undertaken in a way that recognises it can have effects outside of the coastal marine area.*	

APPENDIX D

FAR NORTH DISTRICT COUNCIL

To undertake the following activities associated with the operation of the Opononi Wastewater Treatment Plant on Part Taumatawiwi Survey Office Plan 405122 (aeration and detention ponds), Section 1 Survey Office 405122 (clean water tank), Part River Bed (part-of constructed wetland over the bed of the Waiarohia Stream), and Lot 1 Deposited Plan 167208 (majority of constructed wetlands).~~Lot 1 DP 110735 and Lot 1 DP 167208 Blk VII Hokianga servicing the townships of Ōmāpere and Opononi, as defined by the Operative Far North District Council Plan, and all existing connections to this system that are outside these townships, as at the date of commencement of these consents~~:

Note: All location co-ordinates in this document refer to Geodetic Datum 2000, New Zealand Transverse Mercator Projection.

AUT.002667.01.04	**To discharge treated wastewater into the coastal marine area of the Hokianga Harbour, at or about location co-ordinates 1634768E 6069462N.**
AUT.002667.02.03	**To discharge treated wastewater to land (seepage) from the base of a wastewater treatment system, at or about location co-ordinates 1635620E 6069420N and 1635800E 6069350N.**
AUT.002667.03.03	**To discharge contaminants (primarily odour) to air from the operation of the wastewater treatment system, at or about location co-ordinates 1635620E 6069420N and 1635800E 6069350N.**
AUT.0022667.04.02	**To occupy the bed of the coastal marine area of the Hokianga Harbour with an existing wastewater discharge pipeline structure.**

Subject to the following conditions:

General Conditions

1 The Consent Holder must maintain the treatment system so that it operates effectively at all times and a written record of all maintenance undertaken must be kept. A copy of this record must be forwarded to Northland Regional Council's assigned monitoring officer immediately upon request.

2 The Consent Holder must monitor the exercise of these consents in accordance with Schedule 1 (**attached**). The results of monitoring carried out for each calendar month in accordance with Schedule 1 must be forwarded to Northland Regional Council's assigned monitoring officer by the 15th of the following month, and also immediately on written request. This information must be in an electronic format that has been agreed to by the Northland Regional Council.

3 If any monitoring results show that any of the following determinants in the treated wastewater are exceeded, as measured at Northland Regional Council Sampling Site 101580 (final outlet from the treatment plant prior to the discharge pipeline)

~~Determinant~~	~~Median Concentration~~	~~90TH Percentile Concentration~~
~~5 day Biochemical Oxygen Demand (grams per cubic metre)~~	~~20~~	~~35~~
~~Escherichia Coli (per 100 millilitres)~~	~~3,000~~	~~5,500~~
~~Total ammoniacal nitrogen (grams per cubic metres)~~	~~30~~	~~38~~
~~Total suspended solids (grams per cubic metre)~~	~~35~~	~~80~~

Determinant	Median Concentration	90th Percentile Concentration
5 day Biochemical Oxygen Demand (grams per cubic metre)	20	**35**
Escherichia Coli (per 100 millilitres)	4,400	**24,000**
Total ammoniacal nitrogen (grams per cubic metres)	30	**43**
Total suspended solids (grams per cubic metre)	**35**	**80**

the Consent Holder must, within one month of becoming aware of any exceedance, forward to the Northland Regional Council's Compliance Monitoring Manager a written report that provides the following:

(a) Reasons for the exceedance; and

(b) What actions are intended to be undertaken by the Consent Holder to correct the exceedances and timeframes for implementation of actions.

This condition ceases to have effect once the wastewater treatment plant has been upgraded in accordance with Condition 17.

4 To prevent damage to the wastewater treatment systemm~~m~~, ~~no stock shall be allowed~~the Consent Holder must install and maintain a reasonable stock-proof fence to prevent stock from ~~to~~ entering ~~any~~ area that is utilised for the treatment of wastewater.

