Te Kaunihera o Te Hiku o te Ika
Far North District Council

Whatuwhiwhi Wastewater Treatment Plant

Replacement Discharge Consent Application and Assessment of Environmental Effects

May 2025

Report Information and Quality Control

Far North District Council

5 Memorial Avenue
Kaikohe 0405
Private Bag 752, Kaikohe 0440
New Zealand

Telephone: 0800 920 029

Document Details:

Date: 26.05.2025
Reference:
Status: Revision 1

Prepared by:

Louise Wilson, Senior Infrastructure Planner

Reviewed by:

Losaline Finekifolau, Infrastructure Consenting Team Leader

Cover Photo: Whatuwhiwhi Wastewater Treatment Plant Pond 1 6 September 2023

.

Acronym/Term	Description
Act	Resource Management Act 1991
AEE	Assessment of Environmental Effects
Applicant	Far North District Council (Infrastructure Consenting)
BPO	Best Practicable Option
BOD	Biological Oxygen Demand
CIA	Cultural Impact Assessment
CMA	Coastal Marine Area
DO	Dissolved oxygen
FNDC	Far North District Council
HEMP	Hapu Environmental Management Plan
NES -F	National Environmental Standards for Freshwater Management 2020
NPS - FM	National Policy Statement for Freshwater Management 2020 (Amended 2024)
NRC	Northland Regional Council
NZCPS	New Zealand Coastal Policy Statement
PRPN	Proposed Regional Plan for Northland
RMA	Resource Management Act
RPS	Regional Policy Statement
TN	Total Nitrogen
TSS	Total Suspended Solids
UV	Ultra-violet

Contents

Page

1 Applicant and Property Details 6

2 Overview 6

3 Background 8

3.1 Existing Treatment Plant and Discharge 9

3.2 Current Treatment Process and Compliance 10

4 The Proposal 13

4.1 The Proposal 13

4.2 Consent Duration 13

4.3 Best Practical Option (BPO) 13

5 The Site and Receiving Environment 15

5.1 The Site 15

5.2 The Receiving Environment 16

5.3 Waterbodies 17

5.4 Natural Hazards 17

6 Reasons for Application 20

6.1 Resource Management Act 1991 20

6.2 National Environmental Standards 20

6.3 Proposed Regional Plan for Northland 2024 21

6.4 Far North District Plan and Proposed Far North District Plan 21

6.5 Overall Activity Status 21

7 Assessment of Environmental Effects and Schedule 4 Assessment 22

7.1 Consideration of alternative locations or methods 22

7.2 Positive effects 22

7.3 Effects of Discharge of Contaminants to Air (Odour) 23

7.4 Natural Hazards 24

7.5 Effects on the Waimango Wetland 25

7.5.1 Water Quality 26

7.5.2 Ecosystems and Indigenous Species 27

7.5.3 Public Health 28

7.6 Cultural Effects 29

7.7 Assessment of Effects Conclusion 29

8 Notification Assessment – Sections 95A to 95G of the RMA 30

8.1 Public Notification Assessment 30

In accordance with s.95A(3)(a) of the Act, the applicant requests that this application be publicly notified... 30

8.2 Limited Notification Assessment 30
8.3 Adjacent Land 30
8.3 Consultation and Engagement 31
9 Statutory Assessment 32
9.1 Part 2 of the Act 32
9.2 Section 104(1)(a) of the Act 33
9.3 Section 104(1)(b) of the Act 33
National Policy Statement for Freshwater Management 2020 (Amended 2024) 34
National Coastal Policy Statement 2010 (NZCPS) 35
Regional Policy Statement for Northland 2016 36
Proposed Regional Plan for Northland 2024 37
Section 104(1)(b) Summary 43
9.4 Section 104(1)(c) of the Act 44
9.5 Section 104 (2A) 44
10 Conclusion 45
11 References 46
APPENDIX A Prescribed Application Forms 47
APPENDIX B Records of Title 48
APPENDIX C Current Resource Consents 49
APPENDIX D Relevant Objectives and Policies 50
APPENDIX E Consultation Record 51
APPENDIX F Air Quality and Odour Assessment 52
APPENDIX G Flood Hazard Risk Assessment 53
APPENDIX H Water Quality and Public Health Risk Assessment 54
APPENDIX J Wastewater Management Plan 55
APPENDIX K Proposed Consent Conditions 56

1 Applicant and Property Details

Applicant:	Far North District Council Infrastructure Group Attn: Louise Wilson, Senior Infrastructure Planner
Site Address:	Inland Road, Karikari Peninsula
Address for Service:	Far North District Council Memorial Avenue Private Bag 752 Kaikohe 0440
Legal Description:	Lot 1 DP 52317
Site Area:	7.548ha
Owner of Site:	Far North District Council
Proposal Summary:	This application seeks to obtain replacement resource consents for the discharges to land, air and water associated with the Whatuwhiwhi wastewater treatment plant.
Summary of Reasons for Consent:	Resource consent is sought pursuant to Proposed Regional Plan for Northland rule C.6.2.2 Wastewater Treatment Plant discharge

2 Overview

The Applicant, Far North District Council (FNDC), is applying to Northland Regional Council (NRC) to replace resource consents AUT.007203.02.02 and AUT.007203.03.02 authorising the discharge of treated wastewater to land and air associated with the operation of the Whatuwhiwhi Wastewater Treatment Plant (W-WWTP).

These consents were issued on 8 July 2011 and will expire on 30 November 2025. FNDC is seeking replacement consents to enable the lawful operation of the Whatuwhiwhi wastewater scheme.

Pursuant to s.124(2) of the Act, FNDC propose to continue operating the W-WWTP under AUT.007203.02.02 and AUT.007203.03.02 until a new consent is granted and all appeals are determined.

This application has been prepared in accordance with the requirements of Schedule 4 of the Resource Management Act 1991 ('the Act'), while having regard to the relevant matters in the following documents.

- National Policy Statement for Freshwater Management 2020 (NPSFM 2020).
- New Zealand Coastal Policy Statement 2010 (NZCPS).
- Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-FM).
- Regional Policy Statement for Northland 2016 (Updated 2018) (RPS).
- Proposed Regional Plan for Northland – February 2024 (PRPN).

The application is supported by the technical reports appended and listed as follows;

Appendix A:	Prescribed Application Forms
Appendix B:	Records of Title
Appendix C:	Copy of Current Resource Consents
Appendix D:	Relevant Objectives and Policies
Appendix E:	Consultation Record
Appendix F:	Air Quality and Odour Assessment
Appendix G:	Flood Hazard Risk Assessment
Appendix H:	Water Quality and Public Health Risk Assessment
Appendix I:	Wastewater Management Plan
Appendix J:	Best Practicable Option Report
Appendix K:	Proposed Consent Conditions

FNDC acknowledges the Kaitiakitanga of Haititaimarangai Marae and their Hapu Environmental Management Plan.

This application has been prepared with technical support from WSP Consultants, Ventia NZ Ltd and Haititaimarangai Marae.

3 Background

FNDC holds resource consents AUT.007203.02.02 and AUT.007203.03.02 from NRC for discharges to land and air associated with the operation of the Whatuwhiwhi Wastewater Treatment Plant (W-WWTP). These consents were issued on 8 July 2011 and will expire on 30 November 2025. FNDC is seeking replacement consents to enable the lawful operation of the Whatuwhiwhi wastewater scheme.

The W-WWTP is located off Inland Road on the Karikari Peninsula, on the east coast of the Far North District approximately 1.5km from the coastal settlement of Whatuwhiwhi (Figure 3-1). It receives wastewater from urban settlements in Tokerau Beach and Whatuwhiwhi.

Figure 3-1: WWTP General location on the Karikari Peninsula, Far North District (map dated 10 January 2024).

There are currently 808 connections to the W-WWTP. Most of these connections are residential as the area has limited commercial zoning or industrial activity. As a coastal community, the number of residents in Whatuwhiwhi fluctuates significantly. Populations are higher during the summer, peaking over the Christmas period. FNDC subscribes to Infometrics to access census data for the district. Even under a high growth scenario, the projection is for 0.7% population growth per annum in the Karikari Peninsula area between 2023 and 2033.

3.1 Existing Treatment Plant and Discharge

The W-WWTP was initially constructed in the 1980's.

In 2007, the W-WWTP comprised of one mechanically aerated pond, followed by two constructed wetlands (CWL) in series. Discharge from the CWL was into water via a boundary drain into a natural marsh system on adjoining properties.

In 2010, upgrades to the W-WWTP were carried out which included installation of an inlet screen, converting the CWL into a second aeration pond, and the addition of aqua mats. Discharge from the second aeration pond was via a 40m distribution pipe to land within the designated W-WWTP site.

In 2014, an ultraviolet (UV) treatment unit was installed next to the second aeration pond.

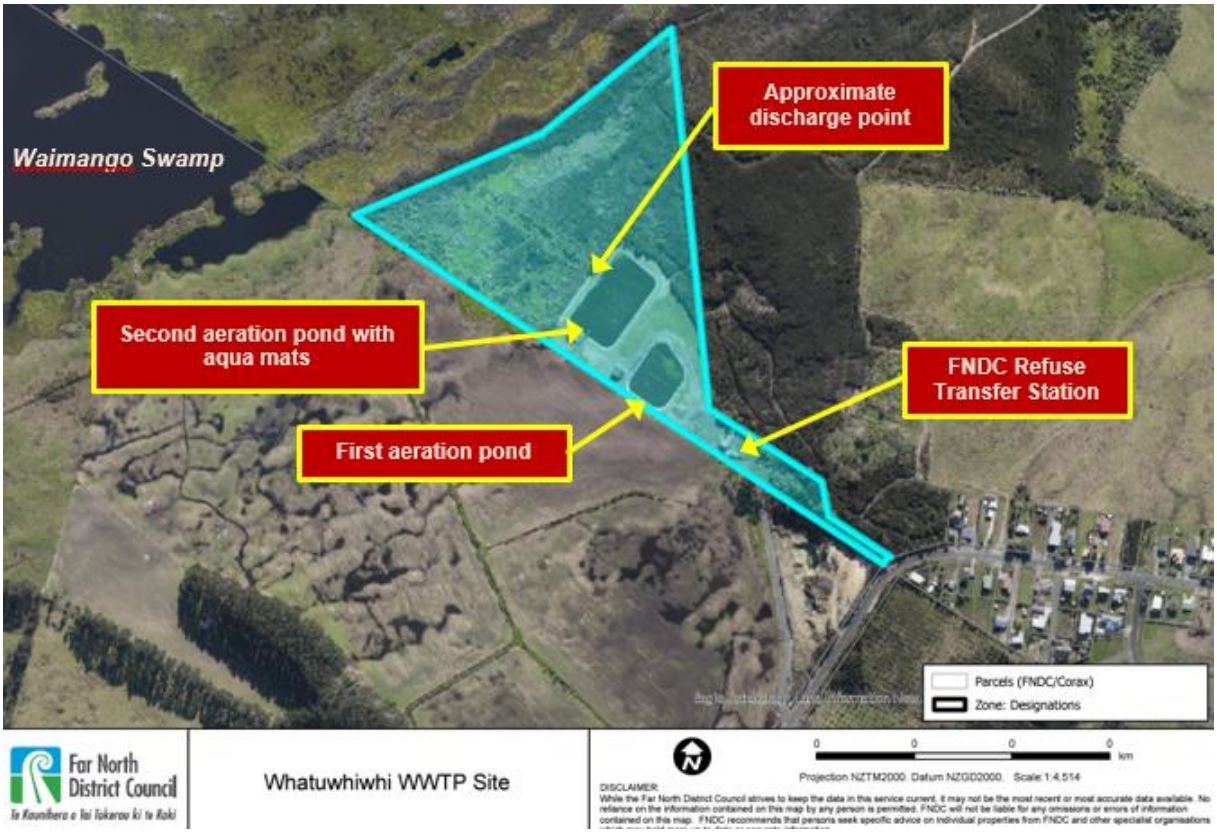

Figure 3.2 WWTP designated area (cyan colouring) and site features (map created 10 January 2024).