~~5 The Consent Holder must maintain a Community Liaison Group, consisting of representatives from:~~

~~(a) Te Rūnanga o Te Rarawa;~~

~~(b) Nga Marae O Te Wahapū; and~~

~~(c) Ōmāpere and Opononi Communities (duly appointed).~~

~~The Community Liaison Group must also include a representative(s) of the Consent Holder.~~

~~6 The purpose of the Community Liaison Group is to provide a forum to:~~

~~(a) Share and discuss information on the performance of the wastewater treatment plant and monitoring of the Hokianga Harbour;~~

~~(b) Discuss and make recommendations on upgrades to the wastewater treatment plant and opportunities to improve the quality of the wastewater discharge; and~~

(c) Address any other matters relating to the wastewater treatment plant as identified by the Group.

7 The Consent Holder must:

(a) Hold regular meetings (at least annually) for the duration of the Consent, unless representatives from Te Rūnanga o Te Rarawa, Nga Marae O Te Wahapū or from the Ōmāpere or Opononi communities in the Community Liaison Group request a different schedule; and

(b) Prepare an agenda for each meeting and prepare minutes recording actions. A copy of the minutes must be provided to the members of the group within a reasonable period following a meeting.

~~8 The Consent Holder, or its authorised agent, must invite and allow representative(s) of a Community Liaison Group formed under Condition 5 to attend monitoring of the wastewater discharge.~~

~~9~~5 The Consent Holder must, for the purpose of adequately monitoring these consents as required under Section 35 of the Act, on becoming aware of any contaminant associated with the Consent Holder's operations escaping otherwise than in conformity with these consents:

(a) Take immediate action to stop and/or contain such escape;

(b) Immediately notify the Northland Regional Council by telephone of an escape contaminant;

(c) Take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

(d) Notify the Northland Regional Council in writing within one week on the cause of the escape of the contaminant and the steps taken or being taken to effectively control or prevent such escapes.

For telephone notification during the Northland Regional Council's opening hours (8:00 am to 5:00 pm), the Northland Regional Council's assigned Monitoring Officer for these consents must be contacted. If that person cannot be spoken to directly, or it is outside of the Northland Regional Council's opening hours, then the Environmental Hotline must be contacted.

~~10~~6 The Council may, in accordance with Section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions annually during the month of May for any one or more of the following purposes:

(a) To deal with any adverse effects on the environment that may arise from the exercise of the consents and which it is appropriate to deal with at a later stage, or

(b) To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.

The Consent Holder must meet all reasonable costs of any such review.

AUT.002667.01 and AUT.002667.02 – Discharges to Coastal Water and Land

~~11~~7 The ~~quantity of treated wastewater discharged to the Hokianga Harbour shall not exceed 450 cubic metres per day~~peak 30-day rolling average dry weather flow (ADWF) of treated wastewater discharged the Hokianga Harbour shall not exceed 420 cubic meters per day.

~~12~~8 Notwithstanding Condition 11, the Consent Holder shall minimise, as far as practicable, any increase in the quantity of wastewater discharged to the Hokianga Harbour as a result of stormwater inflow and infiltration into the sewage reticulation network and treatment system. This shall include the prevention, as far as practicable, of stormwater run-off from the surrounding land entering the treatment system. For compliance purposes, the Consent Holder shall record the daily wastewater inflow volume to the treatment plant.

~~13~~9 The Consent Holder shall maintain a meter on both the inlet to, and the outlet from, the treatment system that has a measurement error of +/- 5% or less. These meters must be used to determine compliance with Conditions 11 and 12.

~~14~~10 The Consent Holder shall re-calibrate the meters required by Condition 13 at least annually to ensure the specified accuracy is maintained. Written verification from a suitably qualified person that the meter has been calibrated during the previous 12 month period shall be forwarded to the Northland Regional Council's assigned monitoring officer by 1 May each year.

~~15~~11 Treated wastewater shall only be discharged to the Hokianga Harbour for a maximum of three hours each tidal cycle between one hour and four hours after high tide via the discharge pipeline from the treatment system.

~~16~~12 The Consent Holder shall calibrate the tidal clock used to control the time of the discharge to the Hokianga Harbour at least annually to ensure that the programmed high tide discharge time is, as far as practicable, the same as when high tide actually occurs at the site. Written verification from a suitably qualified person that this calibration has been undertaken during the previous 12 month period shall be forwarded to the Northland Regional Council's assigned monitoring officer by 1 May each year.

~~17~~13 The Consent Holder must, within ~~three~~ six years of the date of commencement of these consents, upgrade the wastewater treatment plant so that all wastewater receives treatment within a fully commissioned and operating treatment process specifically designed to reduce the concentration of E.coli, total suspended solids and total ammoniacal nitrogen. These upgrade works shall include, but are not limited to, the following:

(a) Implementing chemically assisted solids removal;

(b) Installing UV disinfection treatment; and

(c) Installing an external ammonia removal package plant.

~~18~~14 The Consent Holder must provide an annual update to Northland's Regional Council's assigned monitoring officer by 1 May each year regarding the progress of the planned upgrades to the wastewater treatment system.

~~19~~15 Once the plant is upgraded, as required by Condition 17, the quality of the treated wastewater, as measured at NRC Sampling Site 101580 must meet the following standards:

Determinant	~~**Maximum Concentration**~~**90th Percentile**
Escherichia Coli (per 100 millilitres)	3,000
Total suspended solids (grams per cubic metre)	35
Total ammoniacal nitrogen (grams per cubic metres)	30

~~20~~16 The Consent Holder shall ensure safe and easy access to the final outlet from the treatment plant prior to the discharge pipeline (Northland Regional Council sampling site 101580), so that treated wastewater samples can be collected.

~~21~~17 There shall be no discharge of contaminants onto or into land, or into water, from any part of the treatment system except via seepage from the base of the treatment system and the designated outlet pipe from the treatment system into the Hokianga Harbour.

~~22~~18 The discharge of contaminants to land via seepage from the base of the treatment system shall not result in any adverse effects on the water quality of the Waiarohia Stream, as measured immediately downstream of either the treatment ponds or the constructed wetland system. For compliance purposes the downstream water quality shall be compared with the water quality immediately upstream of the constructed wetland system. The error of the analytical method and measuring instrument at the 95th percentile confidence level shall be included in determining all parameters.

~~23~~19 Notwithstanding any other conditions, the discharge of any contaminant (either by itself or in combination with the same, similar or other contaminants or water) shall not result in any of the following effects in the water quality of the Hokianga Harbour, as measured at any point at, or down-current of, where the treated wastewater first contacts the surface of the Hokianga Harbour:

(a) The production of conspicuous oil or grease films, scums or foams, floatable or suspended materials;

(b) Any conspicuous change in the colour or visual clarity;

(c) Any emissions of objectionable odour;

(d) Any significant adverse effects on aquatic life; and

(e) No more than minor adverse change in either the Escherichia coliform or Entercocci concentration.

For compliance purposes, the down-current water quality shall be compared to the background water quality of the Hokianga Harbour at an up-current site that is not affected by this discharge of the above parameters. The error of the analytical methods and measuring instrument at the 95th percentile confidence level shall be included in determining all parameters.

AUT.002667.03 – Discharge to Air

~~24~~20 The exercise of this consent must not result in the discharge of contaminants which are deemed by a Monitoring Officer of the Northland Regional Council to be noxious, dangerous, offensive or objectionable at or beyond the boundary of the area legally occupied by the wastewater treatment plant.

AUT.002667.04 – Discharge Pipeline Structure

~~25~~21 This consent only authorises use of the existing structure as installed at the date of commencement of this consent.

22 The pipeline shall

(a) remain buried at all times ~~and~~

(b) ~~the~~ maintain structural integrity ~~of the pipeline shall be maintained~~ at all times.;

(c) be identifiable at the surface of the water by a permanent marker buoy.