The W-WWTP still has two aerated ponds, with the last pond containing bioactive aqua mats. However, the 40m distribution pipe has been decommissioned and treated wastewater from the WWTP is discharged directly to a drain which has similar characteristics to a wetland. The drain discharges into a wetland within the subject site.

An Asbuilt plan of the current W-WWTP layout is shown as Figure 3.3.

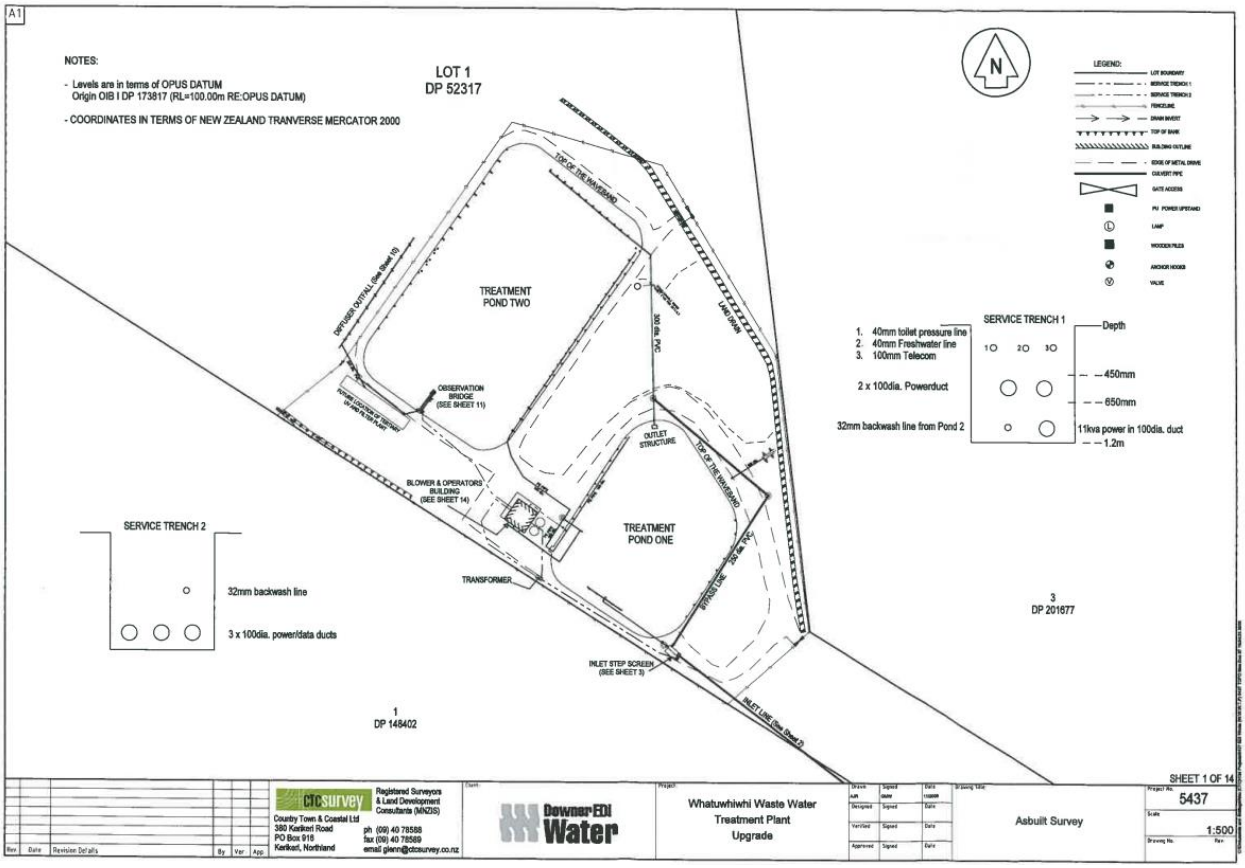

Figure 3.3 As-built plan of current W-WWTP layout

3.2 Current Treatment Process and Compliance

Influent Screening and Flow Measurement

Raw wastewater arriving at the W-WWTP is screened through a Hydropress step screen. This removes solids such as wetwipes and rags which are then sent to an authorised land fill in Whangarei (Figure 3.4).

Figure 3.4 The stepscreen removes solids and deposits in a waste skip for landfill

Inflow volumes are recorded via a Magflow meter. The inflow volume readings are included in monthly reporting to NRC.

Pond Treatment

The raw influent enters treatment Pond 1 through a distribution header. In Pond 1 suspended sediments begin to settle out. The partially treated effluent leaves Pond 1 through an outlet at the opposite end and gravity feeds into Pond 2 (see Figure 3.4). The designed residence times are between 20 to 40 days. Both ponds are aerated to promote the biological process of breaking down the organic contaminants.

Both ponds have AquaMats installed. These suspended mats provide an increased growth area for bacteria that play a significant role in the breakdown of biological oxygen demand (BOD) and ammonia. Mechanical aeration provides oxygen to the process and creates water columns, encouraging mixing of the pond effluent. Air for aeration is provided by two blowers in the plant building.

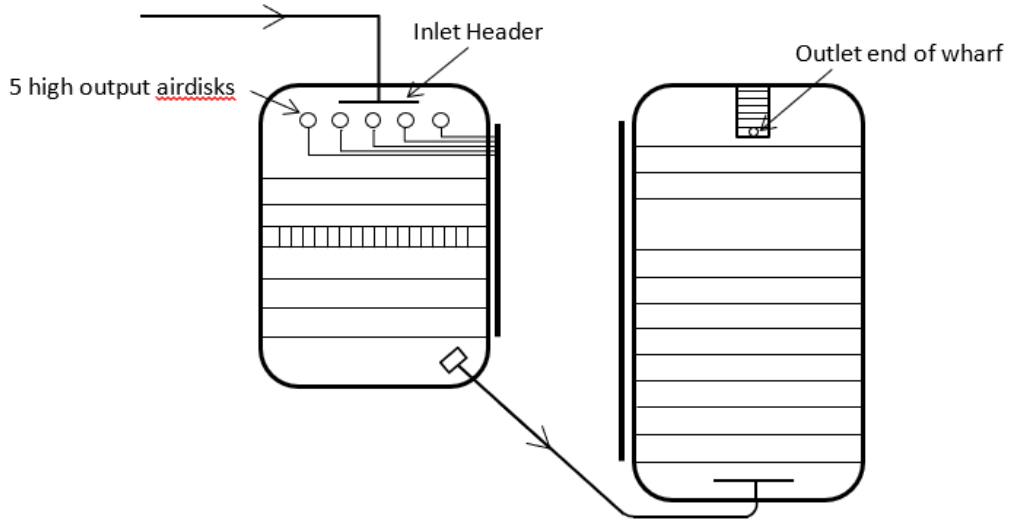

Figure 3.5 Schematic of flow from inlet of Pond 1 to outlet of Pond 2

Figure 3.6 Photo of Pond 1 - note bubbles from airdisks and lines of aqua mats

Ultraviolet (UV) Treatment

From Pond 2, the partially treated effluent flows to the ultraviolet light (UV) unit. The UV unit treats effluent by radiating microbial organisms such as bacteria and protozoa. The radiation prevents the microbes from multiplying. This significantly reduces the health risks associated with organisms like Escherichia coli (E.coli)(Refer Appendix H).

Discharge Area

The treated effluent then discharges through a dispersion channel leading through a natural marsh within the treatment plant site. This marsh flows towards the Waimango Swamp at the northern boundary of the treatment site.

Operations and Maintenance

The W-WWTP must be appropriately operated and maintained to achieve adequate treatment and compliance with consent conditions (see Appendix I – Wastewater Management Plan). The Wastewater Management Plan (WMP) and associated Operations and Maintenance (O&M) Manual describes:

- The scheme, treatment plant equipment, treatment process and limits.
- The daily, weekly, monthly and annual tasks the Operator must perform to run the plant effectively
- The treatment plant components and the actions required to maintain the components.

Operations and Maintenance Manuals should be updated when new equipment or treatment processes are implemented. Appendix 1 contains the relevant sections of the WMP as reviewed in 2021. The WMP is currently being reviewed again but this review was not finalised prior to lodging this application. The Whatuwhiwhi WMP and O&M manual will be updated after the BPO has been implemented.

Monitoring and Compliance

- The W-WWTP is adjacent to the ecologically and culturally significant Waimango Swamp. Monitoring has been carried out in accordance with consent conditions since the consents were issued in 2011. The W-WWTP has consistently complied with consent limits for flow volume. Since the installation of the UV unit in 2014 all water quality parameters have been consistently compliant except total suspended solids (TSS)(See Figure 3.7).
- The elevated TSS is caused by a combination of algae in the ponds and high sludge levels. Compliance with water quality conditions is addressed in section 7.2 of this report and in the Water Quality and Public Health Risk Assessment in Appendix H.

Date	pH	Temperature [deg C]	DO [g/m3]	BOD [g/m3]	TSS [g/m3]	Faecal coliforms [cfu/100 mL] censors removed	E.coli [MPN/100 mL] censors removed	NH4-N [g/m3] (censors removed)
Count	64	65	65	59	63	37	45	65
Average (mean)	6.78	19.7	7.12	10.6	51.5	99.3	48.4	2.83
Median	6.92	20.3	7.29	9.9	46	5.0	5.0	0.49
95th percentile							102.8	14.31
Max	7.96	27.5	10.39	23.0	122	3200.0	1515.0	27.00

Figure 3.7 Combined NRC and FNDC summary statistics for wastewater discharge parameters 2019 – November 2024

4 The Proposal

4.1 The Proposal

The existing consent AUT.007203.02.02 authorises the W-WWTP discharge as a discharge to land. However, due to subsequent policy changes and caselaw, this application assesses the activity as a discharge to a wetland. Based on the current operation to the treatment plant, the required approvals under the Proposed Regional Plan for Northland (PRPN) are:

Plan/Rule	RMA	Activity	Classification
PRPN C.6.2.2	Section 15(1)(a)	Discharge of treated wastewater from a wastewater treatment plant into a natural marsh system within the catchment of Karikari Bay.	Discretionary
	Section 15(1)(b)	Discharge of treated wastewater from a wastewater treatment plant via seepage from two treatment ponds.	
	Section 15(2A)	Discharge contaminants (primarily odour) to air.	

It is anticipated that upgrades will be required to meet water quality standards for discharge to water. FNDC proposes to continue with the current discharges until engagement with Tangata Whenua and the community about the best practicable option (BPO) has been completed (see 4.3 below).

4.2 Consent Duration

FNDC seeks a consent term of 15 years.

A maximum consent duration of 35 years is available under the RMA for a discharge permit (consent). A longer-term consent would give FNDC confidence to plan for the long-term funding of the operation, maintenance, and upgrade of the W-WWTP. However, with reference to PRPN Policy D.2.14 we understand the need to balance this against certainty of effects of the discharge on the Waimango lagoon and potential changes in freshwater policy.

4.3 Best Practical Option (BPO)

Section 105 of the Act directs that when applying for a discharge permit the applicant must consider alternative methods of discharge and state the reason for choosing the proposed option.