~~26~~

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Advice Note: Should the marker buoy become unfixed from its position, it shall be reinstated as soon as is practicable and safe to do so.

~~27~~23 The Consent Holder shall undertake inspections of the bed of the Hokianga Harbour where the pipeline is installed and also the outlet of the pipeline at least once every two years. ~~The Consent Holder shall give the representatives of the Community Liaison Group as required by Condition 5 at least seven days notice of the proposed inspection of the pipeline.~~ A written report on the results of the inspection shall be forwarded to the Northland Regional Council's assigned monitoring officer ~~and the representatives of the Community Liaison Group~~ by 1 May every two years from the date of commencement of this consent.

EXPIRY DATE: **31 AUGUST 2039**

SCHEDULE 1

The Consent Holder shall undertake the following monitoring:

1 Wastewater volumes

The Consent Holder shall keep a written record of both the daily, midday to midday, inflow volumes to the treatment system and the wastewater discharge volume using the meters required by Condition 13 of this Consent.

2 Treated wastewater

The following sampling and analyses shall be undertaken on at least one occasion each calendar month. During the winter months, the sampling shall be undertaken during, or immediately after, a rain event on at least three occasions.

A wastewater sample shall be collected from the final outlet of the treatment system, prior to it entering the discharge pipeline(Northland Regional Council Sampling Site 101580).

Temperature, pH and dissolved oxygen concentration shall be recorded in the wastewater sample using an appropriate meter, and in accordance with standard procedures.

3 Waiarohia Stream

On a quarterly basis, a sample of water shall be collected from the Waiarohia Stream at Northland Regional Council Sampling Sites:

- 101579: Waiarohia Stream upstream of treatment plant, approximate location coordinates 1635907E 6069331N; and
- 100756: Waiarohia Stream downstream of treatment plant, approximate location coordinates 1635728E 6069372N.

These water samples shall then be analysed for Escherichia coli concentration.

The upstream and downstream Escherichia coli concentration shall be compared after sampling occasion to determine whether there is any adverse effect on the water quality of the Waiarohia Stream as a result of the discharge of contaminants to land via seepage from the base of the constructed wetland system.

~~This monitoring shall cease after a two year period if the results show that the discharge of contaminants to land via seepage from the base of the constructed wetland system is not having an adverse effect on the water quality of the Waiarohia Stream.~~

4 Compliance with Median and 90th Percentiles

Median Value

The median value for the determinants listed shall be a “rolling” median calculated on the 12 most recent treated wastewater samples collected

90TH Percentile Value

The 90th percentile value shall be calculated annually for the period 1 May to 30 April using, as a minimum, the results from the monthly sampling required by Section 2.

Compliance with the median and 90th percentile cease once the plant has been upgraded.

5 Collection of Samples

All samples shall be collected using standard procedures and in appropriate laboratory supplied containers.

All samples collected as part of this monitoring programme shall be transported in accordance with standard procedures and under chain of custody to the laboratory.

All samples taken shall be analysed at a laboratory with registered quality assurance procedures, and all analyses are to be undertaken using standard methods, where applicable.

6 Non-compliance with Consent Conditions

The Consent Holder shall notify the Regional Council of any non-compliance of the "rolling median" or any adverse effects on the water quality of the Waiarohia Stream, immediately after the results of the monitoring required by Sections 2 and 3 are known.

If the Consent Holder detects any noxious, dangerous, offensive or objectionable odours at the legal boundary of the treatment system, then Northland Regional Council should be notified immediately.

FAR NORTH DISTRICT COUNCIL

To undertake the following activities associated with the operation of the Kohukohu Wastewater Treatment Plant on P~~T~~art Section 86 Block X Mangamuka Survey District~~, at or about location co-ordinates 1648970E 6085775N~~:

Note: All location co-ordinates in this document refer to Geodetic Datum 2000, New Zealand Transverse Mercator Projection.