> ***105 Matters relevant to certain applications***
> *(1) If an application is for a discharge permit or coastal permit to do something that would contravene section 15 or section 15B, the consent authority must, in addition to the matters in section 104(1), have regard to—*
> *(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.

Part 1 section 2 of the Act defines best practicable option:

> ***best practicable option**, in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to—*
>
> *(a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and*
>
> *(b) the financial implications, and the effects on the environment, of that option when compared with other options; and*
>
> *(c) the current state of technical knowledge and the likelihood that the option can be successfully applied*

FNDC is currently investigating the BPO for treating the wastewater (see Appendix H & J). Engagement with stakeholders about the BPO was not able to be completed prior to lodging. FNDC proposes to operate using the existing W-WWTP until the BPO has been identified and implemented.

Several assumptions were made to inform the BPO process, and these include:

- The site location remains the same;
- The discharge location remains the same;
- Phosphorus removal is not required but can be added if necessary.

Based on these assumptions, six options were identified for the site. On 21 February 2025, FNDC and WSP Consultants met with tangata whenua representatives to present a long list of six treatment plant upgrade options. Using initial feedback from tangata whenua and the treatment plant operator (Ventia) a multi criteria analysis (MCA) was undertaken to identify the three most appropriate options. These three include:

- Refurbishment to the existing plant with an upgrade to include Dissolved Air Floatation (DAF) for solids removal;
- Packaged sequencing batch reactor (SBR);
- Intermittently decanted extended aeration lagoon (IDEAL).

It is anticipated that any of the three upgrade options would result in improved water quality.

Expected effluent quality						
	BOD5	NH3-N	TN	TSS	TP	Faecal Coliform
Current median consent limit	30	30	NA	30	NA	500
Existing plant upgrade	25	20	35	10	16	<100
Sequencing Batch reactor (SBR)	10	3	10	5	14	<100
Intermittent Decanting Extended Aeration Lagoon (IDEAL)	20	5	20	5	14	<100

Fig. 4.1 anticipated water quality outcomes from BPO options.

FNDC anticipates resource consent conditions that state a timeframe for working with stakeholders to identfy and implement the BPO and water quality improvements.

5 The Site and Receiving Environment

5.1 The Site

The W-WWTP is located on land legally described as Lot 1 DP 52317, Blk IV, Karikari SD. The site is 7.548ha. A copy of the Record of Title is attached in Appendix B.

The site is designated (Designation No. FN161) for the purposes of Sewage Treatment & Disposal (Figure 5.1). FNDC is the requiring authority for this designation. The underlying zoning of the W-WWTP site is Rural Production. Adjoining properties are also zoned Rural Production (Figure 5.1).

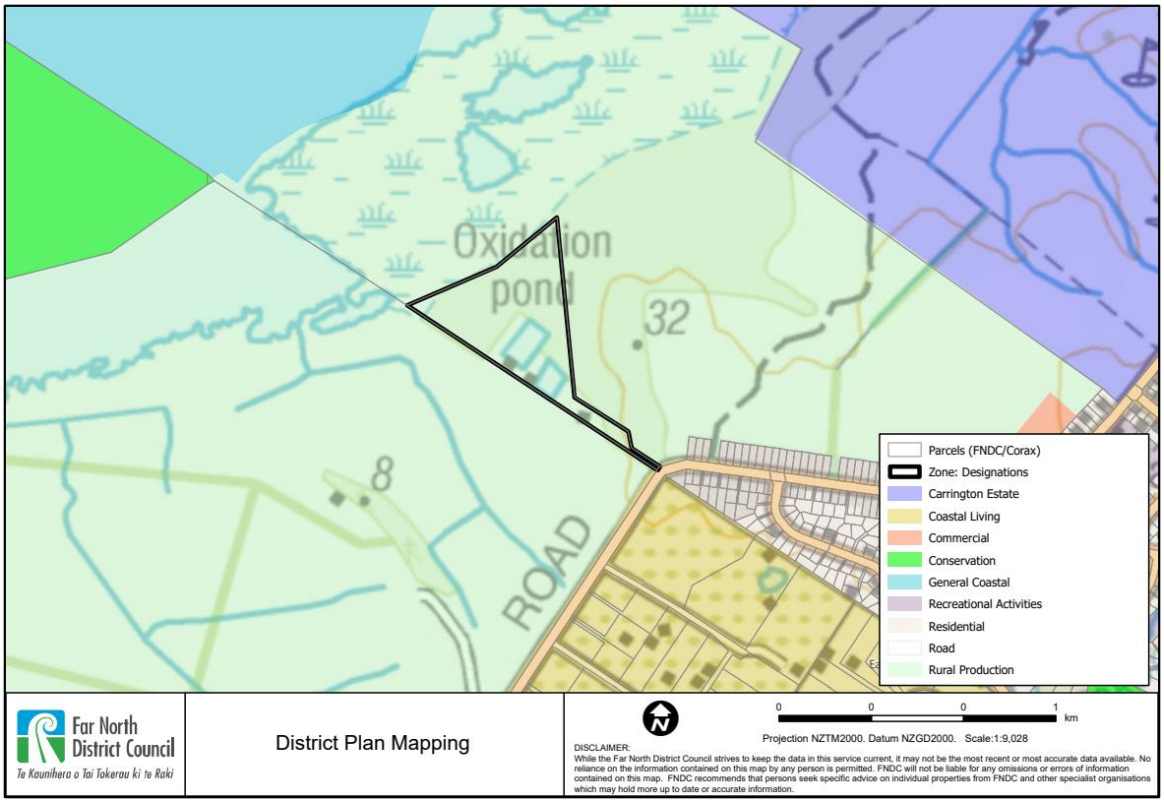

Figure 5.1 Far North District Plan (FNDP) Zone mapping of land (map created 10 January 2024).

The FNDC's Whatuwhiwhi Community Refuse Transfer Station is situated on the designated land halfway up the accessway to the WWTP facility. It is operated under resource consents AUT.044670.01.01-02.01 issued by NRC.

5.2 The Receiving Environment

The nearest dwelling is approximately 295m southeast of the first aeration pond at 1461 Inland Road. The Karikari Beach situated to the north of the W-WWTP site is mapped Outstanding Natural Landscape (ONL) resource area in the FNDP (Figure 5.3). A part of this ONL is also mapped in the PRPN as a site of Outstanding Natural Character (ONC) spanning both land and Coastal Marine Area (CMA). The Swamp complex is mapped as a High Natural Character (HNC) area in the PRPN (Figure 5.3) with the nearest mapped extent being approximately 320m to the northwest of the W-WWTP.

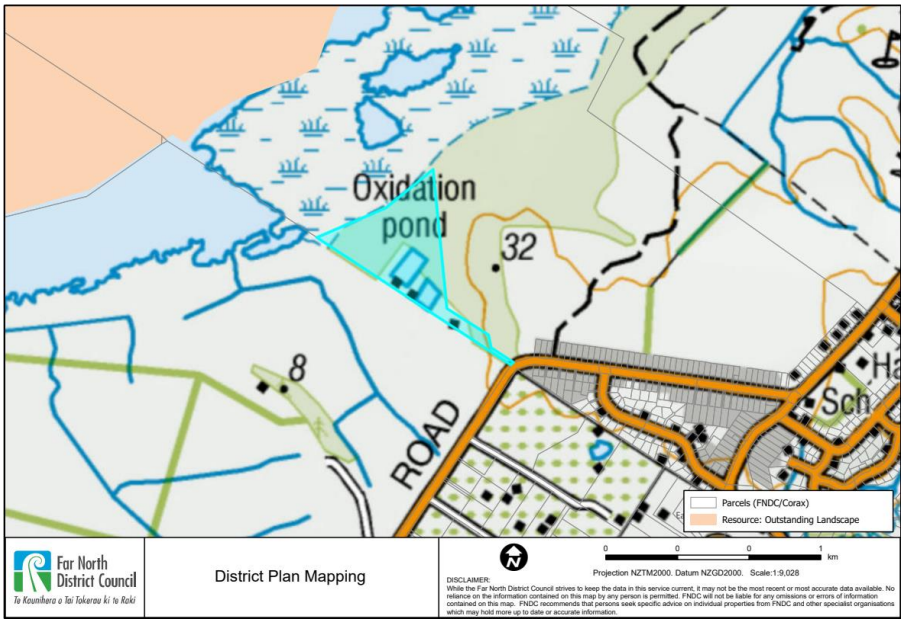

Figure 5.2 FNDP Resource area mapping (W-WWTP site demarcated by cyan outline and shading) (map created 10 January 2024).

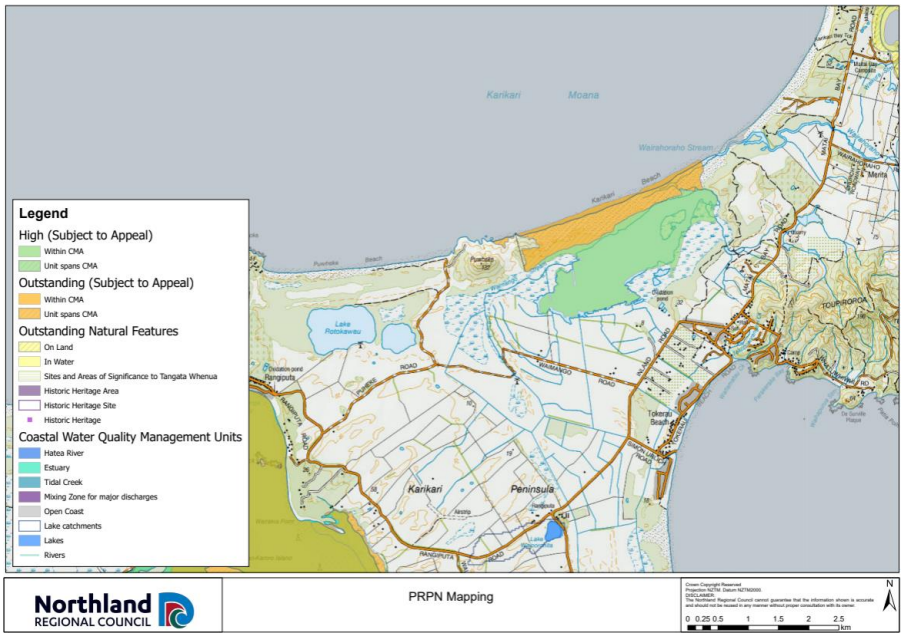

Figure 5.3 Proposed Regional Plan for Northland mapped features (map created 10 January 2024).

5.3 Waterbodies

The drain that receives the treated wastewater discharge is within a wetland environment. (Figure 5.5). The Swamp, located approximately 320m to the northwest of the W-WWTP, is described in the Protected Natural Areas Programme (PNAP) survey of the Aupōuri Ecological District as a shallow peat lake with primarily open water with ruppia & sedges.[1]

FNDC historically commissioned Wildlands Consultants to conduct wetland monitoring to determine whether Waimango Swamp was experiencing nutrification because of the W-WWTP discharge. The reports from 2016 and 2019 refer to the discharge site as a wetland environment.

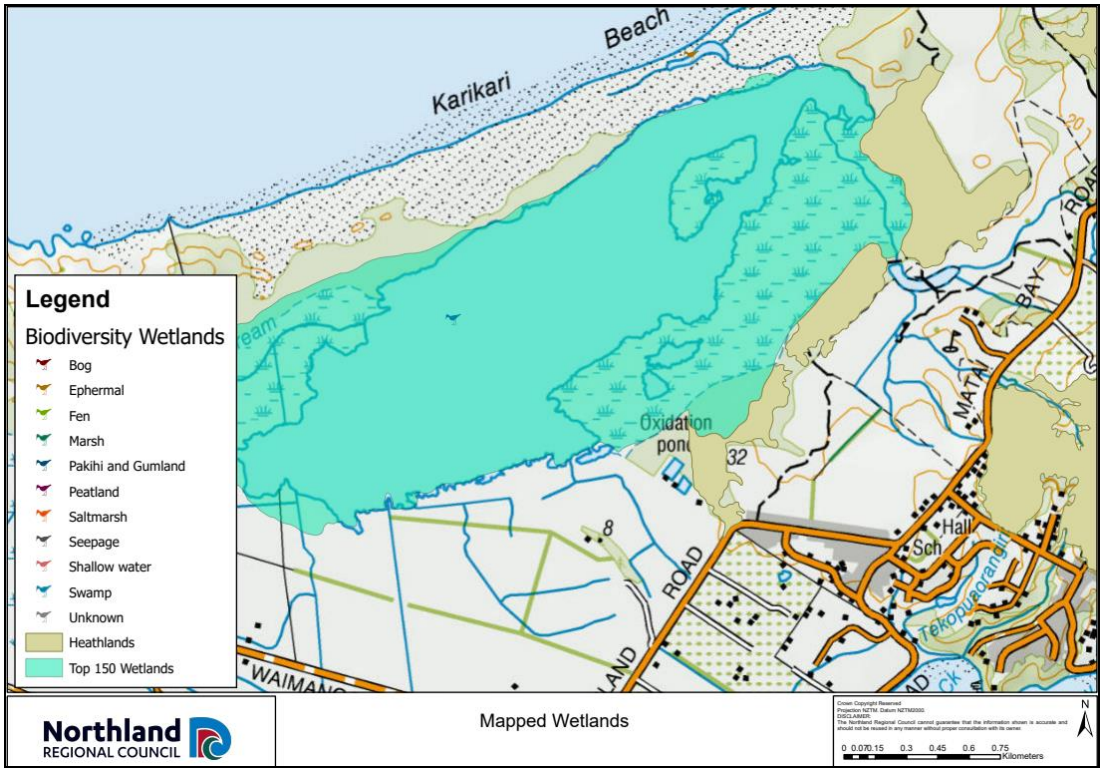

Figure 5.5 NRC Mapped wetlands (map created 10 January 2024).

5.4 Natural Hazards

There are no mapped hazards applying to the W-WWTP site. Coastal Flood Hazard 2 (100-year) is mapped over the discharge area (Figure 5.6). There is a Northland Civil Defence Tsunami Evacuation yellow zone area across the site (Figure 5.7).

In November 2024, WSP Consultants completed a Coastal Flood Risk Assessment (CFRA) in support of this application (see Appendix G). Based on the conservative estimates, there are two areas of the site that are at risk of inundation under CFHZ3 (southwestern and northern corners), and the northern corner of the site is also vulnerable to CFHZ2 in some localised areas.

[1] Natural areas of Aupouri Ecological District: Northland Conservancy ecological districts reports publication

There are no WWTP assets within these hazard zones on the site, but the unused access road in the north of the site may be impacted under CFHZ2 and CFHZ3 (see Figure 5.8). An assessment of environmental risks associated with natural hazards is included in section 7.2 of this report.

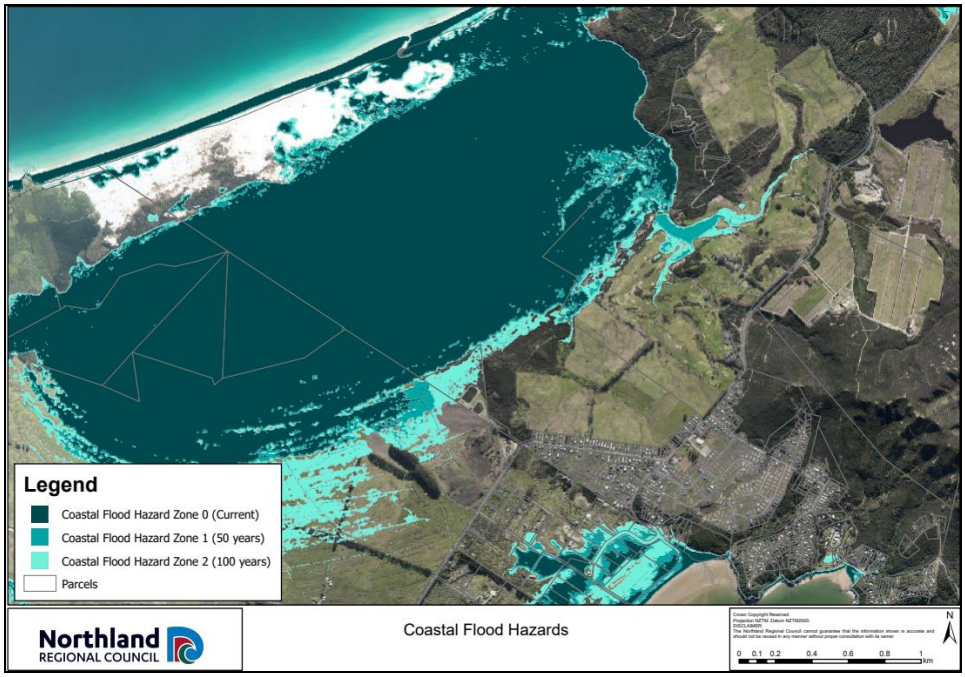

Figure 5.6 NRC coastal flood hazard mapping (created 10 January 2024).

Figure. 5.7 Tsunami Evacuation Zone (Northland Civil Defence)

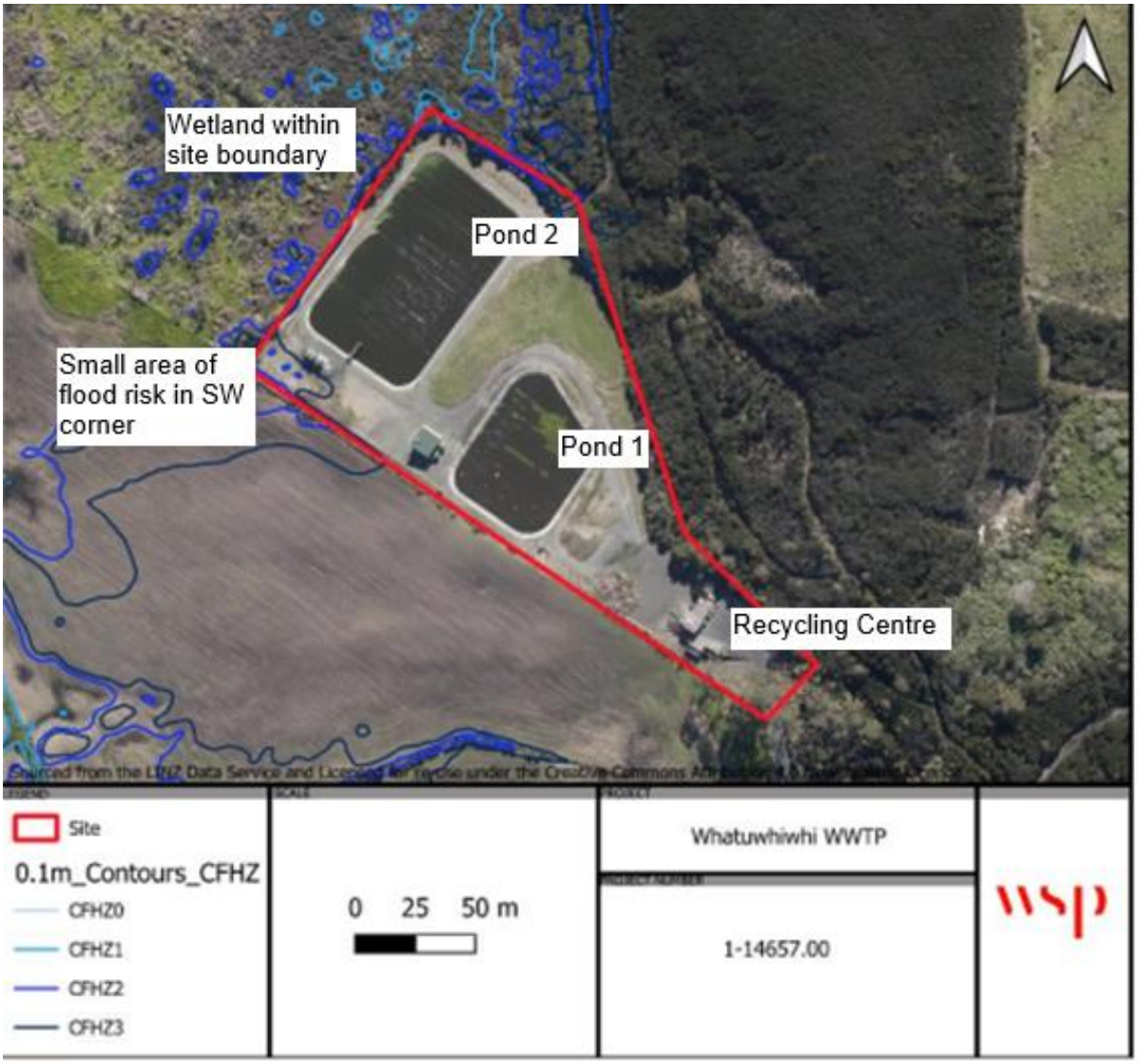

Figure.5.8 Modelled coastal flood risk showing two areas of the site that could flood but treatment plant infrastructure is not affected by flooding.

6 Reasons for Application

A rules assessment against the provisions of the Resource Management Act 1991, National Environment Standards for Freshwater, Proposed Northland Regional Plan (PRPN) and the Far North District Plan (FNDP) is provided. The proposal requires consent for the matters outlined below.

6.1 Resource Management Act 1991

The Act contains duties and restrictions on persons seeking to use and develop natural and physical resources.

For the W-WWTP, duties and restrictions are set out in Sections 9,15, and 16 of the Act. These provisions, with the exception of Section 16 of the Act, apply a hierarchy that restricts use and development according to a national environmental standard, followed by rules in a plan and any proposed plan. These restrictions are discussed in further detail in section 6.2 – 6.4 of this report.

The W-WWTP is designated in the FNDP with no designation conditions. Pursuant to s.176 (1)(a) the restrictions contained in s.9(3) do not apply to designated sites. In effect landuse consents from the District Council are not required if the activity being carried out is within the scope of the designation. However, designations do not exempt the designation holder from the requirements of s.9(1) or s.9 (2). Consequently, compliance with National Environmental Standards and Regional Plan rules must be assessed.

Section 43D of the Act allows that existing designations prevail over national environmental standards (NES) until the designation lapses. However, this only applies to NES that are within the administrative functions of territorial authorities under s. 31. NES administered by the Regional Council still apply and are assessed below.

6.2 National Environmental Standards

The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NESF) sets out requirements to safeguard the health of freshwater resources and ecosystems. In particular, to manage use and development within and in proximity to natural inland wetlands and other streams, rivers and waterbodies.

The discharge from the W-WWTP is within a 100m setback of a natural inland wetland. Consequently, the activity has been assessed under Regulation 54(d) of the NESF.

> *54 (d) the discharge of water into water within, or within a 100 m setback from, a natural inland wetland if—*
>
> *(i) there is a hydrological connection between the discharge and the wetland; and*
> *(ii) the discharge will enter the wetland; and*

(iii) *the discharge will change, or is likely to change, the water level range or hydrological function of the wetland*.