AUT.003839.01.03 **To discharge treated wastewater into the coastal marine area of the Hokianga Harbour.**

AUT.003839.02.03 **To discharge treated wastewater to land (seepage) from the base of a wastewater treatment system.**

AUT.003839.03.03 **To discharge contaminants (primarily odour) to air from the operation of the wastewater treatment system.**

Subject to the following conditions:

General Conditions

1 The Consent Holder must maintain the treatment system so that it operates effectively at all times and a written record of all maintenance undertaken must be kept. A copy of this record must be forwarded to Northland Regional Council's assigned monitoring officer immediately upon written request.

2 The Consent Holder must monitor the exercise of these consents in accordance with Schedule 1 (**attached**).

3 The results of any monitoring carried out in accordance with Schedule 1 and/or Schedule 2 shall be forwarded to Northland Regional Council's assigned monitoring officer within one month of each monitoring visit.

4 The Consent Holder must maintain a Site Management Plan that covers all operation and maintenance of the Kohukohu Wastewater Treatment System. The Site Management Plan shall cover, but not be restricted to, the operation and maintenance of:

(a) All septic tanks that contribute to the wastewater volume;

(b) The ~~oxidation~~ facultative pond, including mitigation measures to deal with low concentrations of dissolved oxygen~~ e.g. temporary mechanical surface aeration~~;

(c) The surface flow wetland. This section should include a programme that covers how the Consent Holder will maintain the vegetation cover that is established around the constructed wetland. It should also include measures to prevent the re-establishment of pampas grass on any of the embankments around and within the wetland.

(d) Contingency measures for unforeseen or emergency situations.

5 The Consent Holder must, within three months of the date of commencement of this consent and then on at least a three yearly basis thereafter, complete a review of the Site Management Plan. The purpose of the review is to identify, evaluate and determine improvements to the operation and maintenance of the treatment plant and discharge to better ensure good plant performance and compliance with conditions of these consents. The Site Management Plan must be revised to address any findings from the review.

6 A written copy of the review's findings and a revised Site Management Plan must be provided to the Northland Regional Council' assigned monitoring officer and the Kaitiaki Liaison Group on completion of the review.

7 The Consent Holder must, as a minimum, operate and manage the wastewater treatment plan in accordance with the most recent reviewed version of the Site Management Plan required by Condition 4.

8 Within six months of the commencement date of these consents, the Consent Holder must commission a suitably qualified and experienced person to prepare a Septage Management Plan to demonstrate how the septic tanks that are a part of the common effluent drainage service (CEDS) are to be operated and maintained. The Septage Management Plan must, at minimum, contain the following information:

(a) A suitable record of each individual tank connected to the CEDS that contains, at minimum, the following information:

i. Location details (i.e. GPS coordinates)~~, and sketch plan~~ of the septic tank on each property

ii. Basic property information (legal description, address)

iii. Contact information for the property owner

~~iv. Water supply type~~

~~v.~~iv. The number of years the septic tank has been in service (the age of the septic tank).

(b) A protocol for tank inspections which includes

i. The frequency at which tanks will be inspected;

ii. The methods of inspection that may be used.

(c) Details on how education and advice will be shared with properties connected to the CEDS for proper septic tank use and operation.

(d) A template for recording tank inspection information which generally follows tank inspection requirements under AS/NZS 1547:2012.

(e) A desludging programme for the septic tanks connected to the CEDS which recognises that older tanks may need to be desludged more frequently than newer tanks.

9 Septic tanks that are a part of the CEDS must be inspected and maintained in accordance with the Septage Management Plan required by Condition 8.