The Flood Hazard Risk Assessment and the Water Quality Assessment conducted by WSP Consultants did not find any evidence that the discharge will change, or is likely to change, the water level range or hydrological function of the wetland. Consequently, it is considered that the proposed activity complies with the requirements of the NESF.

6.3 Proposed Regional Plan for Northland 2024

Resource consent is required for the following breaches of the Proposed Regional Plan for Northland (PRPN).

Plan/Rule	RMA	Activity	Classification
PRPN C.6.2.2	Section 15(1)(a)	Discharge of treated wastewater from a wastewater treatment plant into a natural marsh system within the catchment of Karikari Bay.	Discretionary
	Section 15(1)(b)	Discharge of treated wastewater from a wastewater treatment plant via seepage from two treatment ponds.	
	Section 15(2A)	Discharge contaminants (primarily odour) to air.	

6.4 Far North District Plan and Proposed Far North District Plan

The W-WWTP is designated, as such no land use consents under the Far North District Plan (FNDP) and Proposed Far North District Plan (pFNDP) are required. However, if construction work is necessary to give effect to mitigation measures proposed in the Assessment of Environmental Effects (AEE), an Outline Plan of Works (OPW) or Outline Plan Waiver may be required.

6.5 Overall Activity Status

Overall, the proposal is assessed as a **discretionary** activity.

7 Assessment of Environmental Effects and Schedule 4 Assessment

Pursuant to Section 104(1)(a) of the Act, when considering an application for resource consent the consent authority must, subject to Part 2, have regard to any actual or potential effects on the environment.

In accordance with s88(2) and Clause 7(2) of Schedule 4 of the Act, this application contains an assessment of environmental effects (AEE). The relevant assessment matters are subject to the provisions of any policy statement or plan. An assessment of the activity's effects on the environment must include details that correspond with the scale and significance of the effects of the activity. This application relates to a discretionary activity, so all relevant effects have been assessed.

The following is an assessment of any actual or potential environmental effects from the proposed continuation of the existing discharge on the Waimango Wetland and associated environs.

A description of the mitigation measures to be undertaken to minimise or remedy the actual or potential effects is also provided.

7.1 Consideration of alternative locations or methods

Section 105 of the Act directs that when applying for a discharge permit the applicant must consider alternative methods of discharge and state the reason for choosing the proposed option (see section 4.3 of this report).

FNDC is currently investigating the BPO for treating the wastewater (see Appendix H & J). Engagement with stakeholders about the BPO was not able to be completed prior to lodging. FNDC proposes to operate using the existing W-WWTP until the BPO has been identified and implemented.

FNDC anticipates resource consent conditions that state a timeframe for working with stakeholders to identfy and implement the BPO and water quality improvements. This would likely include an assessment of options for discharge to land acknowledging cultural concerns about the discharge of treated wastewater to water.

7.2 Positive effects

The operation of the W-WWTP is fundamental to the ability of people and local communities to provide for their social, cultural and economic wellbeing, and for their health and safety. The W-WWTP is efficient and relatively effective for a pond-based system and enables the communities of Whatuwhiwhi and Tokerau Beach to maintain standards of public health. The W-WWTP has been operating since the 1980s and its presence has successfully reduced human and environmental health risks associated with wastewater (see Appendix H).

Its benefits are recognised by its classification as regionally significant under the Regional Policy Statement for Northland 2016 and the PRP. The proposal is to continue operating the W-WWTP until a more culturally acceptable option to treat and discharge wastewater is identified and implemented.

The positive effects of a wastewater treatment system are best understood by considering what the alternative effects on the environment would be if no reticulated wastewater treatment was provided. If wastewater was not reticulated, individual septic systems would likely be used. In a predominantly urban residential environment this could lead to widespread ground and surface water contamination and associated adverse effects on human and environmental health.

7.3 Effects of Discharge of Contaminants to Air (Odour)

Resource consent is sought as a discretionary activity pursuant to PRPN rule *C.6.2.2 – Wastewater treatment plant discharge,* for discharge of odour to air. The Whatuwhiwhi community refuse station is located within the same property as the W-WWTP. There are no other significant sources of odour in the area.

Generally, a well-managed aerobic digestion wastewater treatment system should not produce gases that cause objectionable odour. However, if there is insufficient aeration or circulation the aerobic system can become anaerobic. Anaerobic digestion produces gases with an objectionable odour.

The PRPN contains policies to guide the management of odour (refer policies D.3.1, D.3.2 and D.3.4). In accordance with policy D.3.1, the applicant has reviewed the Ministry for Environment (MFE) Good Practice Guide for Assessing and Managing Odour. FNDC sought technical advice regarding odour from WSP Consultants. A qualitative assessment of odour effects is provided in Appendix F.

The perception of adverse odour effects is reduced with separation distance. There is currently no New Zealand guidance on calculating separation distances between residences and WWTPs for the purpose of odour management. However, the Australian EPA provides a method for calculating appropriate separation distance. In this case, the recommended separation distance between the aerobic pond and residences is 212 metres. The closest residence is 300m from the aerobic pond. There are no marae, kura or other odour sensitive activities within the recommended separation distance.

FNDC currently keeps records of odour complaints through a request for service (RFS) system. A review of RFS's received in the last three years did not identify any odour complaints relating to the W-WWTP. In addition, the treatment plant operator keeps a site log and records if there are objectionable odours at the site boundary. This record has been maintained since 2016 and there are no recorded incidences of objectionable odour. FNDC is therefore of the view that the air discharge is not causing objectionable odour or adverse health effects beyond the boundary of the site.

In accordance with MFE guidance the applicant has prepared an odour management plan as part of the W-WWTP Wastewater Management Plan (refer Appendix. I). Odour from pond-based wastewater treatment plants can occur when the wastewater is insufficiently aerated

and becomes anaerobic. The BPO for the W-WWTP will include upgrades to maintain aerobic conditions.

Once the proposed improvements are implemented and, subject to compliance with the Wastewater Management Plan, the discharge of contaminants to air will have less than minor effects at the property boundary.

FNDC proposes the following mitigations and conditions regarding odour.

> *The Consent Holder's operations shall not give rise to any discharge of contaminants at or beyond the boundary of Lot 1 DP 52317, which is deemed by a suitably trained and experienced Enforcement Officer of the Regional Council to be noxious, dangerous, offensive or objectionable to such an extent that it has, or is likely to have, an adverse effect on the environment.*
>
> *The Consent Holder must prepare an Odour Management Plan that details the management measures to be followed to ensure that odour is not offensive beyond the boundaries of the site. A copy to the plan shall be forwarded to Northland Regional Council's assigned monitoring officer for endorsement within six months of the commencement of this consent.*
>
> *The Consent Holder shall maintain records of any complaints relating to the discharge of contaminants to air received by the Consent Holder, as detailed below:*
>
> *(a) A description of the complaint;*
> *(b) The name and address of the complainant;*
> *(c) The date and time the complaint is received;*
> *(d) The duration of the event that gave rise to the complaint;*
> *(e) The location from which the complaint arose;*
> *(f) The weather conditions prevailing at that time;*
> *(g) Any events in the management and operation of any processes that may have resulted in the increased discharge of contaminants to air; and*
> *(h) Any actions taken by the Consent Holder, where possible, to minimise the contaminant emissions.*
>
> *The Consent Holder shall notify the Northland Regional Council's assigned monitoring officer as soon as is practicable of any complaint received. In addition, a copy of this record shall be forwarded immediately to the Northland Regional Council's assigned monitoring officer upon written request.*

7.4 Natural Hazards

The W-WWTP is located on the periphery of a mapped area of coastal flood hazard (see Figure 5.6). It is also within an area shown as *yellow zone* in the NRC Civil Defence - Tsunami Evacuation Zone maps. The site is not subject to any other mapped hazards.

The PRPN Objective F.1.10. requires the minimisation of natural hazard risks to communities, infrastructure and the economy. Policies D.2.3 and D.2.20 direct that climate change and the precautionary principle should be considered. FNDC sought technical advice

from WSP consultants regarding coastal flood hazard risk. A Coastal Flood Risk Assessment is provided in Appendix G.

Two different approaches were used to identify water levels for potential inundation within the Whatuwhiwhi WWTP site. The first method was to use the available LINZ tidal information in conjunction with the NZ SeaRise sea level rise scenarios to identify potential inundation levels at 2130. The second approach was to adopt the water level estimates derived by Tonkin & Taylor (2021) for the Northland Region coastal flood hazard assessment. When comparing the water levels of the two approaches, the Tonkin & Taylor estimates for future events were more conservative and considered additional parameters such as storm tide and wave set up.

Based on the conservative estimates, there are two areas of the site that are at risk of inundation under CFHZ3 (southwestern and northern corners), and the northern corner of the site is also vulnerable to CFHZ2 in some localised areas (see Figure.5.8). There are no WWTP assets within these hazard zones on the site, but the unused access track in the north of the site may be impacted under CFHZ2 and CFHZ3. This access track was previously used to access monitoring sites but is no longer required.

There is a relatively low risk to the WWTP associated with anticipated climate change impacts during the proposed term of consent. Therefore, the Applicant considers that no specific mitigation measures are required in relation to natural hazard risks.

7.5 Effects on the Waimango Wetland

Resource consent is sought as a discretionary activity pursuant to PRPN rule *C.6.2.2 - wastewater treatment plant discharge*. The treatment plant discharges into the Waimango Wetland which is listed as a top 150 wetland.

PRPN Objective F.1.2 directs that discharges of contaminants to water must be managed so that:

> *1) existing water quality is at least maintained, and improved where it has been degraded below the river, lake or coastal water quality standards set out in H.3 Water quality standards and guidelines, and*
>
> *2) the sedimentation of continually or intermittently flowing rivers, lakes and coastal water is minimised, 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) the health and safety of people and communities, as affected by discharges of sewage from vessels, is safeguarded, 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.

To address the matters stated in Objective F.1.2, FNDC commissioned WSP Consultants to assess the potential adverse effects of the discharge on water quality, ecosystems, indigenous species and public health (Appendix H). A summary of the conclusions and recommendations is provided below.

7.5.1 Water Quality

WSP Consultants reviewed water quality sampling results from the following sources:

- FNDC monthly treatment plant outlet monitoring for faecal coliforms, biological oxygen demand (BOD), total suspended solids (TSS) and total ammoniacal nitrogen (TAN) between 2009 and 2022.
- Annual treatment plant outlet monitoring by Northland Regional Council, with 15 samples ending July 2024.
- Two rounds of monitoring undertaken by WSP Consultants in the receiving environment on the 19th of November 2024, and the 29th of January 2025. On each occasion samples were taken for a range of parameters at three sites shown in figure 7.5.1 below.

Site 2 and 3 are very difficult to access and required the use of waders. This could be a significant health and safety risk for operational staff if monthly monitoring were required.

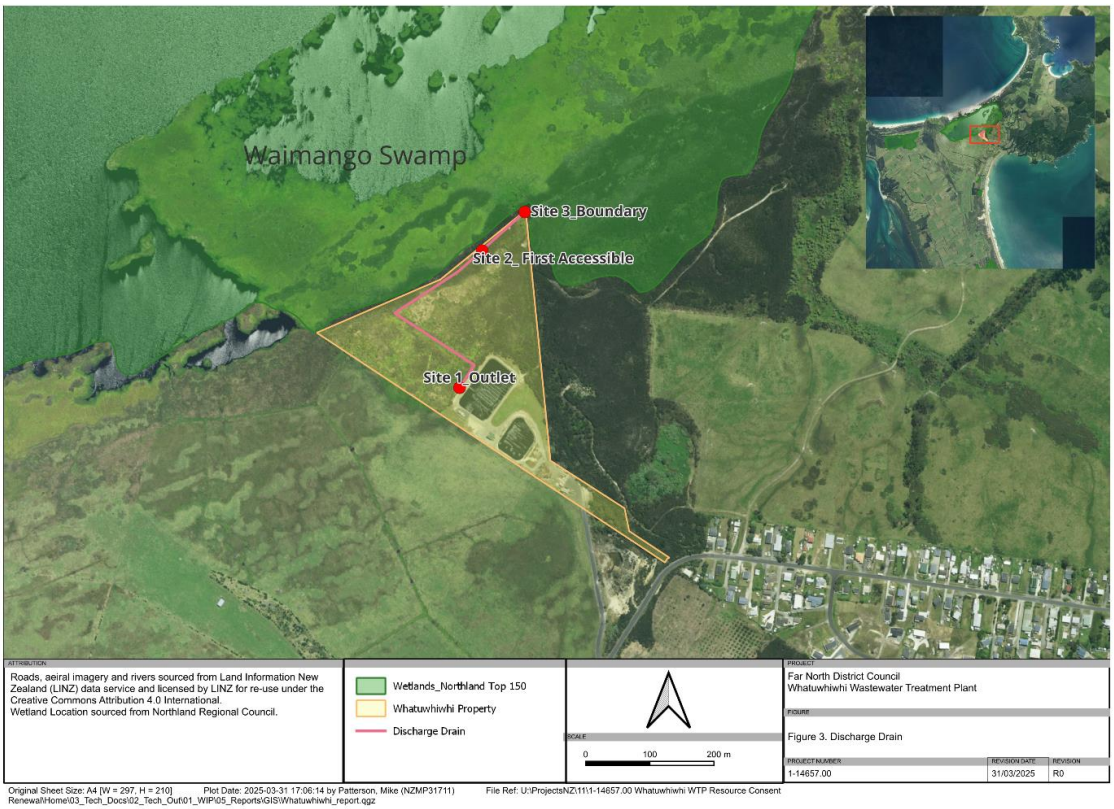

Fig. 5.7.1 Location of WSP water quality sampling sites

The findings of the water quality sampling indicated that:

- It is unlikely that the discharge is directly toxic to aquatic organisms at Site.2
- There is potentially an excess of both nitrogen and phosphorus being discharged into the receiving environment at a level beyond background concentrations and beyond guideline values particularly during peak demand holiday flows.
- Faecal coliforms such as *E. coli* appear to be sufficiently treated via UV treatment. The noted presence of wildfowl typical of a wastewater treatment oxidation pond and of wetlands are likely to significantly add to the *E. coli* load in the receiving environment.
- In two rounds of sampling copper is always compliant with the 99% species protection level at all sites; lead is compliant with 99% and 95% species protection levels; and zinc varies including at times exceeding 90% species protection thresholds.
- The proposed upgrades considered under the BPO process will result in modest improvements to a number of parameters including TSS, and in some instances BOD ammoniacal nitrogen, and TN.

WSP Consultants made several recommendations in relation to monitoring water quality. FNDC supports the following recommendations.

- As the ability to measure eutrophication effect on wetlands is limited, vegetation surveys should continue as a condition of consent, to ensure that any potential increase in nutrient load under future discharge scenarios can be addressed.
- FNDC would prefer increasing the frequency of treatment plant outlet monitoring as an alternative to monitoring in the wetland due to concerns about:
    - Health and safety for staff taking samples
    - The lack of clear connection between wetland sample results and surrounding landuses.
    - The construction of an accessway and associated infrastructure for sampling purposes would necessitating further consents for structures within a wetland.
- More frequent water sampling at the discharge channel would provide robust information about the quality of treatment. This monitoring is particularly relevant over the peak summer period, and consideration could be given to more intensive monitoring over this period. Particularly for ammoniacal nitrogen toxicity, nitrate, heavy metals and low dissolved oxygen.

7.5.2 Ecosystems and Indigenous Species

Eutrophication Effects

The previous Wildlands Consultants vegetation surveys observed no changes that can reliably be attributed to an in increase in eutrophication. In both 2016 and 2019 the nutrient content of the plant material indicated nitrogen limitation, but not phosphorus limitation at

both the control and impact sites. There was deemed to be no statistically significant difference between these sites and between the years.

It is anticipated that the significant degree of dilution afforded to the wastewater is such that any impact of additional nutrients is sufficiently limited that it is unable to be measured. The large amount of vegetation present rapidly assimilates large amounts of the nutrients.

WSP Consultants reviewed previous reports regarding potential eutrophication risks in the Waimango wetland. They concluded that implementing any of the BPO options would result in modest improvements to a number of parameters (see Fig 4.1). Consequently, measurable change in the receiving environment due to eutrophication is unlikely. However, continuing to conduct vegetation surveys is recommended to ensure this is the case.

Total Suspended Solids and Biological Oxygen Demand

The treatment plant outlet discharge is regularly non-compliant with the consented concentration of 30 mg/L TSS. The suspected cause of high TSS is suspended algae. Sample results from 19 November 2024 and 29 January 2025 indicated the majority of TSS was volatile (VSS) (i.e. able to be burned off under high temperature) and so could be organic consistent with it being algal in nature.

Biological oxygen demand is generally well below the consented median of 30 mg/L, with results from FNDC indicating a median over a three-year period of 9.2 and a maximum of 19 mg/L. WSP Consultants concluded that low biological oxygen demand is likely to be low at Site 2. However, they did not categorically conclude that dissolved oxygen concentrations are at suitable levels for aquatic life.

WSP Consultants recommended that spot measurements of dissolved oxygen should be measured within the zone of reasonable mixing to ensure depressed dissolved oxygen is not having adverse effects on the aquatic organisms. However, FNDC has concerns about the health and safety of treatment plant operators and NRC monitoring staff if they are required to enter the wetland to conduct monitoring. FNDC would prefer more intensive treatment plant outlet monitoring as an alternative to additional wetland monitoring.

7.5.3 Public Health

Contact Recreation

The NRC post UV discharge monitoring results showed median faecal coliforms of 20.5 cfu/100 mL, and a maximum of 55 cfu/ 100ml. This represents very low faecal contamination. Table 9 of the NPSFM for example requires a median concentration of less than 130 *E. coli* / 100mL and 95th percentile of less than 540 *E. coli* / 100mL. The post UV results were also significantly lower than the RPN contact recreation upper limits for infrequent use of 576 *E.* coli / 100mL.

These results are indicative of a well-functioning and effective sterilisation treatment. Increased concentrations further along the discharge drain can be reasonably explained by the presence of wildfowl.

Contact recreation immediately downstream of any municipal wastewater discharge is not recommended. However, contact is unlikely to occur at this site due to the difficult access.

7.6 Cultural Effects

Proposed Regional Plan for Northland policy *F.1.9 Tāngata whenua role in decision-making* requires that Tāngata whenua's kaitiaki role is recognised and provided for in decision making over natural and physical resources.

FNDC acknowledges Haititaimarangai marae Hapu Management Plan and has engaged directly with representatives from Ngati Kahu Station 438 Ahuwhenua Trust, Haititaimarangai Marae 339 Trust, and Haititaimarangai Ahuwhenua Trust.

In person hui, online meetings and email were used to share information about treatment plant performance, potential effects of the treatment plant discharges and upgrade options.

A cultural impact assessment (CIA) was commissioned. Due to s.124 RMA timeframes, FNDC was not able to receive and workshop the CIA with Tāngata whenua prior to lodging this application. It is not appropriate for FNDC to comment on or assess cultural effects without input from kaitiaki.

Consequently, FNDC anticipates suspending the application pursuant to s.37, s.92 and or s.91A to enable further engagement with Tāngata whenua.

7.7 Assessment of Effects Conclusion

Cultural Effects - At time of lodging FNDC was awaiting the provision of a cultural impact assessment and was unable to provide a full assessment of cultural effects. However, FNDC acknowledge that the discharge of treated wastewater to water is contradictory to tikanga. FNDC anticipates consent conditions relating to working with Tangata whenua to identify and resolve adverse cultural effects.

Record of Compliance - Discharge sampling results for the existing W-WWTP have reliably complied with consent conditions except for TSS. Previous ecological monitoring in the Waimango Swamp did not find any evidence that the discharge was causing an adverse effect on the ecological functioning of the wetland.

Proposed Improvement - FNDC commissioned WSP Consultants to provide technical advice regarding the nature and scale of odour, water quality, public health, flood hazard and ecological risks. WSP Consultants provided recommendations regarding consent conditions and treatment plant improvement options.

Subject to compliance with proposed consent conditions, and implementation of treatment plant improvements, the quality of wastewater discharged from the W-WWTP will improve. The adverse effects on the wider environment will be no more than minor.

8 Notification Assessment – Sections 95A to 95G of the RMA

8.1 Public Notification Assessment

In accordance with s.95A(3)(a) of the Act, the applicant requests that this application be publicly notified.

8.2 Limited Notification Assessment

In accordance with section 95B (1), this application does not need to be limited notified because the applicant has requested public notification.

8.3 Adjacent Land

The following land is adjacent to the subject site.

Legal Description	Owners
Lot 1 DP 148402	Landcorp Holdings Ltd
Lot 1 DP 413387	Carrington Farms Jade LP

Figure 8.1 Location of Adjacent Land

No written approvals have been provided with the application.

8.3 Consultation and Engagement

Section 36A of the RMA states that there is no duty under the RMA to consult on resource consent applications. However, in practice consultation and engagement is recommended because it enables applicants to understand whether the proposed activity is consistent with the purpose and principles stated in Part 2 of the RMA.

FNDC did not engage directly with the wider community regarding this resource consent application because:

- The treatment plant is generally compliant
- Has not been the subject of customer complaints and
- Expert technical evidence determined that effects on the wider environment were no more than minor.

FNDC has chosen to publicly notify the application. This will give the wider community an opportunity to raise relevant matters. Information about the potential effects of the treatment plant discharges and upgrade options was published on the FNDC website prior to lodging with Northland Regional Council.

FNDC engaged directly with representatives from Ngati Kahu Station 438 Ahuwhenua Trust, Haititaimarangai Marae 339 Trust, and Haititaimarangai Ahuwhenua Trust to commission a cultural impact assessment (see section 7.6). At time of lodging the CIA had not been received. FNDC anticipates continued engagement with Tangata whenua to address matters raised in the CIA.

FNDC's approach to consultation and engagement is outlined in Appendix E Consultation Approach. FNDC anticipates future engagement, via the CIA, submissions, or other means, to inform the recommendation on the Best Practicable Option for treatment and discharge improvements.

9 Statutory Assessment

9.1 Part 2 of the Act

The High Court decision in *Davidson Family Trust and Marlborough District Council* confirmed the Environment Court decision and the Court of Appeal decision held that there is a requirement to have regard to Part 2 when determining Resource Consent applications. However, this may be achieved by relying on planning documents that have passed the King Salmon test or by direct referral to Part 2 by the decision maker. The *King Salmon* test applies to Resource Consent applications, where the planning documents are invalid, have incomplete coverage or uncertainty of meaning. Where the coverage by National and Regional Policies and Plans fails this test the decision maker should refer to Part 2 for assistance in determining the application. This application has considered the relevant statutory documents (see section 9.3) and determined that coverage is both complete, certain and clear. However, for ease of reference the relevant Part 2 s.5-8 matters are copied below.

5 Purpose

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—

> *(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
> *(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
> *(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

6 Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

> *(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*
> *(b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*
> *(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*
> *(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
> *(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:*
> *(f) the protection of historic heritage from inappropriate subdivision, use, and development:*

(g) the protection of protected customary rights:
(h) the management of significant risks from natural hazards.

7 Other matters

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—

(a)kaitiakitanga:
(aa) the ethic of stewardship:
(b) the efficient use and development of natural and physical resources:
(ba) the efficiency of the end use of energy:
(c)the maintenance and enhancement of amenity values:
(d) intrinsic values of ecosystems:
(e)[Repealed]
(f) maintenance and enhancement of the quality of the environment:
(g) any finite characteristics of natural and physical resources:
(h) the protection of the habitat of trout and salmon:
(i) the effects of climate change:
(j) the benefits to be derived from the use and development of renewable energy.

8 Treaty of Waitangi

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

9.2 Section 104(1)(a) of the Act

Section 104(1)(a) requires that when considering an application for a resource consent, the consent authority must, subject to Part 2, have regard to 'any actual and potential effects on the environment of allowing the activity'. An assessment of the adverse effects of the proposal is set out in Section 7 above, where it was considered the adverse effects on the environment were no more than minor.

9.3 Section 104(1)(b) of the Act

Clause 2 in Schedule 4 of the RMA requires an assessment of the activity against any relevant provisions in section 104(1)(b) and (c).

When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2 and section 77M, have regard to…

(b) any relevant provisions of—
(i) a national environmental standard:
(ii) other regulations:
(iii) a national policy statement:
(iv) a New Zealand coastal policy statement:
(v) a regional policy statement or proposed regional policy statement:
(vi) a plan or proposed plan; and
(c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

The relevant statutory documents are tabled below.

Document	Refer to:
National Policy Statement for Freshwater Management 2020 – Amended 2024 (NPS FM)	Section 9.2.1
New Zealand Coastal Policy Statement 2010 (NZCPS)	Section 9.2.2
Regional Policy Statement for Northland 2016 (RPS)	Section 9.2.3
Proposed Regional Plan for Northland 2024 (PRPN)	Section 9.2.4

An assessment of the relevant statutory documents that corresponds with the scale and significance of the effects that activity may have on the environment has been provided below. This assessment should be read in conjunction with Appendix D– Relevant Policies and Objectives.

National Policy Statement for Freshwater Management 2020 (Amended 2024)

The W-WWTP discharges into a wetland. Consequently, it is relevant to consider the NPS FM. The relevant policies of the NPS FM are tabled in Appendix D.

The 15 policies and the implementation framework of the NPSFM 2020 have now largely been given effect to within the PRPN. Consequently, an in-depth analysis against the NPSFM is unnecessary due to the more specific provisions contained in the PRPN. However, an assessment of the proposed activity against the relevant policies is provided below to demonstrate alignment. Policies 1, 2, 3, 4, 6, 9, 12, 13, 14, and 15 are particularly relevant

Policy 1 and 2 are about Te Mana o te Wai and actively involving Tangata Whenua in the decision-making process so that Māori values are identified and provided for. FNDC worked with Haititaimarangai Marae to commission a cultural impact assessment.

Policy 3, 4, 6, 9 and 12 are about managing effects on receiving environments, climate change, wetland values, freshwater species and national targets for water quality. WSP Consultants investigated the current treatment process, water quality requirements and environmental impacts. Proposed consent conditions were recommended to improve water quality and maintain the condition of the freshwater and wetland environment.

Policy 12 and 13 are about monitoring trends and sharing information about the state of freshwater ecosystems. Monitoring was conducted by the treatment plant operator and WSP consultants to determine the current state of the receiving environment. Also to develop proposed monitoring conditions.

Policy 15 is about enabling communities to provide for their social, economic and cultural wellbeing. FNDC is working with stakeholders to investigate alternative options for providing wastewater treatment and discharge. It was determined that by WSP Consultants that any of the proposed treatment upgrades would improve the quality of the discharge.

The proposed activities are consistent with the NPS FM because they will enable the community to meet their social and economic needs while sustainably managing effects on the Waimango Swamp and working with Tangata Whenua to ensure cultural values are provided for.

National Coastal Policy Statement 2010 (NZCPS)

The W-WWTP activities and discharge are not located in the CMA. However, the NZCPS is still considered relevant due to the potential for effects within the coastal environment. The relevant provisions of the NZCPS are tabled in Appendix E.

The New Zealand Coastal Policy Statement (NZCPS) took effect on 3 December 2010 and provides national direction for the management of the coastal environment. 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*.

Similarly to the NPSFM, the PRPN gives regional and local effect to the NZCPS. Consequently, an in-depth analysis of the NZCPS has not been carried out. However, an assessment of the proposed activity against the relevant policies is provided below to demonstrate alignment. Objectives 3 and 5, and Policies 2, 6, 11, 23 and 25 are particularly relevant.

Objective 3 and Policy 2 are about recognising a providing for Tangata Whenua involvement in the management of the coastal environment. FNDC worked with Haititaimarangai Marae to identify potential adverse effects and develop proposed consent conditions to avoid or mitigate adverse effects on the coastal environment.
Objective 5 and Policy 25 are about managing coastal hazard risks. WSP Consultants assessed the risk of the W-WWTP being affected by coastal flood hazards (Appendix H). It was determined that the W-WWTP is not at risk therefore managed retreat or relocation does not need to be considered.

Policy 6 is about activities in the coastal environment. It acknowledges that the provision of infrastructure is important for the economic and social wellbeing. WSP Consultants considered the location of the W-WWTP (Appendix J). The proposed activity is a cost-effective option for providing wastewater infrastructure that protects both human health and the environment.

Policy 11 and 23 are about indigenous biodiversity and the discharge of contaminants in particular human sewage. WSP Consultants conducted an ecological assessment and a water quality and public health risk assessment (Appendix H). The quality and quantity of treated effluent discharging to Waimango swamp is within the assimilative capacity of the

environment and adverse effects on indigenous biodiversity will be no more than minor. FNDC considered alternative options (Appendix H).

The proposed activities are consistent with the NZCPS because the infrastructure is located away from coastal hazards, supports economic and social wellbeing and mitigates effects on indigenous biodiversity.

Regional Policy Statement for Northland 2016

The purpose of a regional policy statement is set out in Section 59 of the Act, which states:

> *The purpose of a regional policy statement is to achieve the purpose of the Act by providing an overview of the resource management issues of the region and policies and methods to achieve integrated management of the natural and physical resources of the whole region.*

The RPS was made operative in 2016 and gives effect to the NZCPS 2010. The relevant RPS provisions have been tabled in Appendix E. The relevant provisions have been carried through to the PRPN 2024. Consequently, an in-depth assessment of the proposed activities against the RPS is not required. However, a summary of the relevant policies is provided below to demonstrate alignment. Objectives 3.2, 3.4, 3.5, 3.7, 3.8, 3.12, and 3.13 and Policies 4.2, 4.4, 5.3, 5.2, 8.1, 8.2, 7.1, and 7.2 are particularly relevant.

Objective 3.2 and Policy 4.2 seek an overall improvement in water quality. The proposed activity includes improvements to the treatment process that will further reduce the level of contaminants in particular total suspended solids (TSS), ammonia and phosphate. (Appendix H).

Objective 3.4 and Policy 4.4 are about maintaining or enhancing indigenous ecosystems in the coastal environment. WSP Consultants conducted an ecological assessment of Waimango Swamp (Appendix H). The proposed activity will not cause degradation of the indigenous ecosystem and is therefore consistent with this policy.

Objective 3.5 seeks to ensure that Northland's natural and physical resources (including infrastructure) are sustainably managed in a way that is attractive for business and investment that will improve the economic wellbeing of communities. FNDC considered the economic and environmental impacts of several wastewater treatment and disposal options (Appendix H). The proposed activity is consistent with this policy because it achieves environmental outcomes while considering affordability for the community.

Objective 3.7 and Policy 5.3 are about enabling regionally significant infrastructure. This is relevant because Section H9 of the PRPN defines regionally significant infrastructure as including:

> *"Regional and district council wastewater trunk lines and treatment plants and key elements of the stormwater network, including treatment devices".*

Policy 5.3 specifies that reconsenting of existing regionally significant infrastructure should allow for activities provided they are consistent with specified policies, are within water

quality limits, do not damage the relationship of tangata whenua with their customary sites and values, and adverse effects are avoided to the extent that they are no more than minor. The assessment of environmental effects in Section 7.2 demonstrates that the proposed activity is consistent with parts of this policy. Further engagement with Tangata Whenua is required to identify customary sites and values.

Objective 3.8 and Policy 5.2 are about the affordability and effectiveness of infrastructure directing that infrastructure should be flexible, resilient and adaptable to the reasonably foreseeable needs of the community. The proposed activity is consistent with this policy because these factors were considered in the BPO assessment (see Appendix H).

Objective 3.12 and Policies 8.1 and 8.2 are about Tangata Whenua participation in decision making, consenting and monitoring. A cultural impact assessment (CIA) was commissioned to identify potential adverse effects. At time of lodging the CIA had not been received. FNDC anticipates jointly developing consent conditions to avoid, remedy or mitigate the adverse effects of the activity on Tangata Whenua.

Objective 3.13 and Policies 7.1 and 7.2 seek to minimize the risks and impacts of natural hazards by avoiding development in hazard prone areas. The proposed activity is consistent with these policies because the W-WWTP is not located within an area adversely affected by hazards (see Appendix G).

The proposed activity is consistent with the RPS because it safely enables affordable regionally significant infrastructure within ecological and water quality limits while including Tangata Whenua in decision-making.

Proposed Regional Plan for Northland 2024

The purpose of a regional plan is set out in Section 63 of the Act which states,

> *(1) The purpose of the preparation, implementation, and administration of regional plans is to assist a regional council to carry out any of its functions in order to achieve the purpose of this Act.*
> *(2) Without limiting subsection (1), the purpose of the preparation, implementation, and administration of regional coastal plans is to assist a regional council, in conjunction with the Minister of Conservation, to achieve the purpose of this Act in relation to the coastal marine area of that region.*

Pursuant to Section 67 of the Act, a Regional Plan must give effect to any national policy statement, New Zealand coastal policy statement, national planning standard and any regional policy statement. This application assumes that the PRPN gives effect to the higher order documents and that activities that are consistent with PRPN objectives and policies are consistent with the purpose of the Act.

The objectives and policies of the Proposed Regional Plan for Northland (February 2024) that are relevant to the proposed discharge activities are set out below.

Land and Water

Provision	Assessment
Objective F.1.2 Water Quality	The proposed activity is consistent with the Objective F.1.2 Water Quality because:
D.4.1 Maintaining overall water quality	The proposed activity includes upgrades to the treatment plant that will lead to an overall improvement in water quality (see section 4 and 7).
D.4.4 Zone of reasonable mixing	An appropriate zone of reasonable mixing has been identified for the proposed monitoring schedule (See section 7.2.4 and Appendix H & K). WSP Consultants sampled water quality at three locations in the receiving environment. No sign of acute toxicity was detected.
D.4.22 Natural wetlands – requirements	WSP Consultants conducted a water quality and ecological assessment of the wetland that receives the discharge. They compared water quality at the boundary of the W-WWTP site with nearby Lake Waiporahita. The results indicate that the W-WWTP is adding nutrient load relative to background levels. However, previous vegetation surveys have not found any discernible effect on wetland habitat or function (See section 7.2.4 and Appendix H). Subject to conditions of consent requiring treatment plant upgrades and monitoring, the adverse effects on the function and values of the Waimango Lagoon will be no more than minor.

Indigenous Biodiversity and Ecosystems

Provision	Assessment
F.1.3 Indigenous ecosystems and biodiversity	The proposed activity is consistent with Objective F.1.3 Indigenous Ecosystems and Biodiversity because:

D.2.18 Managing adverse effects on indigenous biodiversity	Subject to proposed conditions of consent relating to treatment plant upgrades and performance, the adverse effects on the values identified in D.2.18 will be no more than minor (see section 7.2 and Appendix H).
D.2.20 Precautionary approach to managing effects on significant indigenous biodiversity and the coastal environment	The W-WWTP has operated under the current consent since 2011. Treatment plant performance has been regularly monitored and reliably compliant. The likely effects of the proposed discharge are known. Vegetation surveys, periodically conducted by Wildlands Consultants since 2011, have not detected any significant effects on the wetland.

Enabling Economic Wellbeing

Provision	Assessment
F.1.5 Enabling economic well-being	The proposed activity is consistent with Objective F.1.5 Enabling Economic Wellbeing because:
D.2.2 Social, cultural and economic benefits of activities	FNDC investigated options for improving wastewater treatment at the W-WWTP. The proposed treatment plant upgrade options are efficient and effective ways to ensure wastewater from the Whatuwhiwhi community is treated to a standard that protects the wellbeing of the community.

Regionally Significant Infrastructure

Provision	Assessment
F.1.6 Regionally Significant Infrastructure	This objective enables the development, operation and upgrading of Regionally Significant Infrastructure. The W-WWTP meets the definition of Regionally Significant Infrastructure. The proposed upgrade and operation of the W-WWTP positively contributes to achieving this objective.

D.2.5 Benefits of Regionally Significant Infrastructure	This policy directs that particular regard must be given to the benefits of the W-WWTP. Benefits include: • Enabling compact urban form by reticulating wastewater disposal within the existing area of benefit. • Treating wastewater to a high standard so human and environmental health is protected. • Operating a cost-effective treatment plant to keep ratepayer costs low.
D.2.7 Minor adverse effects arising from the establishment and operation of Regionally Significant Infrastructure	This policy enables reconsenting for treatment plant operations provided the proposal is consistent with policies relating to Tāngata whenua, heritage, character, landscape and indigenous biodiversity and the adverse effects are no more than minor. As assessment of these policies is provided in section 9.2.4 of this report. The proposed upgrade and operation of the W-WWTP is consistent with the stated policies. An assessment of the adverse effects is provided in section 7 of this report. The adverse effects of the proposed upgrade and operation of the W-WWTP will be no more than minor. Because the proposal is consistent with the specified policies, and the adverse effects will be no more than minor, the proposed activity is consistent with Policy D.2.7.
D.2.8 Maintenance, repair and upgrading of Regionally Significant Infrastructure	This policy enables maintenance and upgrading of the W-WWTP provided: • Adverse effects that occur while the upgrade is being carried out are temporary. • Adverse effects after completion of the upgrade are similar to before the upgrade was undertaken. FNDC considered several options for upgrading the W-WWTP. When the upgrade is completed the adverse effects on the environment will be less than before the upgrade.

Tāngata Whenua

Provision	Assessment
F.1.9 Tāngata whenua role in decision-making	FNDC has commissioned a cultural impact assessment. It is not appropriate to complete this policy assessment until the CIA has been received and workshopped with Tangata Whenua.
D.1.1 When an analysis of effects on tāngata whenua and their taonga is required	Awaiting CIA
D.1.2 Requirements of an analysis of effects on tāngata whenua and their taonga	Awaiting CIA
D.1.3 Affected Persons	Awaiting CIA
D.1.4 Managing effects on places of significance to tāngata whenua	Awaiting CIA
D.1.5 Places of significance to tāngata whenua	Awaiting CIA

Natural Hazard Risks

Provision	Assessment
F.1.10 Natural hazard risk	This objective is about ensuring that 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. Technical experts from WSP Consultants have reviewed the available data about climate change scenarios and coastal flood hazards (Appendix G). A small area of the site is within a coastal flood overlay. However, the infrastructure itself is not at risk.
D.2.3 Climate change and development	This policy requires that regard be had to potential effects of climate change when considering proposed developments. The proposed treatment plant upgrades will be designed with reference to national guidance and climate change projections (Appendix G and section.4).

Air Quality

Provision	Assessment
F.1.13 Air Quality	This objective is about protecting health, amenity, cultural values and the environment from significant adverse effects caused by discharges to air. The proposed activity is consistent with this objective because:
D.3.1 General approach to managing air quality	The existing and potential adverse odour effects were assessed with reference to Good Practice Guide for Assessing and Managing Odour MFE 2016 (Appendix F).
D.3.2 General approach to managing adverse effects of discharges to air	The adverse effects beyond the boundary of this site will be less than minor (section 7.3). This is an existing discharge that should be allowed to continue.
D.3.4 Dust and odour generating activities	Odour from WWTPs occurs when the treatment process is insufficiently aerated. If operated in accordance with the Wastewater Management Plan (Appendix J) and in accordance with proposed consent conditions, offensive odour will not occur beyond the boundary of the site.

Character, Amenity and Heritage

Provision	Assessment
F.1.12 Natural Character, Outstanding Natural Features, Historic Heritage and places of significance to tāngata whenua	This objective is about protecting the character, amenity and heritage values, and sites of significance to tāngata whenua, from inappropriate use and development. The proposed activity is consistent with this objective because: • The activity is not in or near any sites of significance or sites with s.6 values (see section 5). • The adverse effects of the proposed activity beyond the boundary will be minor (see section 7).

General

Provision	Assessment
D.2.1 Rules for managing natural and physical resources	This policy directions regulators to include rules that support good management practises, minimise compliance costs, use performance standards to consider effects and enable activities that are consistent with National and Regional Policy direction. This policy identifies themes that are relevant when assessing this application and setting consent conditions. Compliance costs are a significant economic burden for ratepayers. The proposed conditions of consent support good management practise and will enable the W-WWTP to comply with performance standards and will keep compliance costs low.
D.2.4 Adaptive management	The environment beyond the boundary of the site is difficult to safely access and monitor (Appendix H). Additional environment monitoring will not meaningfully inform management practise and increases compliance costs. Enhanced treatment and improved discharge quality is FNDC's preference (Appendix K).
D.2.14 Resource consent duration	This policy directs that previous compliance history and security of tenure and certainty about effects should be considered when determining consent duration. Consent is sought for 15 years. The proposed consent duration balances the need for security of tenure with the possibility of population change and changes to policy direction.
D.2.15 Recognising other plans and strategies	FNDC has obligations under the Local Government Act 2002 (LGA). The proposed activity has been designed with reference to the Long-Term Plan budgets for treatment plant improvements.

Section 104(1)(b) Summary

The above assessments demonstrate that the proposal is consistent with the relevant objectives and policies and assessment criteria of the relevant statutory documents.

9.4 Section 104(1)(c) of the Act

Section 104(1)(c) of the Act states that consideration must be given to “any other matters that the consent authority considers relevant and reasonably necessary to determine the application.

FNDC considers the Haititaimarangai Marae Hapu Management Plan to be a relevant document for the consent authority to consider. FNDC has commissioned a CIA to better understand how the management of the W-WWTP can be modified to take the hapu management plan into account.

9.5 Section 104 (2A)

Section 104 (2A) requires that when considering an application affected by section 124, the consent authority must have regard to the value of the investment of the existing consent holder.

In this case, FNDC operates the W-WWTP on behalf of the communities of Whatuwhiwhi and Tokerau Beach. The replacement value of the W-WWTP is $5,591,577 plus land value of $96,000.

The annual operating costs are tabled below.

19/20	20/21	21/22	22/23	23/24 (unaudited)
$123,694.98	$131,037.71	$167,986.42	$242,987.62	$456,563.15

FNDC, on behalf of ratepayers, has made a considerable investment in the construction and operation of the existing wastewater treatment plant. The ongoing operation of the plant is essential to provide sanitary sewerage disposal and protect human and environmental health. If consent is not granted there would be considerable economic hardship for ratepayers required to fund a lawful alternative.

10 Conclusion

FNDC is applying for resource consent from NRC for discharges to land, air and water associated with the W-WWTP. This will include a discharge of treated wastewater to a wetland tributary of Waimango Swamp. Consent is sought for a term of 15 years (see section 4 of this report).

The existing treatment plant has been reliably compliant with consent conditions and previous monitoring has not identified any adverse effects on the wider environment that are more than minor (see section 3).

FNDC commissioned WSP Consultants to provide technical advice on the scale of potential effects and to recommend mitigation measures (see section 7 and Appendices). WSP concluded that, subject to compliance with proposed consent conditions, and implementation of treatment plant improvements:

- The quality of wastewater discharged from the W-WWTP will improve.
- Odour effects will be no more than minor
- The W-WWTP will not adversely effect, or be affected by, flood hazard risks.
- There is currently no evidence of the discharge adversely affecting the ecology of the Waimango Swamp.
- The adverse effects on the wider environment will be no more than minor.

To minimise actual and potential adverse effects, and to remain consistent with policy direction, FNDC is proposing ongoing engagement with stakeholders and technical experts to identify and implement an affordable treatment plant upgrade option.

The Applicant requests that the application be notified in accordance with Section 95A(3)(a) of the Act. This is to enable the community to raise any relevant issues.

Engagement with Tangata Whenua is ongoing. A cultural impact assessment and the outcome of engagement will be forwarded to NRC. An extension of time is requested to enable this engagement to occur (see section 8).

FNDC considered the relevant statutory documents including the NZCPS, NPSFM, RPS and PRPN and the Haitaimaranga Marae Hapu management Plan (see section 9). The proposed activity is for Regionally Significant Infrastructure required to support the social, economic and environmental wellbeing of the community of Whatuwhiwhi. The proposed activity is consistent with the statutory requirements and purpose of the RMA.

11 References

Wildlands Consultants Limited, “Vegetation monitoring in the Waimango Wetland, at the outlet of the Whatuwhiwhi Wastewater Treatment Plant,” Contract Report No. 3256 for Far North District Council, Kaikohe, 2013.

Wildlands Consultants Limited, “Monitoring of wetland vegetation adjacent to the Whatuwhiwhi Wastewater Treatment Plant outlet,” Contract Report No. 3782 prepared for Far North District Council, Kaikohe, 2016.

Wildlands Consultants Limited, “Monitoring of wetland vegetation adjacent to the Whatuwhiwhi Wastewater Treatment Plant outlet,” Contract Report No. 3782a prepared for Far North District Council, Kaikohe, 2019.

Wildlands Consultants, “Ranking of Top Wetlands in the Northland Regional, Stage 4 Ranking of 304 Wetlands,” Contract report No. 2489 for Northland Regional Council, 2011.

L. Conning and W. Holland, “Natural areas of Aupouri Ecological District,” Department of Conservation, Whangarei, 2003.

N. Glover, “Whatuwhiwhi Baseline Vegetation Survey,” Opus International Consultants Limited, Kerikeri, 2007.

APPENDIX A

Prescribed Application Forms

APPENDIX B

Records of Title

APPENDIX C

Current Resource Consents

APPENDIX D

Relevant Objectives and Policies

APPENDIX E

Consultation Record

APPENDIX F

Air Quality and Odour Assessment

APPENDIX G

Flood Hazard Risk Assessment

APPENDIX H

Water Quality and Public Health Risk Assessment

APPENDIX J Wastewater Management Plan

APPENDIX K Proposed Consent Conditions