~~10 The Consent Holder must, within three months of commencement of this Consent, invite representatives from Te Rūnanga o Te Rarawa, Ngā Hapū o Ngāti Korokoro, Pākanae Resource Management Committee, Te Hikutū, Ngāpuhi and Te Rararwa to form a Kaitiaki Liaison Group. The Group must also include a representative(s) of the Consent Holder.~~

~~11 The purpose of the Kaitiaki Liaison Group is to provide a forum to:~~

~~(a) Share and discuss information on the performance of the wastewater treatment plant and monitoring of the Hokianga Harbour; and~~

~~(b) Address any other matters relating to the wastewater treatment plant as identified by the Group.~~

~~12 The Consent Holder must:~~

~~(a) Hold regular meetings (at least annually) for the duration of the Consent, unless the representatives of the Kaitiaki Liaison Group request a different meeting schedule; and~~

~~(b) Provide the monitoring data for the previous year.~~

~~(c) Prepare minutes recording actions from the meeting. A copy of the minutes must be provided to the members of the group within one month following a meeting.~~

~~13 The Consent Holder, or its authorised agent, must invite and allow representative(s) of a Kaitiaki Liaison Group formed under Condition 10 to attend monitoring of the wastewater discharge.~~

~~14~~10 The Consent Holder must keep a record of all wastewater flows to the treatment plant. Records must be provided to Northland Regional Council's assigned monitoring officer upon written request.

~~15~~11 The Consent Holder must, for the purposes of adequately monitoring these consents as required under Section 35 of the Act, on becoming aware of any contaminant associated with the Consent Holder's operations escaping otherwise than in conformity with these consents:

(a) Take immediate action to stop and/or contain such escape;

(b) Immediately notify the Northland Regional Council by telephone of an escape of contaminant;

(c) Take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and

(d) Notify the Northland Regional Council in writing within one week on the cause of the escape of the contaminant and the steps taken or being taken to effectively control or prevent such escape.

For telephone notification during the Northland Regional Council's opening hours (8.00 a.m. to 5.00 p.m.), the Northland Regional Council's assigned Monitoring Officer for these consents must be contacted. If that person cannot be spoken to directly, or it is outside of the Northland Regional Council's opening hours, then the Environmental Hotline must be contacted.

~~16~~12 The Council may, in accordance with Section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions annually during the month of May for any one or more of the following purposes:

(a) To deal with any adverse effects on the environment that may arise from the exercise of the consents and which it is appropriate to deal with at a later stage, or

(b) To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.

AUT.003839.01 and AUT.003839.02 – Discharges to Coastal Marine Area and Land

~~17~~13 The quality of treated wastewater discharged to the Hokianga Harbour must not exceed 40 cubic meters per day.

~~18~~14 The Consent Holder must maintain easy and safe access to the NRC Sampling Sites ~~322~~, 323 and 2051 at all times.

~~19~~15 If the median concentration of faecal coliforms, based on the five most recent samples collected from the NRC Sampling Site 323 (discharge from the wetland), exceeds 5,000 per 100 millilitres or if the concentration of faecal coliforms in any one sample collected from NRC Sampling Site 323 exceeds 15,000 per 100 millilitres, then additional monitoring must be carried out in accordance with Schedule 2 (**attached**). This condition ceases to have effect once the treatment plant is upgraded in accordance with Condition 20.

~~20~~16 The Consent Holder must, no later than 1 July 2025, de-sludge the facultative pond, remove the excess vegetation present in the wetland, install baffles and move the influent inlet to the north-eastern corner of the pond, as recommended in the *Kohukohu WWTP Issues and Options Report, prepared by Jacobs, dated 15 October 2020, ref.IZ134400.*

~~21~~17 Once the treatment plant has been upgraded in accordance with Condition 20, the quality of the treated wastewater, as measured at NRC Sample Site 323 (discharge from the wetland), must meet the following standards based on the results of samples collected in accordance with **Schedule 1** (**attached**):

Parameter	Unit	Median	90~~5~~TH Percentile
Ammoniacal Nitrogen	g/m^3	20	32
Faecal Coliforms	CFU/100ml	2,500	24,000

~~22~~ Notwithstanding Conditions 19 and 21, if the concentration of total ammoniacal nitrogen in any sample taken from NRC Sampling Site 323 (discharge from the wetland) exceeds 40 grams per cubic metre, then additional monitoring shall be undertaken in accordance with Schedule 2 **(attached)**.

~~18~~

~~23 Notwithstanding any other conditions of this Consent, the discharge shall not cause the water quality of the Hokianga Harbour at NRC Sampling Site 231 to fall below the following standards:~~

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(a) The natural pH of the water shall not be changed by more than 0.2 units.

(b) The median concentration of faecal coliform bacteria in the water shall not exceed 14 per 100 millilitres and the 90th percentile concentration shall not exceed 43 per 100 millilitres, based on not fewer than 10 (ten) samples taken over any 30 day period.

(c) The visual clarity of the water shall not be reduced by more than 20%.

(d) There shall be no production of significant oil or grease films, scums or foams, floatable or suspended materials, or emission of objectionable odour.

(e) The dissolved oxygen concentration shall not be reduced below 80% of saturation.

(f) The concentration of total ammoniacal nitrogen shall not exceed the following:

Salinity – 10 g/kg					
pH	**10°C**	**15°C**	**20°C**	**25°C**	**30°C**
7.0	16	12	7.7	5.4	3.6
7.2	9.9	7.2	4.9	3.4	2.3
7.4	6.4	4.4	3.0	2.1	1.5
7.6	4.1	2.8	2.0	1.4	0.99
7.8	2.6	1.8	1.2	0.91	0.62
8.0	1.6	1.2	0.80	0.57	0.39
8.2	1.1	0.72	0.51	0.36	0.26
8.4	0.67	0.46	0.34	0.24	0.17
8.6	0.44	0.30	0.22	0.16	0.12
8.8	0.28	0.21	0.15	0.12	0.09
9.0	0.19	0.14	0.11	0.08	0.07

Salinity – 20 g/kg					
pH	**10°C**	**15°C**	**20°C**	**25°C**	**30°C**
7.0	17	12	8.0	5.4	3.9
7.2	11	7.4	5.1	3.6	2.5
7.4	6.7	4.6	3.4	2.2	1.6
7.6	4.4	2.8	2.1	1.4	0.99
7.8	2.8	1.9	1.3	0.91	0.64
8.0	1.7	1.2	0.82	0.59	0.41
8.2	1.1	0.77	0.54	0.39	0.26
8.4	0.69	0.49	0.36	0.25	0.18
8.6	0.46	0.34	0.23	0.16	0.12
8.8	0.30	0.21	0.16	0.12	0.09
9.0	0.20	0.15	0.11	0.08	0.07

Salinity – 30 g/kg					
pH	**10°C**	**15°C**	**20°C**	**25°C**	**30°C**
7.0	18	12	9.1	6.0	4.5
7.2	12	8.0	5.4	3.9	2.6
7.4	7.2	4.9	3.4	2.4	1.6
7.6	4.6	3.0	2.6	1.5	1.1
7.8	2.8	2.0	1.4	0.99	0.67
8.0	1.8	1.3	0.91	0.62	0.44
8.2	1.2	0.82	0.57	0.41	0.28
8.4	0.74	0.51	0.36	0.26	0.19
8.6	0.49	0.34	0.25	0.18	0.13

~~8.8~~	~~0.30~~	~~0.22~~	~~0.16~~	~~0.12~~	~~0.09~~
~~9.0~~	~~0.21~~	~~0.16~~	~~0.12~~	~~0.09~~	~~0.07~~

APP.003839.03 – Discharge to Air

~~24~~19 The exercise of this consent must not result in the discharge of contaminants which are deemed by a Monitoring Officer of the Northland Regional Council to be noxious, dangerous, offensive or objectionable at or beyond the boundary of the area legally occupied by the wastewater treatment system.

EXPIRY DATE: **31 AUGUST 3031**

SCHEDULE 1

The Consent Holder must undertake the monitoring specified in this schedule.

All samples must be collected using National Environmental Monitoring Standards (NEMS) procedures and stored in appropriate laboratory supplied containers.

All samples collected must be transported in accordance with NEMS procedures to the laboratory.

All samples must be analyses at an accredited laboratory with registered quality assurance procedures, and all analyses are to be undertaken using standard methods, where applicable. Registered Quality Assurance Procedures are procedures which ensure that the laboratory meets recognised management practices and would include registrations such as ISO 9000, ISO Guide 25, Ministry of Health Accreditation.

MONITORING OF KOHUKOHU WASTEWATER TREATMENT SYSTEM

At no more than four monthly intervals, the following samples and analyses shall be undertaken. The time of sampling is to vary for each sampling visit.

At NRC Sampling Site 322 (discharge from the wetland) a composite* sample of wastewater will be undertaken and analysed for the following:

Determinant
Total Ammoniacal Nitrogen
Faecal Coliforms
Five Day Biochemical Oxygen Demand
Suspended Solids

**A sample made up of equal volumes from three samples taken at least five minutes apart during the same sampling event.*

Temperature, pH and dissolved oxygen concentration are to be recorded at NRC Sampling Site 323 using an appropriate meter, and in accordance with standard procedures.

COMPLIANCE WITH MEDIAN AND 95TH PERCENTILES

Median Value

The median value for the determinants listed shall be a "rolling" median calculated on the 12 most recent composite wastewater samples collected at NRC Sampling Site 323. Until such time as 12 composite wastewater samples have been collected, the results of sampling to date shall be utilised for compliance purposes.

90~~5~~TH Percentile Value

The 9~~5~~0th percentile value shall be calculated using the 12 most recent composite wastewater samples collected at NRC Sampling Site 323. Until such time as 12 composite wastewater samples have been collected, the results of sampling to date shall be utilised for compliance purposes.

~~HOKIANGA HARBOUR~~

~~Once every five years the Hokianga Harbour shall be monitored in accordance with the **attached** Monitoring Schedule 2.~~

SCHEDULE 2

The Consent Holder shall monitor the exercise of this Consent in accordance with the following monitoring programme:

Sampling at NRC Sampling Sites 231, 323, 2051, 2052 and 5815 (see **attached** map) is to occur on the same day and is to be undertaken on the ebb tide as close to low time as is practicable.

~~To determine the most appropriate sampling point and depth at NRC Sampling Site 231, a sufficient quantity of tracer dye (or another suitable tracer material) should be introduced at NRC Sampling Site 323 that results in a visible dye plume at NRC Sampling Site 231. The samples should be collected from within the tracer dye plume.~~

~~Prior to the introduction of tracer dye at NRC Sampling Site 323, an assessment of water clarity should be made at NRC Sampling Site 5185 and 231. If a conspicuous change in clarity is apparent between the waters at NRC Sampling Sites 5185 and 231, then a standard Black Disk shall be used to measure this difference in clarity.~~

At NRC Sampling site 323 a composite* sample shall be taken. At NRC Sampling Sites 2051 and 2052, there samples of equal volume shall be taken at least five minutes apart. All samples taken at NRC Sampling Sites 323, 2051 and 2052 shall be analysed for the following:

Determinant
Total Ammoniacal Nitrogen
Faecal Coliforms

**A sample made up of equal volumes from three samples taken at least five minutes apart during the same sampling event.*

Temperature, pH and dissolved oxygen concentration are to be recorded at NRC Sampling Sites 323, 2051 and 2052 using an appropriate meter and in accordance with standard procedures.

At NRC Sampling Site 231 and 5815, ten samples of equal volume shall be taken at least five minutes apart. All samples taken at NRC Sampling Site 231 and 5815 shall be analysed for the following:

Determinant
Total Ammoniacal Nitrogen
Faecal Coliforms

Temperature, pH, dissolved oxygen concentration and salinity are to be measured at NRC Sampling Sites 231 and 5815 using an appropriate meter, and in accordance with standard procedures.

Monitoring Locations: