OPUS

Katikati Wastewater Treatment Plant

Resource Consent Application and Assessment of Environmental Effects

ORIGINAL

Katikati Wastewater Treatment Plant

Resource Consent Application and Assessment of Environmental Effects

Prepared By

Stephanie Brown
Principal Environmental Consultant

Reviewed By

Brent Hamilton
Principal Environmental Consultant

Opus International Consultants Ltd
Gartshore House Level 3
116 Cameron Road
PO Box 646, Tauranga 3140
New Zealand

Telephone: +64 7 308 0139
Facsimile: +64 7 308 4757

Date: 13 May 2016
Reference: 3-38771.00
Status: Final

Form 9
Application for Resource Consent

Pursuant to Section 88 of the Resource Management Act 1991 (RMA)

TO: **BAY OF PLENTY REGIONAL COUNCIL**
Resource Consents
PO Box 364
Whakatane 3158

FROM: **WESTERN BAY OF PLENTY DISTRICT COUNCIL**
Private Bag 12803
Tauranga Mail Centre
Tauranga 3143

(NOTE: address for service given below)

1. **Western Bay of Plenty District Council (WBOPDC) applies for the following types of resource consent:**

Consent Type	Activity	Term Sought
Air Discharge Permit – s15	Discharge of odour to air from a wastewater treatment plant	35 years
Coastal Permits – s12	Occupation of the Coastal Marine Area by structures and use of structures	20 years
	Erection of a new diffuser and associated disturbance of the works to the Coastal Marine Area	5 years
	Disturbance to the Coastal Marine Area to allow investigation and inspections of the pipeline	20 years
	Discharge of treated wastewater to the Coastal Marine Area	20 years

2. **The location to which the application relates is:**

Katikati Wastewater Treatment Plant at Prospect Drive, Katikati and the coastal marine area along the pipeline route from the treatment plant site across Tauranga Harbour to off Matakana Island (refer Assessment of Environmental Effects for further detail).

3. **A description of the activity to which the application relates is:**

The continued operation of the existing Katikati Wastewater Treatment Plant and associated discharge of treated wastewater to the coastal marine area (including the occupation of the coastal marine area by the pipeline structure, the installation of a new diffuser on the outfall, and ongoing investigations of the pipeline).

4. **Duration of Consent sought**

The duration of the consents sought are included in the table under section 1 above.

5. **The names and addresses of the owner and occupier of the land to which the application relates are as follow:**

Owner / Lessee	Address
Treatment Plant Site – Western Bay of Plenty District Council	Private Bag 12803 Tauranga Mail Centre Tauranga 3143
Coastal marine area - Crown	

6. **The following additional resource consents and approvals are required in relation to the proposal and have been applied for:**

No additional consents are required. Approval is likely to be required from the Harbourmaster for the marker buoy.

7. **Attached is an assessment of the proposed activity's effect on the environment that—**

a) **includes the information required by clause 6 of Schedule 4 of the Resource Management Act 1991; and**
b) **addresses the matters specified in clause 7 of Schedule 4 of the Resource Management Act 1991; and**
c) **includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.**

8. **Attached is an assessment of the proposed activity against the matters set out in Part 2 of the Resource Management Act 1991.**

9. **Attached is an assessment of the proposed activity against any relevant provisions of a document referred to in section 104(1)(b) of the Resource Management Act 1991, including the information required by clause 2(2) of Schedule 4 of the RMA.**

10. **The value of the investment of the existing consent holder is** approximately $22 million based on replacement value.

11. **Attached is an assessment of the proposed activity against the resource management matters set out in** the New Zealand Coastal Policy Statement, the Regional Policy Statement, the Operative and

Proposed Regional Coastal Environment Plan, the Regional Air Plan and Matakana and Rangiwaea Islands Hapu Management Plan

12. **Attached is the following further information required to be included in this application by the district plan, the regional plan, the Resource Management Act 1991, or any regulations made under that Act:**

A description of the proposed activity and an assessment of the environmental effects is included in the AEE Report, and supporting Appendices, which are attached to and form part of this application.

Pursuant to authority delegated by
the Western Bay of Plenty District Council

11/5/2016
Date:

Address for Service:

C/- Opus International Consultants Ltd
PO Box 646
Tauranga 3140

Attention: Stephanie Brown
Phone: 0274 399 198
Email: stephanie.brown@opus.co.nz

Contents

1 Introduction

1.1 Overview

The Applicant, Western Bay of Plenty District Council (WBOPDC), seeks resource consents to enable the continued discharge of treated wastewater from the Katikati Wastewater Treatment Plant (WWTP) to the coastal marine area off Matakana Island.

The WWTP currently comprises primary treatment including screens and grit removal, secondary treatment which includes two aerated ponds and a floating wetland and treated wastewater disinfection consisting of ultraviolet (UV) treatment. The treated wastewater is discharged via an ocean outfall approximately 650m offshore from Matakana Island. For this proposal, the term 'Katikati Wastewater Treatment Scheme' (or ("Scheme") has been adopted to refer to all these components.

WBOPDC currently holds resource consent for the discharge of contaminants for the WWTS. Resource Consent 24895 allows for the discharge of up to 3000m3/day of treated wastewater to the Pacific Ocean off Matakana Island. Resource consent 30136 authorises the discharge of contaminants to air (odour) from the WWTP site.

The current resource consents expire in November 2016. In order for WBOPDC to continue to operate the Scheme in accordance with the existing resource consents until new consents are issued, applications for new consents (in accordance with section 124 of the Resource Management Act (RMA)) need to be lodged no later than the 30th May 2016. As this application is being made at least 6 months before expiry of the existing consents the consent holder can continue to operate under the existing consents until a decision is made and all appeals determined.

The continued operation of the WWTP itself is authorised via an existing designation and no amendments are required to that designation or its conditions.

The consents being sought will allow the continued operation of the Scheme, which has been upgraded in the past 12 months. As part of this consent application WBOPDC is also seeking consents to allow it to implement an upgrade to the existing outfall pipe, being the installation of a new diffuser at the end of the outfall. Consents are also being sought to enable WBOPDC to undertake investigations of the pipeline on an ongoing basis. WWTP renewals and associated infrastructure upgrades (eg. pump station works) are proposed as part of normal asset management over the next 10 years. Collectively these elements for which consents are being sought are referred to in this application as the "Proposal".

WBOPDC seeks a 35 year consent terms for the discharge to air from the WWTP, and a term of 20 years for the consents associated with the continued discharge to the ocean on the basis that the Council intends to implement an alternative discharge solution at the end of the 20 year term.

There is a significant and contentious history to the ocean outfall. It was built by the Katikati Cooperative Dairy Company in the late 1970s and purchased by the now WBOPDC in 1984 and in the past the pipeline was used to discharge untreated raw sewerage into the ocean.

Tangata whenua and those on Matakana Island in particular have long opposed the presence of and discharge from the pipeline, and this matter was canvassed in the Tauranga Moana Waitangi Tribunal process. The treatment of wastewater has been significantly improved and the evidence to date demonstrates little environmental impact. However WBOPDC acknowledges tangata whenua's view that any level of discharge of human effluent into water is offensive.

The current resource consent required WBOPDC to investigate alternative disposal options with a 'best endeavours' clause seeking cessation of use of the ocean outfall at expiry of the consent. The assessments undertaken concluded that continued use of the outfall was the most appropriate option.

WBOPDC has an obligation under the Local Government Act 2002 to provide good-quality and efficient local infrastructure in a cost-effective manner (s10). Wastewater schemes are essential. The pipeline is a significant piece of infrastructure and its continued use constitutes an efficient use of existing physical resources over the next 20 years.

However, a number of parties and tangata whenua in particular feel strongly that the current disposal method should have already been discontinued and an alternative found. WBOPDC is committed to investigating an alternative to address these concerns and also in order to ensure that there is an alternative measure put in place prior to the end of the engineering life of the pipeline. WBOPDC is proposing conditions that require it to investigate and implement an alternative. The form of the conditions and the process they require has been improved from the last set of conditions and there are clearer checks and balances. Further, to demonstrate its commitment to this process WBOPDC is about to commence the process of setting up the liaison group it has proposed under the consent conditions.

Under s.95A(1) of the RMA a consent authority has discretion in deciding whether to publicly notify an application for resource consent. WBOPDC requests public notification.

1.2 Purpose of AEE Report

The purpose of this report is to provide an Assessment of Effects on the Environment (AEE) to accompany resource consent applications for the Proposal, in accordance with section 88 and Schedule 4 of the Resource Management Act 1991 (the RMA).

1.3 Structure of this Application

The application comprises two volumes: a) this AEE report, including the forms and b) the supporting technical reports. The matters covered include:

Statutory Forms and AEE Report

- A description of the context of the Proposal, including a description of the history
- A description of the operation of the Proposal
- A description of the existing environment, including a description of the receiving environment (for the discharges)
- A description of consultation undertaken in the development of the Proposal and how this has influenced the application
- An assessment of the actual or potential effects on the environment of the operation and maintenance of the Proposal, including a description of proposed mitigation measures.
- An assessment of the proposal against relevant provisions of statutory policies and plans
- Proposed Resource Consent Conditions.

Volume B: Supporting Reports

The key technical and environmental reports relied on in the AEE and appended in Volume B include:

- Pipeline: URS 2012 Hydraulic Testing Report
- Consideration of Alternatives
- Cultural Impact Assessments

- Ecology: Environmental Effects of the Katikati Wastewater Outfall on the Receiving Environment
- Ecology: Kingett Mitchell, Survey of the Katikati Outfall Environment 2006

1.4 Existing Statutory Approvals and Permitted Activities

WBOPDC has consent to continue to discharge treated effluent and odour from the existing WWTS until 9 November 2016 and this application relates to the renewal of those consents. A copy of the existing consents is included in Appendix 1.

The WWTP site is designated under the Western Bay of Plenty District Plan meaning no resource consents are required from the District Council. The details of the designation are:

- Designation Number: D172 (see Appendix 2)
- Requiring Authority: Western Bay of Plenty District Council
- Designated Purpose: use of land for sewage treatment and disposal and sewage treatment plant buffer
- Location: Lot 4 DP DPS 27471, Lots 1-3 DPS 87205 Prospect Drive, Katikati

The designation allows for the operation, maintenance and upgrading (via Outline Plans if required) of the WWTP. The conditions are included in Appendix 1.

There is an easement over the extent of the pipeline over Matakana Island and an access agreement with the landowner.

Certain activities are permitted, subject to compliance with permitted activity conditions. The permitted activities and an assessment with the requirements are:

Activity	Regional Rule(s)	Assessment
Use of structure pRCEP – Rule SO 6A*	The use of any lawfully authorised structure in the coastal marine area where the structure existed on the date on which this rule becomes operative is a permitted activity.	The occupation of the CMA by the pipeline is authorised via resource consent. There are no conditions on the rule.
Signage District Plan Rule 14.3.1.1	Signage in Rural Zones for lawfully established activities	In the Rural Zone signage (up to specified maximum dimensions) is permitted for activities that are lawfully established
Discharge of dye pRCEP – Rule CD 2	The discharge of dye or gas tracer material, excluding radioisotope tracers, to coastal water for monitoring or research purposes is a permitted activity, subject to the following conditions: (a) Details of the proposed discharge shall be publicly notified at least one week prior to the discharge being made by a public notice in the local newspaper and/or other recommended methods including letter drops stating: (i) The area where the discharge will be made. (ii) The type of discharge.	The discharge would be for monitoring purposes. Notice will be given.

	(iii) The reason for the discharge. (iv) The duration of the discharge. (b) The discharge shall not contaminate any authorised water takes. (c) The dye or gas shall be inert, and shall be non-toxic in the concentration at which it is to be used. (d) The Regional Council and the relevant city or district council shall be notified in writing of the proposed discharge, no less than five working days before the discharge. Such notification shall include: (i) Persons responsible for the discharge including contact details; (ii) Purpose of the tracer programme; (iii) Description of the tracer programme; (iv) Nature of the tracer (i.e. type, colour, product name/description); (v) Discharge location and estimated timing; and (vi) Estimated duration of discharge.	There are no known coastal water takes There are dyes available that meet this requirement Notice will be given

2 Statutory Approvals Sought and Statutory Framework

2.1 Overview

This section sets out the resource consents sought and briefly outlines the statutory framework for consideration of the Proposal.

A full assessment of the Proposal against the statutory and policy framework is included in Section 10 of this report.

2.2 Resource Consents Required

A suite of resource consents are required under the Operative Regional Coastal Environment Plan (RCEP), Proposed Regional Coastal Environment Plan (pRCEP)[1] and Regional Air Plan (RAP) as follows:

Table 2-1: Resource consents required from the Regional Council

Consent Type	Activity	Regional Rule(s)	Activity Class	Scope of Application
Coastal permit s12	Occupation of the coastal marine area	pRCEP – Rule SO 11* RCEP – Rule 12.2.4(a)	Discretionary Discretionary	Occupation of the CMA by structures – ocean outfall and marker buoy
	Use of structures	pRCEP – Rule SO 6A* pRCEP – Rule SO 11*	Permitted Discretionary	Use of lawfully authorised structures that existed when the rule becomes operative Use of the ocean outfall and marker buoy
	Alteration/extension of structures in the CMA	pRCEP – Rule SO 11* RCEP – Rule 13.2.4(h)	Discretionary Discretionary	Alteration/extension of the ocean outfall to install a new diffuser
	Maintenance of structures in the CMA	pRCEP – Rule SO 7, RCEP – Rule 13.2.4(f)	A cautious approach has been taken and consent is sought as a discretionary activity	Ongoing maintenance of the ocean outfall
	Disturbance	pRCEP – Rule SO 11* RCEP – Rule 14.2.4(e)	Discretionary Discretionary	Disturbance of the CMA to install the new diffuser, inspect the pipeline and install the marker buoy
	Air discharge – from WWTP	RAP – Rule 19 w (ii)	Discretionary	Discharge from treatment or disposal of waste

[1] The Proposed Regional Coastal Environment Plan was notified on 24th June 2014 and decisions released on 1 September 2015. Appeals have been lodged with the Environment Court. Both the operative and proposed plans are relevant.

Discharge permit s15	Discharge to water	pRCEP – Rule CD 8	Discretionary	Discharge of treated wastewater that has been passed through a wetland
		pRCEP – Rule CD 2	Permitted	Discharge of trace dye
		RCEP – Rule 9.2.4(b)	Discretionary	Discharge of treated wastewater sewage and tracer dye

* rule under appeal

Overall, the Proposal is to be assessed as a discretionary activity.

For the avoidance of doubt, the Applicant is seeking resource consents under the rules above and any other rules which may apply to the activity, even if not specifically noted.

2.3 Statutory Framework

Section 104 (1) of the RMA sates that in considering applications the consent authority must, subject to Part 2, have regard to:

- any actual and potential effects on the environment of allowing the activity; and
- any relevant provisions of—
  - a national environmental standard:
  - other regulations:
  - a national policy statement:
  - a New Zealand coastal policy statement:
  - a regional policy statement or proposed regional policy statement:
  - a plan or proposed plan; and
  - any other matter the consent authority considers relevant and reasonably necessary to determine the application.

For the Proposal the relevant RMA plans and policy statements are:

- NZ Coastal Policy Statement 2010
- Operative Regional Policy Statement 2014
- Operative Bay of Plenty Regional Coastal Environment Plan 2002
- Proposed Regional Coastal Environmental Plan 2014
- Operative Regional Air Plan 2003

The Proposal does not affect freshwater bodies and therefore the National Policy Statement on Freshwater Management does not apply.

- The other matters that are considered to be relevant are: Matakana and Rangiwaea Islands Hapū Management Plan October 2012
- Te Awanui, Tauranga Iwi Harbour Management Plan 2008

Part 2 remains the overarching consideration, particularly sections 5 – 8.

Under Section 104(2A) of the Act, the consent authority must have regard to the value of investment of the existing consent holder, when considering an application affected by Section 124 RMA. In this regard, significant investments have been made by WBOPDC to establish and maintain the existing system and further investment is proposed. Detail of the level of investment is set out in the next section.

Section 105 of the RMA also states if an application is for a discharge permit or coastal permit the consent authority must, in addition to the matters in section 104(1), have regard to—

- the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
- The applicant's reasons for the proposed choice; and
- Any possible alternative methods of discharge, including discharge into any other receiving environment.

Section 107(1) of the Act states (except for as provided in subsection 2) a consent authority shall not grant a discharge permit if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:

- The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
- Any conspicuous change in the colour or visual clarity;
- Any emission of objectionable odour;
- The rendering of fresh water unsuitable for consumption by farm animals; and
- Any significant adverse effects on aquatic life.

These matters are addressed in the subsequent sections of the AEE.

3 Description of the Environment

3.1 General Setting

3.1.1 Katikati

Katikati township is located on the Uretara Stream near a tidal inlet towards the northern end of Tauranga Harbour, 28 kilometres south of Waihi and 40 kilometres northwest of Tauranga. The population is 4056 (2013 census).

The WWTP site is approximately 7.8 ha in area and located to the east of the township at the southern end of Prospect Drive. The site is designated in the District Plan for use by Western Bay of Plenty District Council as "land for sewage treatment and disposal and sewage treatment plant buffer". The surrounding are is predominately horticultural in its character and use with some paddocks for grazing. At the northern end of Prospect Drive, close to the intersection with Beach Road is a packhouse complex. The closest dwelling is to the east of the site.

At the northern end the site is slightly elevated with a slight incline to the south and the coast. Along the majority of the boundary there are well established shelterbelts or trees. The shelterbelts are over 8m high. There is an esplanade reserve along the southern boundary adjoining a small inlet of Tauranga Harbour. Two unnamed streams flow in the harbour at the head of the inlet. Running through the site from the northeast corner is a waterway that flows into the harbour. Stormwater from the site drains to grassed swales that flow into the waterway.

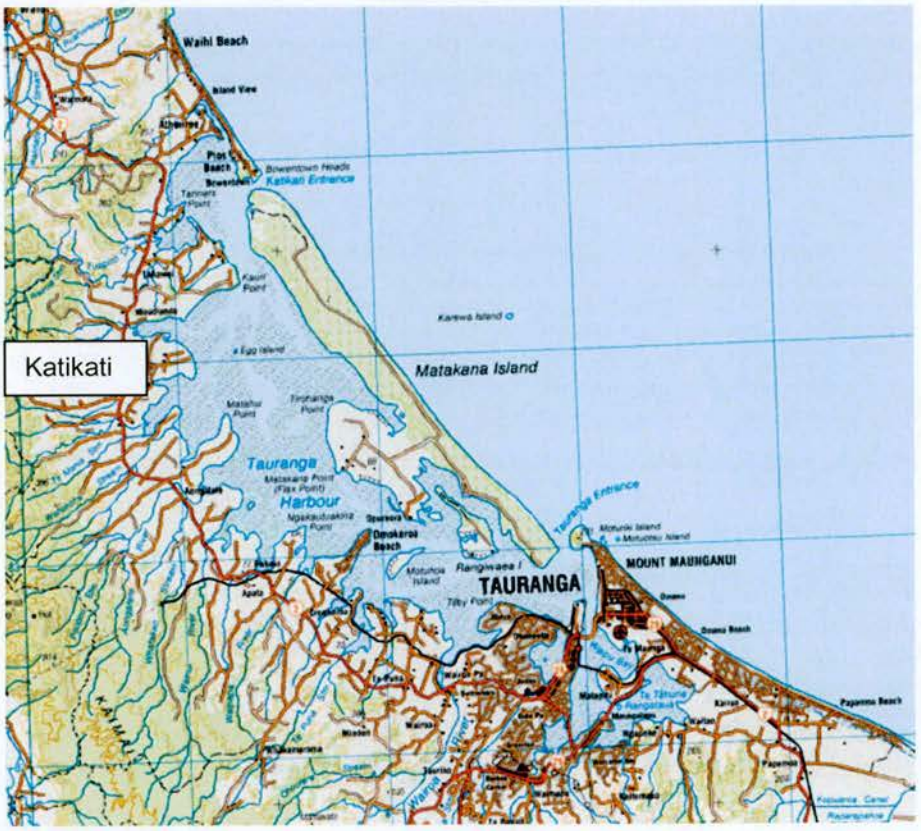


Figure 3-1: Location plan

3.1.2 Matakana Island

The information below comes from the Matakana Island Plan (May 2013).

Matakana Island is an elongated barrier island between Tauranga Harbour and the Pacific Ocean that lies in a northwest to southeast direction between Mount Maunganui in the southeast and Bowentown Heads in the northwest.

The 24 km kilometre long forested sand barrier has a frontal dune system along the open coast that is 100 to 150 metres wide. These dunes are between five and seven metres high. Inland from the dune system and on the northern end are low lying swamps and small freshwater lakes. On the Tauranga Harbour side, most of the forested sand barrier is flat and low-lying.

The Island has an area of approximately 5,800 hectares and has a population of 244 of whom more than 90% are Māori who whakapapa to the five hapū of Matakana and Rangiwaea Islands. The Island comprises two distinct areas connected by a narrow isthmus.

There are two functioning marae (Oruarahi and Opureora), a primary school (kura) and pre-school (kohanga).

The five dairy farms, three kiwifruit orchards, two avocado orchards, maize blocks, other small-scale horticultural activities, and a native tree nursery are the current major land use activities of the fertile farmland area. These provide a limited number of full time labour opportunities and some seasonal employment. The majority of the forested sand barrier is almost exclusively used for exotic commercial plantation forestry. This began in the 1920s and is expected to remain the dominant land use in the medium term given the harvest rotation cycle of forestry.

The Island is dependent on the barge links from Omokoroa to Opureora and from Tauranga (Port and Cross Road boat ramps) to Panepane. The farmland is serviced by a limited number of Council owned and maintained sealed and unsealed roads.

There are six consented bores on the Island that use 10,000m^3 /week for dairy wash down, stock supply, irrigation and horticulture. The majority of homes rely on rain water supply which can be problematic in dry years.

All wastewater on the Island is currently dealt with by disposal either through soak holes or conventional on-site septic tank treatment. Full sewerage reticulation for the Island remains cost-prohibitive due to the small number and dispersed nature of dwellings. There is a strong community support for the development of more sustainable treatment through the upgrading of existing systems where practicable.

An on-going concern for tangata whenua is the presence on the Island of the pipeline and associated ocean outfall.

3.2 Climate

The climate of Katikati is mild and generally warm and temperate. The mean daily maximum temperature is 23 degrees and the minimum 6. The annual rainfall is 1,319mm with the monthly average ranging from 96 to 135mm per month. The dominant wind is from a west/south-westerly direction but in summer there are north/north-east winds. Frequently onshore sea breezes develop in the afternoon in summer. The mean water temperature (1998 to 2005) is 20.6°C.

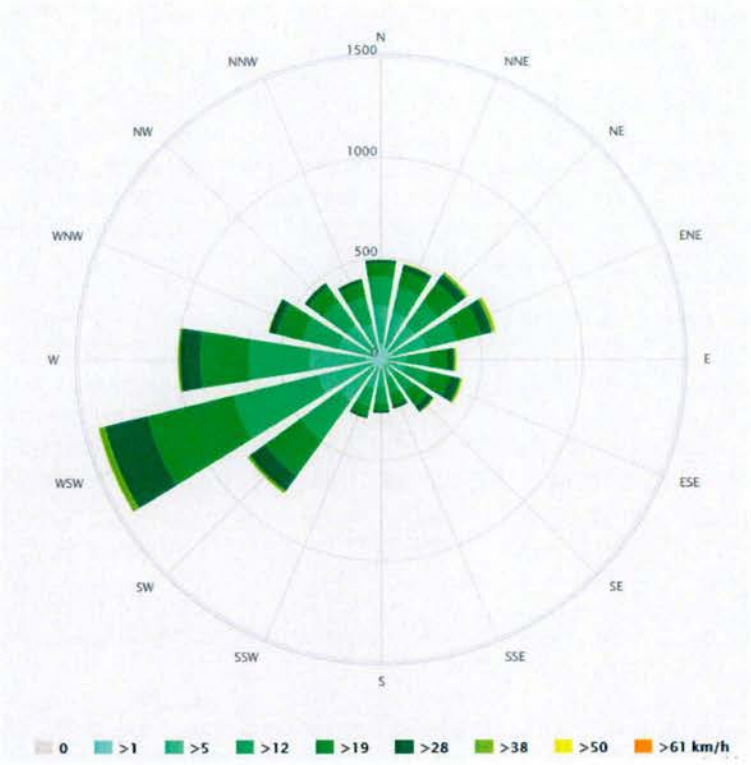


Figure 3-2: Typical wind climate at Katikati

3.3 Tauranga Harbour

Te Awanui is a traditional name for Tauranga Harbour. Tauranga Harbour is the largest estuarine inlet in the region being impounded by a barrier island (Matakana Island) and Mount Maunganui at the southern entrance and Bowentown to the north. The harbour is shallow and covers an area of approximately 200 km^2. The two main entrances to the harbour are at either end of Matakana Island where the tides flows through deep channels. The rest of the harbour is shallow with 66% of its total area being intertidal.

The mauri of the harbour is extremely important for the customary relationship tangata whenua have with the harbour, in particular customary food gathering.

The harbour is an outstanding natural feature and landscape, an outstanding ecosystem for wildlife, including marine mammals, shorebirds and fisheries and is recognised as a wetland of international importance for wading birds.

The following provides a high level summary of the state of the harbour[2]:

- The microbiological water quality standards for recreation are not often exceeded in the harbour although shellfish contamination can occur. Shellfish collection closures tend to occur as a result of toxic phytoplankton, for example since November 2014 there has been a health warning (do not collect or eat) for paralytic shellfish toxins from the southern end of Whangamata Beach, southwards all the way to the Whakatane Heads including Tauranga Harbour, Maketu and Waihi estuaries, Matakana and Motiti Islands, and all other islands along this coastline.

- The majority of studies have determined that heavy metals are within ANZECC guidelines although there have been some exceedances.

[2] Sinner, J. et. al., Health of Te Awanui Tauranga Harbour, June 2011

- Mangroves have spread extensively throughout the harbour since the 1940s however there has been some removal in response to community concerns.

- Benthic communities are similar to those in comparable habitats elsewhere in northern New Zealand.

- At least 23 species of macroaglae have been identified within the harbour, with red turf-like algae identified as the most common. Sea lettuce blooms have occurred as far back as the 1940s and monitoring since 1991 shows large blooms occurred in 1991-1993, 1998 and 2003-2007. Sea lettuce blooms peak in spring and decline over late summer, when growth appears to be nutrient limited.

- A range of fish species are found within Tauranga with trevally, sand flounder, yellow-belly flounder, grey mullet and snapper being common commercial species. The harbour is also important for spawning and migration of whitebait, shortfinned eel, long-finned eel and lamprey.

- The most abundant fish in Tauranga Harbour are yellow-eyed mullet. Both commercial and recreational harvests of snapper have fallen. Tangata whenua have noticed a decline in many fish species including flounder, shark, snapper, kingfish, trevally and mullet. A mataitai reserve was established around Mount Maunganui with commercial fishing prohibited within this area and restricted in other parts of the harbour.

- At least eight mammal species are regularly observed within the harbour with fur seals being common visitors.

- The harbour is recognised as a wetland of international significance for the protection of migratory and resident bird species. During summer, Matakana Island hosts the largest breeding colony of NZ dotterel in the country.

The harbour area adjacent to Prospect Drive is a small inlet at the southwest corner of Rereatukahia inlet. The area is intertidal and a small drainage channel extends along the middle of the inlet at low tide. The pipeline is located along the middle of the inlet beneath the surface sediments. Mangroves extend out from the shore.

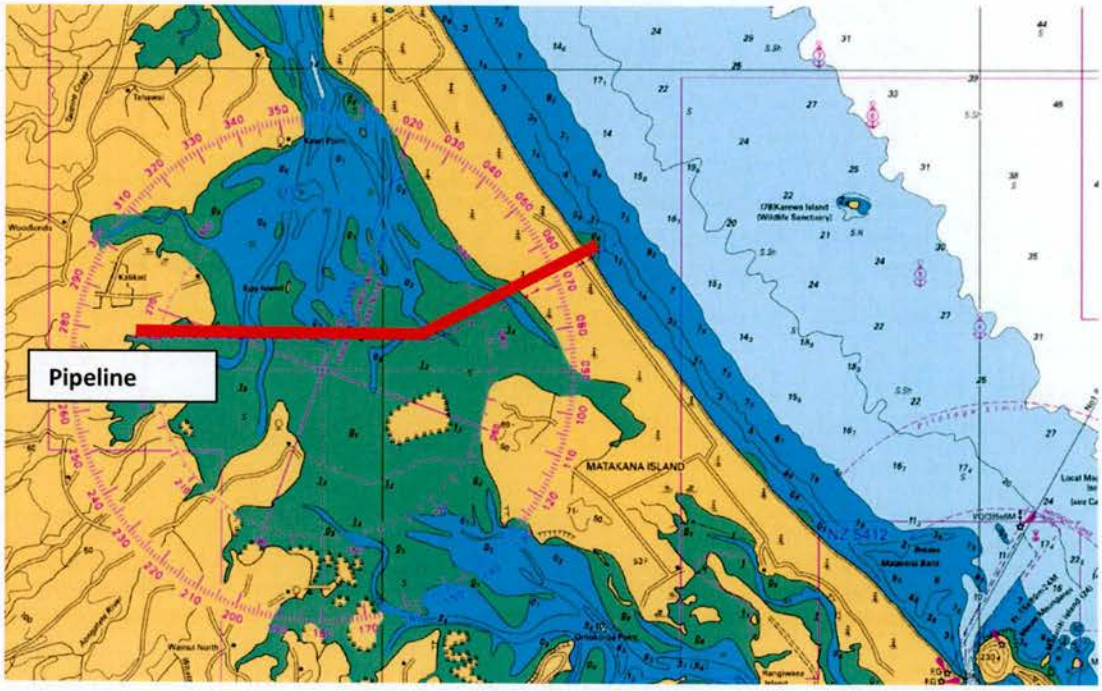


Figure 3-3: Pipeline route

3.4 Oceanographic Conditions

The area of the Pacific Ocean which is bounded by the Bay of Plenty region is sheltered from the prevailing west to southwest swells by the land mass of New Zealand. Consequently high waves are less frequent than in corresponding western areas. Similarly it is protected from the cool ocean currents induced by the prevailing westerly winds, but is influenced by the warm East Auckland Current which has a subtropical origin.

Sea and swell wave characteristics in Bay of Plenty are determined by the area's exposure to the prevailing winds and by the sheltering provided by the North Island. Thus sea waves from the west are the most frequent (due to the prevailing westerly wind flow), while swells from the east and north predominate due to the long fetches available in those directions and the sheltering given by the North Island[3].

Figure 3-3 above shows the location of the pipeline on the chart. Close to shore the seabed slopes gradually however, at the northern end of Matakana Island the slope is 170:1 and at the south 100:1.

The nearshore currents in the region are influenced by waves, tides, winds, river discharges, harbour entrance effects (the two entrances to Tauranga Harbour) and regional currents related to offshore conditions. The onshore / offshore movement of water affects the transport of a wastewater field into the surf zone and onto beaches. Away from harbour entrances the tidal currents are not strong. The region has a predominance of longshore currents, as is the case in the area of the outfall with the alongshore currents running up the coast approximately half the time with down coast currents occurring the other half of the time. Calm conditions (<0.01 m/s) occur less than 10% of the time. There is little evidence of a tidal component in the surface currents[4].

The maximum tidal range off Matakana Island is 2.24m.

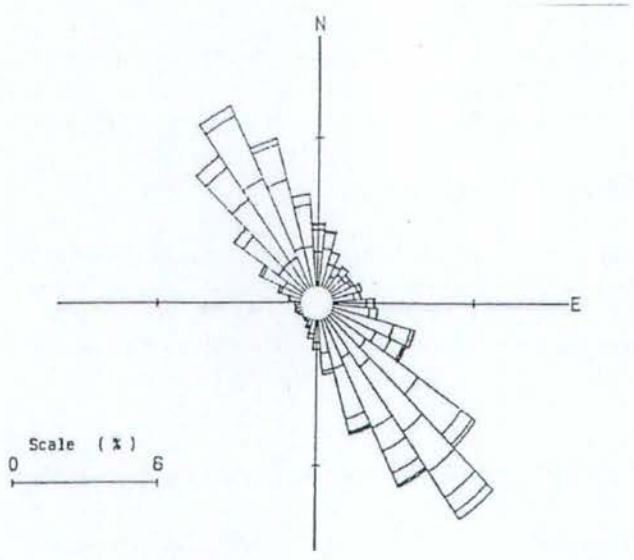


Figure 3-4: Current speed and direction at the outfall site (Feb-May 1991). Speed increment 0.05m/s. The median current is 5.2 cm/s and the maximum speed 0.31 m/s or 110m/h.

[3] NIWA (2013), The Climate and Weather of the Bay of Plenty, 3rd Edition, NIWA Science and Technology Series, No. 62

[4] Beca (1991), Western Bay of Plenty Sewerage – Water Right Study of Bay of Plenty Ocean Foreshore Waters

3.5 Coastal Water Quality and Ecology

A number of surveys have been undertaken over the years to investigate the water quality and ecology. The first of the surveys was done in 1982 by Bioresearchers as a monitoring survey of the ocean outfall. The 1991 survey was to support the application for the current consent when a range of sampling was undertaken (pre-dates the current treatment plant). In 2006, as a requirement of the current consent conditions, a comprehensive sediment and fauna survey was undertaken. In late 2015, to support this consent application, a survey expanded from the 2006 to include water quality and shellfish was undertaken.

3.5.1 Water Quality

While sampling for water quality is of limited value unless there is a significant level of replication and covers appropriate time periods, there are a number field surveys that have been undertaken that collectively contribute to our understanding of the water quality in the area.

Microbiological contaminants – No sampling of swimming beaches along Matakana Island is undertaken as part of the Regional Council's bathing water monitoring programme. The closest sites are around Tauranga Harbour/Mount Maunganui and are graded 'very good' or 'good'. The Regional Coastal Plan requires that the waters be managed for bathing and shellfish gathering.

Nutrients – the Regional Council have investigated coastal water quality in the region in 1996/97 and 2003/04[5]. In the first study a transect from the 10m to 200m depth contour was monitored just north of Tauranga Harbour's eastern entrance. Total Phosphorus ranged from 0.002 to 0.045 g/m^3 with higher concentrations in winter/spring and in the 10m – 20m water depth contour. The mean Total Nitrogen was 0.103 g/m^3 with higher concentrations inshore and a clear seasonal pattern (highest in winter/spring).

At the outfall site – Total Phosphorus ranged from 0.008 – 0.048 g/m^3 (mean 0.0154 g/m^3) and Total Nitrogen <0.3 to 0.3 g/m^3. The Applicant has monitored water quality for eight years as part of consent requirements. The results of monitoring faecal coliforms concentrations show 86% of samples are <4 MPN/100mL when more than 50m from the outfall and for Enterococci 99.7% of samples are <280 cfu/100mL.

3.5.2 Sediment Quality and Ecology

Extensive and ongoing sediment and shellfish sampling has occurred around Tauranga Harbour but investigations off Matakana Island have been more limited.

Sediment and Benthic Characteristics –The benthic sediments and biota of the area off Matakana Island have previously been characterised in 2006 (Kingett Mitchel study) and more recently in 2015. The studies noted:

- The sediment is dominated by sand with very little mud or gravel matter
- The sediments show little evidence of accumulation of trace metals with all readings below the low interim sediment quality guideline value (ISQG-Low) derived in ANZECC
- There is a low abundance and diversity of benthic fauna which is typical of sandy coastal environments. The infaunal communities are dominated by polychaeye worms.

Shellfish – a single round of sampling of tuatua in 2015 showed that bacteria levels were below detection and heavy metal levels below guideline values for human consumption. Shellfish sampling was undertaken in 1991 but this was prior to the current treatment plant being in existence.

---

[5] Park, S., Bay of Plenty Coastal Water Quality 1996 to 1997, Environmental Report 98/5 and 2003 – 2004, Environmental Publication 2005/13

The CIA prepared by the Hapū of Matakana and Rangiwaea Islands notes:

"Tuatua are regarded as a taonga to tangata whenua and one that has an important role to play along this coastal stretch which is often referred to as a keystone species. The life cycle of the Tuatua supports many other taonga within the moana that ultimately rely on these beds as an important food source for their own sustenance. Tuatua often migrate to the deep (1-2m) during the winter season and migrate inshore during the end summer months to spawn. It is during this time that the many fish and shellfish species can be found in great numbers eating off the bountiful beds. These species include Snapper, Kahawai, Trevally, Grey-mullet, Yellowed-eye Mullet, white belly flounder, yellow belly flounder and paddle crabs which all rely on the tuatua beds as an integral part of their own individual life cycles."

Marine Mammals – A large number of whales and dolphins have been observed in the wider Bay of Plenty.

3.6 Recreational and Amenity Values

Access to Matakana Island is via the public ferry from Omokoroa or private boat. The ocean side of Matakana Island comprises an extensive long beach with surfing popular particularly when there is a north-easterly swell. Recreational fishing is an important activity and occurs year round for a variety of species. Nearer the shore tuatua can be found. On the harbour side of the Island there are ski lanes for recreational boating.

The recreational opportunities available on and around the harbour are a significant attraction for people to live in and visit the western Bay of Plenty sub-region. The harbour is a popular recreational area with boating and fishing activities carried out year round. Recreational fishing is one of the more popular recreational activities on the harbour.

Both Tauranga City Council and Western Bay of Plenty District Council have a spread of reserves and facilities (e.g. boat ramps and walkways) around the harbour margins that provide access to the harbour. Between the Councils there are a suite of plans and strategies that guide how these reserves and facilities are managed. The Tauranga Harbour Recreation Strategy 2008 identifies that access to traditional Maori kaimoana areas and other customary sites in the harbour has been reduced due to ongoing development around the harbour margins[6].

3.7 Identified Values

The Schedules of the operative RCEP include the following values:

- ONFL 3 - Tauranga Harbour: Outstanding Natural Feature and Landscape
- ASCV 4 – Tauranga Harbour: Area of Significant Cultural Value
- Indigenous Biological Diversity Area A: Egg Island Sandbank (the pipeline is on the southern tip of the area), Western Foreshore of Matakana Island (where the pipeline comes ashore)
- ONFL 5 – Matakana Island: Outstanding Natural Feature and Landscape (includes where the pipeline crosses and Island and for a distance offshore)
- Indigenous Biodiversity Area A: Matakana Island Eastern Foreshore (includes where the pipeline cross the Island)

The Schedules of proposed RCEP include the following values:

[6] BOPRC, Tauranga Harbour Recreation Strategy, August 2008

- ONFL 3 - Tauranga Harbour, Waimapu Estuary & Welcome Bay: The entire harbour, its estuarine fringe and unmodified islands. Generic Landscape Policy for Harbour, Headland, Estuarine, Duneland and Islands

- ONFL 5 - Matakana Island: The afforested portion of Matakana Island excluding the westerly (inner harbour) farmed area and northerly wetland area. Generic Landscape Policy for Duneland (under appeal)

- Indigenous Biological Diversity Areas A

  Matakana Island eastern side - A22 foredunes, flora, avifauna and estuarine and palustrine wetlands (where the pipeline crosses the Island and for a distance offshore)

- Indigenous Biological Diversity Areas B

  B35 – Tetley Road estuary (adjacent to the treatment plant site) - estuarnine wetland

  Mangrove scrub and other indigenous estuarine wetland vegetation types. The palustrine wetland is infested with grey willow. Migratory fish species have been recorded upstream of the site.

  B51 Matakana Island 4 (where the pipeline comes ashore at Matakana Island) - Mangrove scrub and shrubland, sea rush tussockland, oioi rushland, and other estuarine wetland types.

- Areas of significant cultural value

  ASCV-4 Te Awanui (Tauranga Moana or Tauranga Harbour)

The District Plan (Matakana Island Plan) also identifies natural coastal features such as the dunes, wetlands and freshwater lakes. The beach is an area of breeding and nesting ground for a range of shorebirds.

3.8 Tangata Whenua and Cultural Values

The Bay of Plenty region's tangata whenua landscape is complex and dynamic. A number of different iwi and hapū have a relationship with all or part of the areas that the WWTP traverses or affects. These groups include:

- The five Hapū of Matakana and Rangiwaea Islands; Ngati Tauaiti, Ngai Tuwhiwhia and Ngai Tamawhariua based at Matakana Island, and Te Whanau a Tauwhao and Te Ngare who are located at Rangiwaea Island, Tauranga

- The northern Ngati Te Rangi hapū of Ngai Tamawhariua (Te Rereatukahia marae), Ngati te Wai (Tuapiro marae) and Te Whanau o Tauwhao (Otawhiwhi marae).

WBOPDC commissioned two Cultural Impact Assessments (CIAs) to describe the relationship and history of different tangata whenua with the relevant areas and the cultural effects of the Proposal on them. A joint CIA was been prepared by the five Hapū of Matakana and Rangiwaea Islands and a separate CIA for the northern Hapū of Tauranga Moana (Northern Ngai Te Rangi hapū), being the Hapū of Te Rereatukahia, Tuapiro and Otawhiwhi.

The Matakana Island Plan, along with the hapu management plan and CIA, notes that the presence on the Island of the pipeline and the associated outfall has been an on-going concern for tangata whenua.

For Rangiwaea and Matakana tangata whenua a series of values and principles are used to assess any environmental matters. These are:

- Putaiao - the living world

- Putaiao - the living world
- Tikanga Maori – cultural; kawa and tikanga;
- Kaitiakitanga: stewardship and guardianship
- Manaakitanga – hospitality, respect, safety, security
- Rangātiratanga – autonomy, control, management
- Whānaungatanga: relationships, community connectivity
- Wairuatanga: spirituality, embedded emotion
- Mana Whenua/Mana Moana – authority
- Ohanga – economic; quality and quantity of natural and physical resources
- The Four Well-Beings: the overlap and influence of economic, social and cultural factors in the environment that do not stand in isolation of each other. Rangiwaea and Matakana see themselves as part of the environment and responsible with others for determining and influencing their social, economic, cultural and social wellbeing.

The CIA prepared by the Hapū of Matakana and Rangiwaea Islands notes:

"From the Rangiwaea and Matakana perspective, it is difficult to separate the relationship and importance of one site over another. In their cultural traditions all sites including settlements, gardening areas, food gathering practices, cemeteries, springs, and tracks are interrelated. In this instance a landscape approach is taken to the impacted area of Matakana Island and the waters surrounding the outer Islands including Mauao."

4 Description of the Existing Scheme

The central purpose of a wastewater scheme is to provide a safe way to provide for the collection, treatment and disposal of human sewage and industrial wastewaters. WBOPDC's wastewater assets collect, treat and dispose of household sewage discharges and normal industrial and commercial wastewater discharges for the six communities within the District including Katikati.

The Proposal is to continue with the existing Katikati scheme. WBOPDC is also proposing a new set of consent conditions to regulate the ongoing operation on the WWTS (discussed in more detail later in this report).

4.1 History of the Scheme

To understand the history of wastewater in the area, it is necessary to understand the history of the pipeline and previous consent applications.

A timeline of the Katikati Cooperative Dairy Company discharge and District Council wastewater services since the 1960's is in Appendix 2.

Prior to reticulation in Katikati properties were served with individual septic tanks. In 1965 the then Tauranga County Council planned for the reticulation of Katikati. Reticulation and package treatment plants were completed in late 1968. In 1972 the Council applied to build oxidation ponds and an outfall to the harbour but did not proceed to hearing. 1965 also saw the granting of a permit to the Dairy Company to discharge waste from its factory (primarily water and casein whey) to the Tauranga Harbour. This discharge caused significant adverse impacts on the Harbour.

The Dairy Company constructed the existing pipeline across the Harbour and Matakana Island and out to sea in 1979. Waste from the Dairy Company then began to flow into the sea off Matakana Island, ceasing in 1982 when the dairy factory was closed.

In 1984 the ocean outfall was purchased from the Dairy Company, with full ownership transferring to the Council in 1986.

Tangata whenua were not adequately consulted or involved in the planning and consenting of the pipeline, the assessment of wastewater treatment options, or the monitoring associated with the discharge.

For many years the Matakana Island community has shown considerable concern about the pipeline and the discharge. Section 5 of the CIA prepared by the five Hapū of Matakana and Rangiwaea Islands provides a history from a cultural viewpoint. Rangiwaea and Matakana representatives have discussed in detail the impacts associated with the outfall discharge on a number of occasions dating back to the 1950's.

The CIA states: "*The tangata whenua of Matakana Island has always vehemently opposed the Katikati Sewerage Pipeline and feel that the whole process from its inception has been fundamentally flawed and has seriously undermined and breached the principles of 'Partnership' and 'Protection' of the Treaty of Waitangi.*"

Discussions with tangata whenua and WBOPDC representatives have taken place and as an outcome of those discussions WBOPDC has agreed to facilitate and progress a monitoring programme. It also commissioned tangata whenua to prepare a CIA to assess and document the impacts of the discharge.

The current WWTP was constructed at Prospect Drive in 1999. The WWTP now treats the wastewater and results in a high quality effluent entering the pipeline to then be discharged via the ocean outfall. It replaces the old "milliscreen" system at Wills Road, which was constructed in the mid 1980's. Since the construction of the WWTP at Prospect Drive a number of upgrades have been undertaken.

While acknowledging the turbulent history the ocean outfall has and the offence it continues to pose to tangata whenua in particular, the standard of the discharge to the ocean has been significantly improved. The proposal to install a replacement diffuser will also further reduce the potential for effects.

A site layout and process flow diagram are shown in Figure 4-1 and Figure 4-2. The Scheme is described in greater detail in Section 4.2.

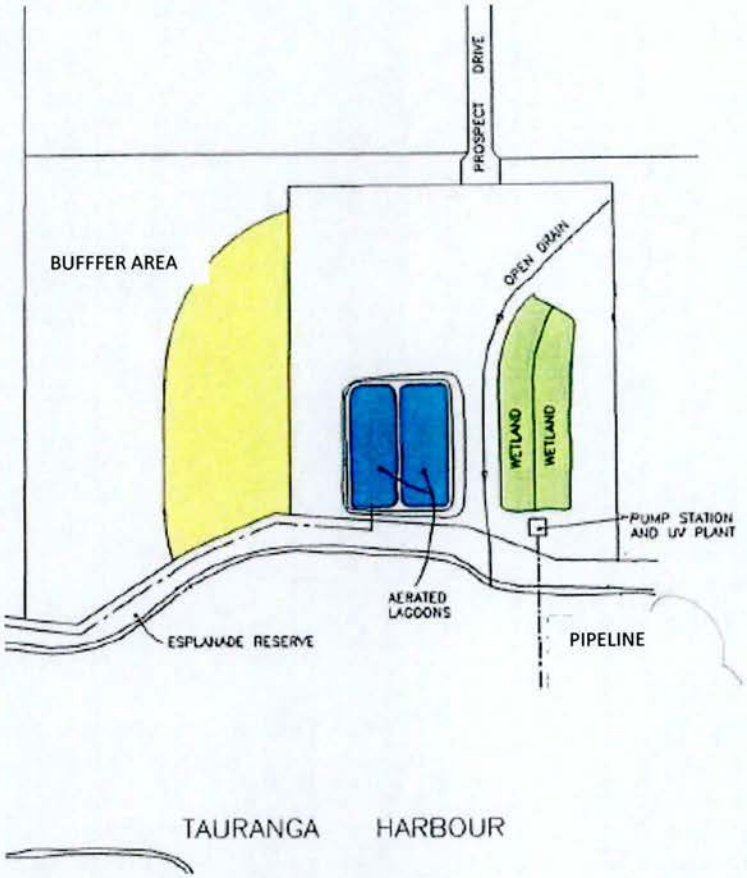


Figure 4-1: Site layout plan including the buffer area

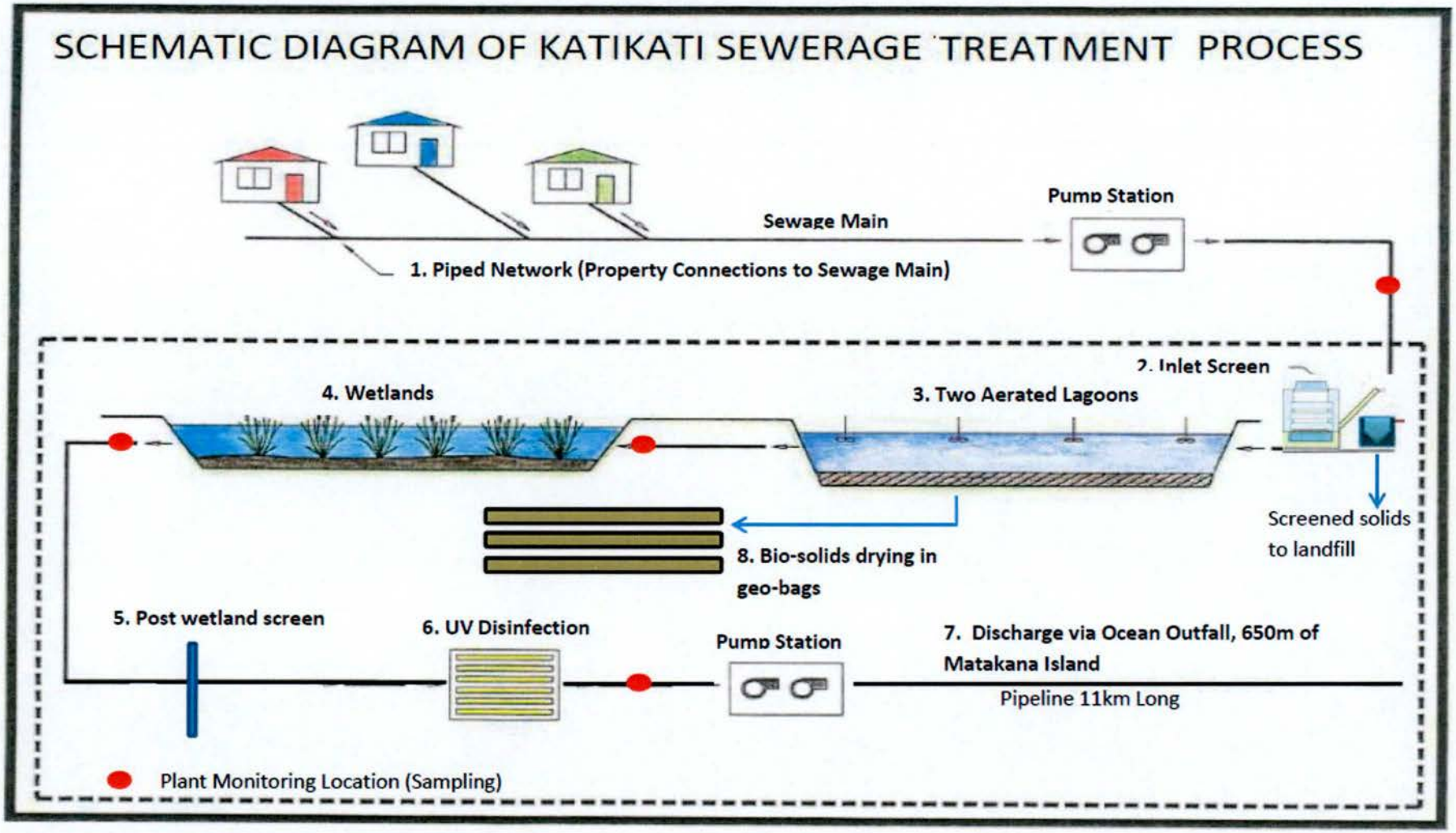


Figure 4-2: Process diagram of the Katikati WWTS treatment process

4.2 Components of the Existing Scheme

The existing treatment and disposal system involves:

- **Piped network:** The WWTP takes untreated wastewater from houses and business in the Katikati community. Wastewater is collected via a piped reticulation system from the domestic areas of Katikati. As of June 2014, 1825 properties were connected with 2114 connections being available. Wastewater from the commercial and light industry is collected via the same network. Untreated wastewater is pumped from 14 pump stations to the WWTP site. A map of the reticulation area is in Appendix 3.

- **Inlet screening**: plastics and inert solids (eg. rags, toys, nappies) from the incoming sewage are removed by a step screen to avoid clogging equipment. The screened material is loaded directly into bags and disposed of offsite at an approved landfill. The screening takes place inside a purpose built building. This screening removal is a vital part of the treatment process as it removes items which cannot be treated and ensures downstream equipment is not affected.

- **Aerated Lagoons (primary treatment):** from the steep screen building flows are piped to the first of two lagoons that are operated in series. From the inlet pipe, the wastewater flows along the length of the first lagoon in a northerly direction, flowing past three aerators into the second lagoon. The aeration process involves the addition or air/oxygen into the lagoon; this provides ideal conditions for micro organisms to break down the organic matter in the wastewater. The second lagoon has two different operating zones. The first zone has an aerator and operates in a similar manner to the first by adding aeration. The second zone is the settling zone, which allows the suspended solids to settle out of the wastewater. From the aerated lagoons the treated wastewater flows through to the wetlands.

- Each lagoon has a surface area of approximately 3,220m^2 and a volume of approximately 6,971 m^3, resulting in a total hydraulic retention time in both lagoons of 10 days at a design dry weather flow of 1380 m^3/day.

- **Floating Wetlands:** the wastewater from the aerated lagoons is distributed to the two surface flow wetlands. The wetlands operate in parallel meaning the wastewater is dispersed evenly through both wetlands. The wetlands are designed, through the planting of vegetation within the wetlands to remove any remaining nutrients from the wastewater before discharging through the post wetland screen to the UV system.

The wetlands have a gross surface area of approximately 10,000m^2 and a gross volume of approximately 5800m^3, giving a total hydraulic retention time of 4.2 days at dry weather flow. There is 800mm freeboard.

Occasional weeding of the beds is required to prevent the growth of invasive vegetation.

- **Post wetland screen:** the post wetland screen removes any final solids in the treated wastewater before passing through to the UV system via a pipeline.

- **UV disinfection**: UV disinfection uses ultra violet light to kill any harmful micro-organisms in the treated wastewater. The UV plant has 24 lamps in four modules.

- **Discharge pump station**: the outfall pump station collects the wastewater from the UV plant and pumps it to the ocean outfall. Two discharge pumps operate as a duty/standby (operating one at a time) operation. During normal operation the wastewater is discharged intermittently with variable speed drives. The maximum speed is set to 34.7 L/s meaning a maximum discharge flow if 3000 m^3/day. A flow meter measures the rate of discharge. The pump station is fitted with a number of safety features, which are to protect the pipeline from over-pressurising (the pumps stop if the high pressure alarm is triggered) as well as from surge action.

- **Pipeline**: the treated effluent is discharged via a pipeline out to sea, 650m off Matakana Island. There is a submarine pipeline across Tauranga Harbour and an inground pipeline across Matakana Island. The pipe has an internal diameter of 200mm and is made of PVC-u.

- **Biosolids and dewatering ponds**: the biosolids from the aeration lagoons and wetlands are collected and dried onsite in large geobags. Any liquids from the biosolids are returned to the start of the treatment process for further treatment. Currently there are bags drying and disposal of the biosolids has not been required. Disposal options are currently being investigated and include a vermiculture facility or disposal to farm land. Disposal of the biosolids does not form part of this application.

- **Emergency overflow pond:** If needed there are emergency ponds that are used in extreme situations to store raw untreated sewerage from the oxidation ponds. Weirs installed in the recent upgrade control how much is stored (in the oxidation ponds, wetlands and emergency ponds), where and how the storage is distributed. The emergency storage is filled by a pipeline, which is normally isolated from the system by a manual valve. Return from the emergency ponds to the treatment system is done by a pump.

The WWTP site is fenced and gated to prevent unauthorised access to the site.

Asset valuation is undertaken regularly by WBOPDC. Replacement cost for all connections, pump stations, raising mains and the treatment plant was $35,152,275 (December 2013) with the treatment plant being $2,012,024. This excludes the cost of the pipeline. The estimated cost of replacing the pipeline is $19 million.

4.2.1 Recent Upgrades

The WWTP was upgraded in 1999 and the treated wastewater achieved the standards specified in the resource consent until 2007 when a number of parameters began to exceed the limits from time to time. Further detail on the compliance issues leading to the upgrades is set out below at section 4.5.3.

The frequency and nature of non-compliance events increased in 2008 resulting in the decision to desludge the two aerated lagoons in 2009 – the first time any desludging had been done. In the last couple of years some further operational issues emerged, in particular with the operation of the wetlands at times of high inflows.

WBOPDC engaged g2e, and engineering consultancy, to review the operation of the WWTP and provide recommendations for addressing the exceedances and any associated operational matters. All components of the WWTP were reviewed (flows, design, operation and quality) and a series of recommendations made.

The issues resulted in the following further upgrades that were completed in November 2015:

- **Advanced microbial digestion desludging process equipment:** To reduce sludge levels in the wetland ponds for better treatment of effluent.

- **Floating wetlands:** Floating Treatment Wetland consists of woven mats into which wetland species are planted. The plants grow through the mat allowing the roots to be suspended in the water column below the mat. This creates a large surface area which acts as a filter for suspended solids (predominantly the residual algae) and through which natural plant activity removes additional nutrients from the water. Most of the nutrients are retained in the plant until the leaf matter is harvested.

  In 2010 a trial was undertaken at the WWTP where approximately 600m^2 of floating wetland rafts were installed at the discharge end of the original wetland to address issues related to increasing Total Suspended Solid (TSS). The test proved successful and further floating wetlands were installed in 2015.

- **Improvements to the primary treatment ponds:** Works included raising the pond embankments, installation of a new overflow weir and the installation of an outlet protection curtain. This work

increased the capacity of the ponds to provide better treatment of the wastewater before it enters the wetlands. The outlet protection curtain provides a calmer, non-aerated settling zone in which solids will be able to drop out before the effluent exits the ponds and goes into the wetland.

- **Modification of the wetland embankment:** The external embankments of the wetland have settled to various degrees in different locations. The current upgrade includes raising the embankment of the wetlands to the required operating level.

- **New Flow control system:** The maximum capacity that can be discharged per day is limited by the discharge pump and pipeline. To address this, improvements were made to the hydraulic control at the end of the plant by (a) automatically maximising discharge, (b) optimising the discharge pump controls, and (c) holding effluent back at inflow peak flows.

The full benefit of the recent upgrades is yet to be seen given the short timeframe since the physical works were complete and the limited data set compiled since that completion. Some of the parameters monitored have demonstrated an upward trend following the completion of the above works. This is expected to improve over the next few months as the effects of those works settle down. Further information will be provided at the hearing.

The 2015-2025 Long Term Plan includes provision for pump station renewals and upgrades (increase the storage at the Wills Road pump stations in 2018 for emergency management) and renewals at the treatment plant.

4.3 Pipeline Investigations

The pipeline was installed in 1979 by the Katikati Dairy Company and taken over by WBOPDC in 1984. The 1997 consent conditions required that an investigation into the structural integrity of the pipeline be undertaken. A condition assessment of the pipeline was undertaken in 2003 and further reporting in 2007[7]. In order to carry out the condition assessment, a section of pipe was cut out of the pipeline and tested. Two lengths of 6m were tested. All tests showed that there was little or no deterioration in the quality of the pipe since it was laid in 1978 and that the pipe passed all the tests ("out of round", impact strength and physical properties) as if it were newly manufactured.

As the outfall pipe is a pumped rising main, flows and pressures in the pipeline have been monitored since the WWTP was commissioned in 1999. In the infrastructure industry in New Zealand there are a series of databases and Asset Management Manuals that are used to determine renewal dates for pipelines based on "expected life" or also called "design life" – this is the period in which the pipe will be expected to perform as it was designed. The life of a pipeline does not mean that it will automatically fail at the specified design life but as it nears the expected end there may be some loss of performance. However, it is possible that the pipe might last longer. The conclusion of the 2007 assessment was that the outfall pipeline was in excellent condition and that with a typical life is 80 years it would not be expected to need replacing prior to 2038.

[7] Iplex Pipelines Ltd report 2007

Figure 4-3: Photo of section of pipe

In 2012 the performance of the pipeline was investigated again as there had been concerns that it was performing below its design and consented capacity. – A report was commissioned (included in Volume B) to identify the cause of the reduced performance and present recommendations for improvements – the issue was not about environmental performance rather operational matters. The work involved a review and analysis of historical data and hydraulic testing of the pipeline. Pressure dataloggers were installed in four locations along the pipeline. Testing involved incrementally raising the flow rate from zero to 17.8 L/s. A CCTV camera was also used.

The report included a series of recommendations there were implemented to ensure the life of the pipeline was maintained. The following recommendations have successfully improved the operational performance of the pipeline by improving the pumping efficiency and the ability to flush the pipeline:

- Section 4.1 Air Management Improvements – As recommended by URS
- Section 4.2 Confirm Fitting Pressure Ratings – As recommended up URS
- Section 4.3 Line Pigging - The pipeline has not been pigged due to the associated risks.
- Section 4.4 Routine Flushing - In 2013 Council installed a chamber on Matakana island to allow the installation of a mobile pump on the outfall pipeline as required. The pump will assist with periodic cleaning of the outfall pipe line and pumping during heavy rainfall events.

Council has also upgraded all air valves associated with the pipeline on Matakana Island.

4.4 Existing Wastewater Flows

The existing consent authorises a maximum of 3,000 m^3/day from the outfall at a rate not exceeding 130 m^3 per hour.

When treatment plants are designed they are based on flows and volumes that will achieve particular quality standards. The design process requires determining how long the wastewater needs to be retained in, for example the ponds (known as hydraulic retention time), so that the required treatment process and standards can be achieved. The treatment plant was originally designed for an average flow of 1,380 m^3/day and peak flow of 3000m^3/day.

Continuous flow monitoring is undertaken of the inflows to the treatment plant and the discharge from the treatment plant. Table 4-1 provides metrics derived from analysis of daily WWTP inflow data for the 12 month period between July to June during the years 2010 to 2015 and July to January in the year 2015.

Table 4-1: Calculated inflow based on data monitoring during 2010-2015

Years	Annual Average Flow (m^3/d)	Annual Median Flow (m^3/d)	Maximum 95th%-tile Flow (m^3/d)	Maximum Daily Flow (m^3/d)
2010/2011	901	879	1875	2720
2011/2012	891	875	1875	2129
2012/2013	1059	1014	2957	4299
2013/2014[A]	708	782	2208	2465
2014/2015	1012	1003	1654	1799
2015/2016[B]	1238	1226	1697	2054

[A] This data does not include the months July to September; [B] This data does not include the months January to July.

Table 4-2 shows a steady inflow rate between the years 2010/2011 and 2011/2012 with 13% median flow annual increase during 2012/2013 and about 4% annual increase during 2014/2015. The 4% annual increase of flow is closer to the projected population increase of 2.2 % per year.

The discharge volume since 2010 is presented in Figure 4-4 and Figure 4-5. The average daily discharge varies over the seasons with generally lower volumes over the period October to December. The maximum discharge of 3000 m^3/d over the period June 2010 to February 2015 was exceeded once in February 2014 (3027 m^3/d) and was due to pipe flushing however, the volume the following day was only 484m^3. This illustrates that the discharge is generally well within the consented limit.

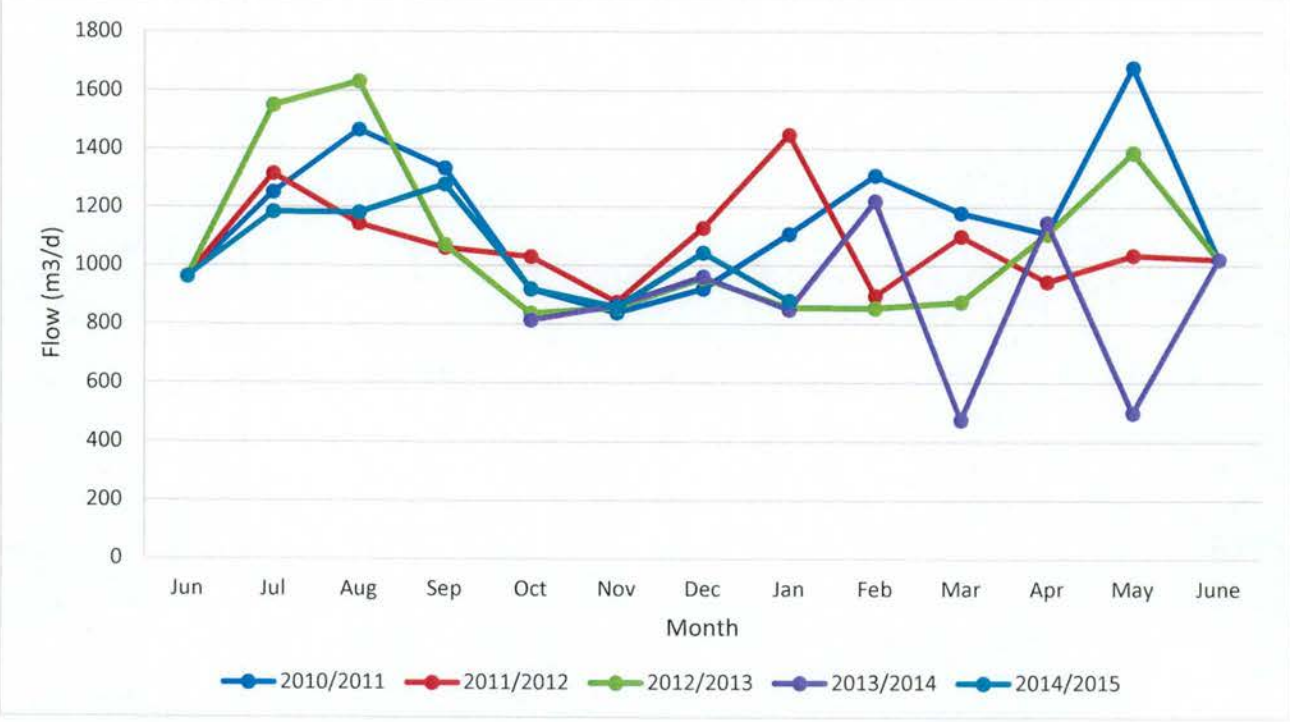


Figure 4-4: Seasonal flow variations – daily average discharge in m^3/day

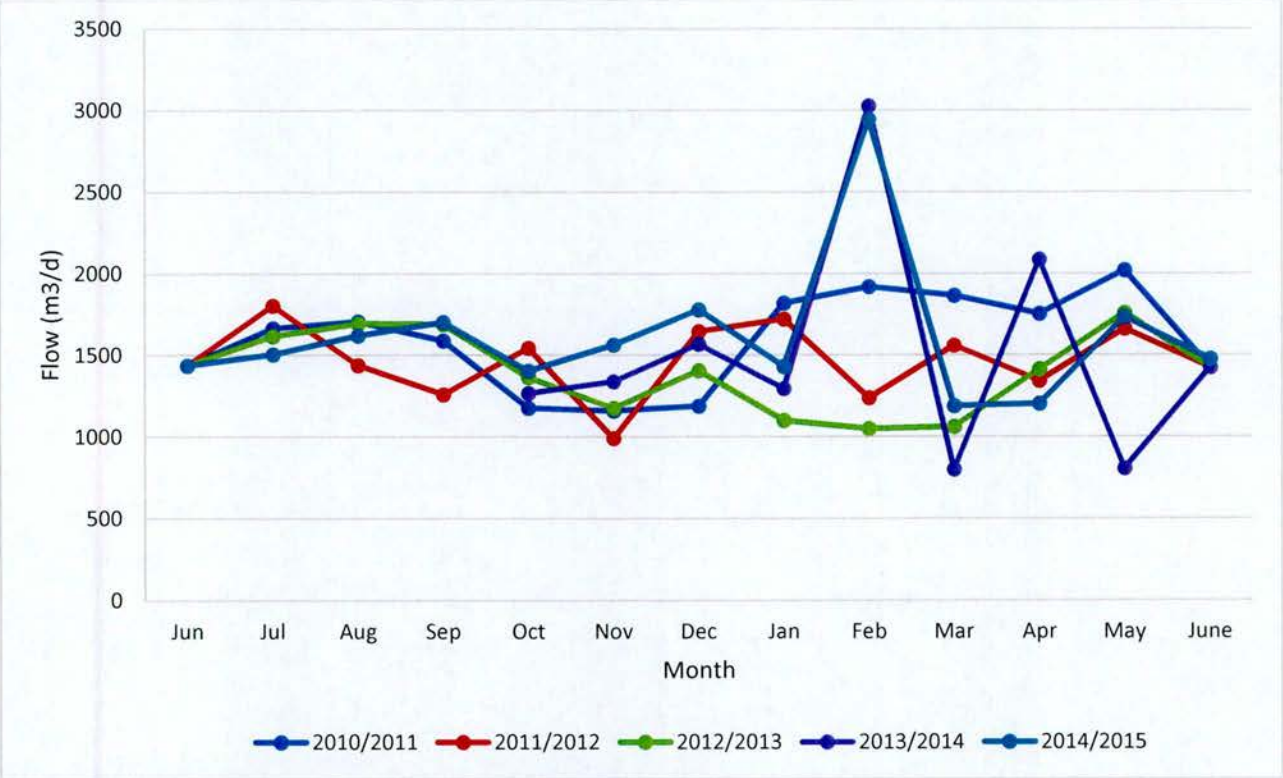


Figure 4-5: Seasonal flow variations – maximum daily discharge in m^3/day

4.5 Wastewater Quality and Contaminant Loads

Monitoring of the treatment plant occurs at a number of locations, not just to meet existing consent conditions but also to understand what is happening at stages through the treatment process as illustrated in Figure 4-6.

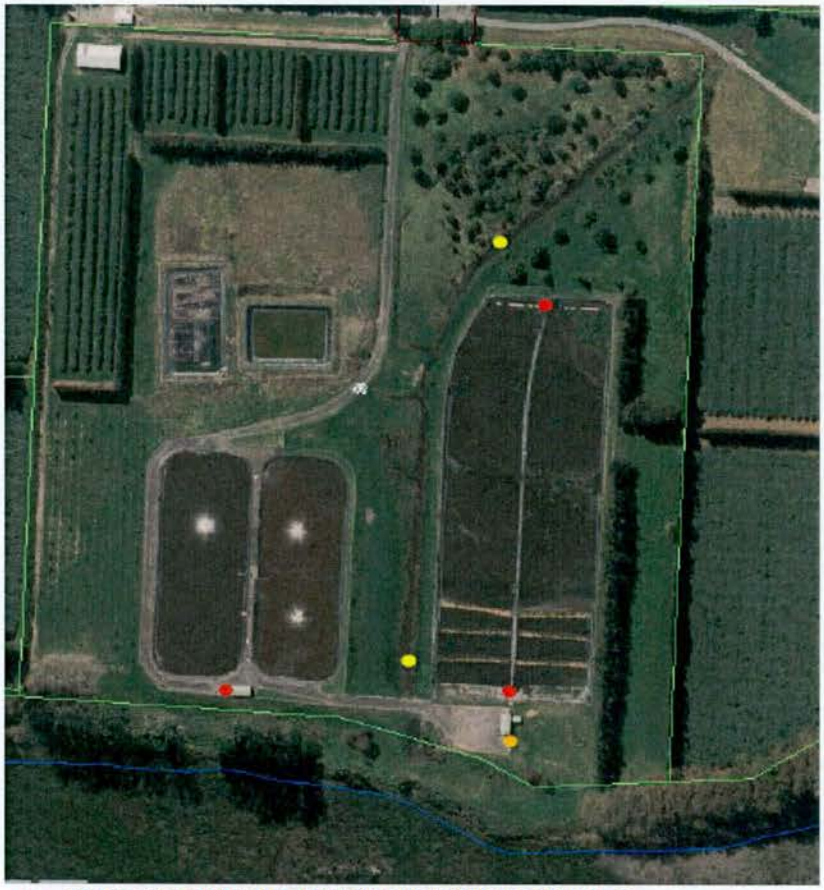


Figure 4-6: Monitoring locations at WWTP site

4.5.1 Performance of the Treatment Plant

Analysis of the pond system shows that it removes on average 85% of the total suspended solids when the flows are between 500 to 1350 m^3/d, the BOD removal rate is 90% for flows ranging between 500 to 1350 m^3/d, and removal of TN and TP is variable.

The current consent conditions specify the following compliance limits to be complied with following the UV treatment, as measured at the point where the flow leaves the WWTP and enters the pipeline:

- Median of five $cBOD_5$ daily mass shall not exceed 40 kg
- Median of five suspended solids daily mass discharges shall not exceed 40 kg
- Mean of five total nitrogen daily mass discharges shall not exceed 55 kg
- Median of faecal coliform concentration of samples takes within one month shall not exceed 500 /100mL and maximum of any sample shall not exceed 1000/mL
- The maximum enterococci concentration shall not exceed 300 per 100mL.

The effluent results have been analysed using data from 2009 until February 2016. Samples taken between 2007 and 2009 are before the floating wetland was installed and are therefore not presented in the graphs.

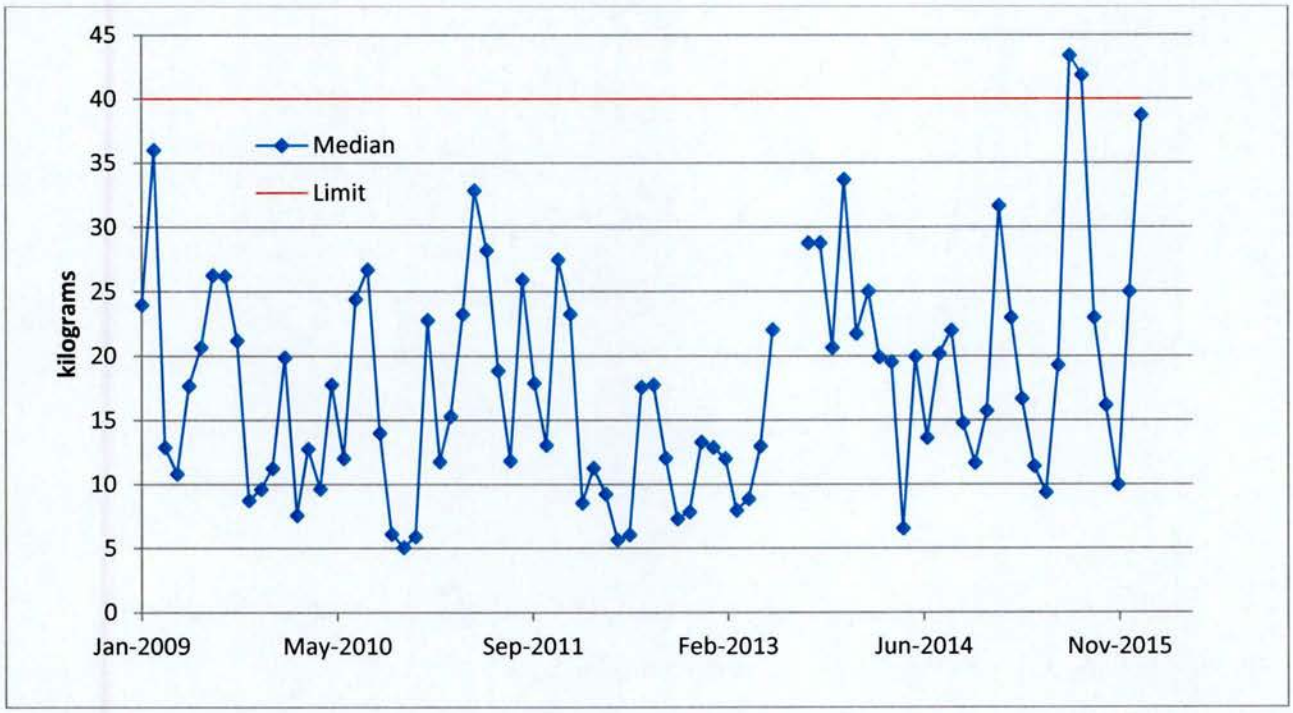


Figure 4-7: Median total suspended solids daily mass discharge in kg

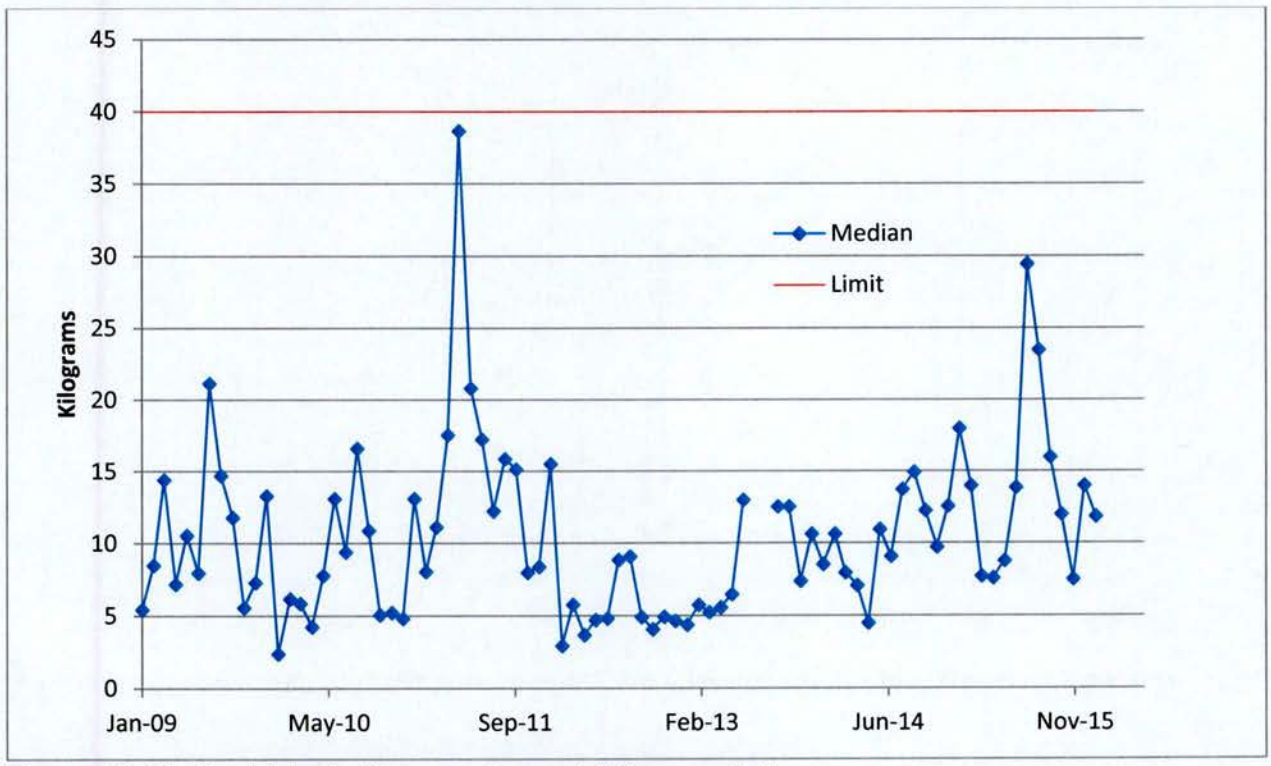


Figure 4-8: Median biological oxygen demand daily mass in kg

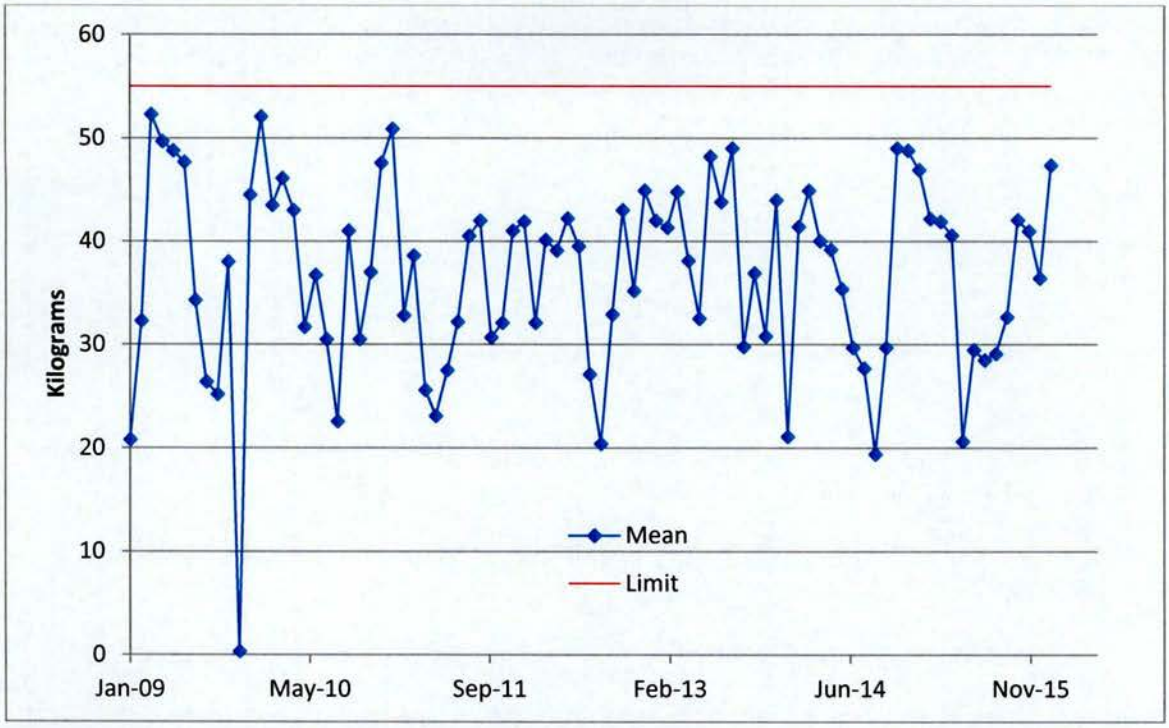


Figure 4-9: Total nitrogen mean daily mass discharge in kg

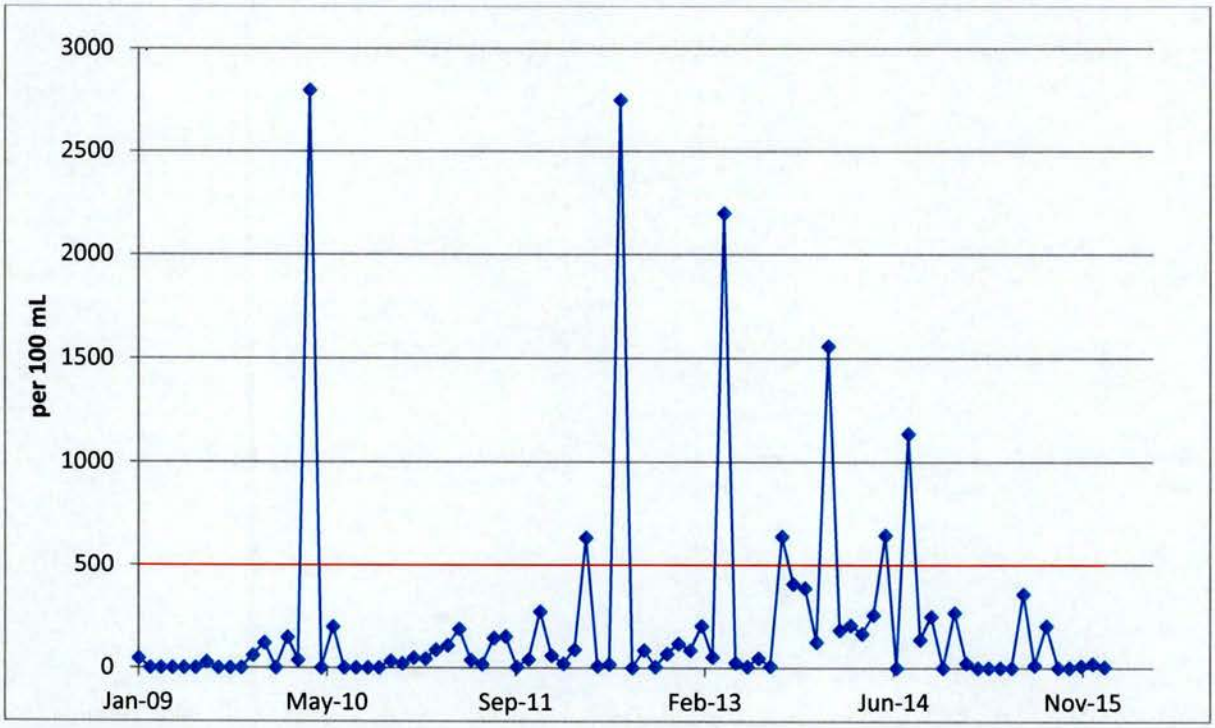


Figure 4-10: Median faecal coliform concentrations. The red line is the median concentration limit.

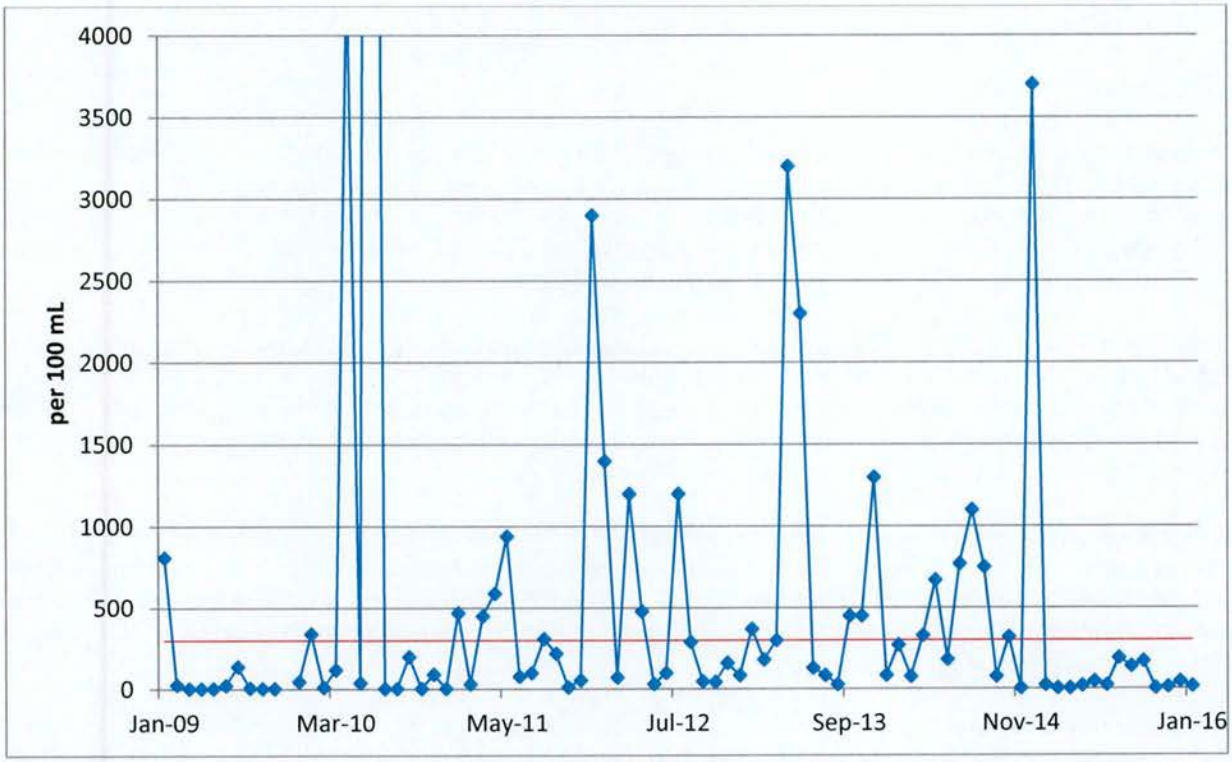


Figure 4-11: Enterococci concentrations. The red line is the maximum concentration limit.

The graphs show:

- Suspended solids: there has been continuous compliance since 2009 with the exception of two samples in July and August 2015 that exceeded the median of 40 kg/d (43.4 and 41.86 kg/d) due to the upgrade work that was occurring on the wetlands.
- Biological oxygen demand: there has been continuous compliance since 2009. The highest result was May 2001 (32.8 kg/d) when there was a heavy rainfall event.
- Total nitrogen: continuous compliance since 2009.
- Faecal coliforms: since 2009 there have been eight exceedances of the median limit and were primarily due to reduced effectiveness of the UV treatment caused by mechanical issues, high rainfall events and plant maintenance. The recent upgrades were undertaken to address these issues.
- Enterococci: the limit is based on a maximum of 300 per 100mL. This has been exceeded 29% of the time with exceedances occurring when there was work being undertaken on the plant or temporary malfunctions or in high wet weather events. For the last 12 months the maximum was 190, well within the consented limits.

The effluent is tested quarterly for heavy metals. There is no wet industry in Katikati which limits the heavy metals in the wastewater. The results over 2010 to 2015 show consistently low concentrations (all units are shown in g/m^3):

Arsenic:	<0.005 to 0.023	Chromium	<0.001 to 0.002
Mercury:	<0.001	Lead:	<0.001 to <0.002
Cadmium:	<0.001 to <0.002	Copper:	<0.001 to 0.007

Nickel: <0.001 to 0.006 Zinc: <0.005 to 0.023

4.5.2 Outfall samples

As a requirement of condition 8.2 sampling of the outfall receiving environment is undertaken quarterly (February, May, August and November each year) and includes water samples taken 200m up current and 50m, 100m and 200m down current of the outfall. At each site 10 replicates are taken meaning a total of 40 samples are taken each time. The samples are analysed for Faecal Coliforms and Enterococci. Over the period February 2007 to November 2015 the results show below.

The compliance limit at 50m under the consents is currently meeting the contact recreation standard as specified in the "Provisional Microbiological water quality guidelines for Recreational and Shellfish gathering water in New Zealand" (January 1992, Public Health Services Department of Health, Wellington). The guidelines for shellfish gathering are based on faecal coliform indicator organisms with a median of 14 MPN/100ml and no more than 10% exceeding 43 MPN/100ml.

The conditions also required investigations on the feasibility of improving the bacterial quality of the discharged effluent to a standard that will enable the reasonable mixing zone to be lessened allowing compliance with the shellfish gathering and water quality standard (as specified in the 1992 MoH guidelines) at a distance less than 50m from the outfall. In 2004 all samples complied with the faecal coliform and enterococci limits so no further feasibility investigations were undertaken.

These guidelines are dated 1992 whereas there are more recent being: ANZECC (2002), Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas (MfE/MoH, 2003) and the Proposed RCEP Water Quality Standard (Schedule 10). The latest guideline values are:

	Contact recreation		**Shellfish**
	Faecal coliforms	**Enterococci**	**Faecal coliforms**
ANZECC 2000	Median 150/100mL (max of 5 samples taken at regular intervals) 4 out of 5 samples contain < 600/100mL	Median 35/100mL Max in any 1 sample 60-100/100mL	Median should not exceed 14 MPN/100mL No more than 10% of samples should exceed 43 MPN/100mL
MfE/MoH – based on a grading approach		Green mode – no sample > 140/100mL Amber mode – single sample >140 Red Mode – 2 consecutive samples > 280	Median over a season shall not exceed 14/100mL No more than 10% of samples shall exceed 43 MPN/100mL
pRCEP	Water managed for contact recreation purposes and for the gathering or cultivating of shellfish for human consumption. Kei te ora te mauri (the mauri of the place is intact).	Must not exceed 280 cfu/100ml	

At 50m down current of the discharge the median from 2007 to 2015 was <4 for both faecal coliforms and Enterococci. One sample exceeded the 280 cfu/100mL guideline limit.

Table 4-3: Faecal coliform and Enterococci water quality results for down current sampling sites

	Faecal coliforms	Enterococci
Total number of samples (down current)	990	990
Median	<4	<4
Total <4	854	811
>43	29	26
>140	1	6
>280	1	2

When comparing the results with the proposed RCEP microbiological standard only 2 down current samples have exceeded 280 cfu/100ml. Those samples were:

Location	Sample No.	Date	Sample result
200m up current of the outfall structure	10	Feb 2011	340
50m down current of the outfall structure	20	Feb 2011	340
100m down current of the outfall structure	28	Feb 2013	450

4.5.3 Resource Consent Compliance

From 1999 up until 2007 the treatment plant generally complied with the consent requirements. In 2007 instances of non-compliance increased. It was assumed that the non-compliances were due to an increase of sludge accumulation in the two ponds. The ponds were consequently desludged. To improve treatment, especially in respected to suspended solids, a number of floating wetland rafts were installed in 2010 as a trail to assist the monitoring programme and gauge the long term performance and suitability of the floating wetlands, for this treatment plant.

Since 2010 the WWTP had variable performance which resulted in a series of upgrades the last of which was completed in November 2015, including the installation of floating wetlands to 50% of the pond.

BOPRC carried out a compliance audit on 28 October 2015 covering the previous 2 months. The audit noted:

- At the time of inspection, no odours were observed on or around the site. Screenings are being well managed within a contained shed, and the primary pond is kept in an aerobic state through aeration, ensuring minimal risk of odour travelling beyond the premises boundary.
- Results indicate that the wetland is generally kept in an aerobic state when averaged over a month; although some individual readings are particularly low (>1g/m3).
- Due to a SCADA issue in June 2015, and vandalism of the flow meter at the pigging station in September 2015, a flow balance has been unable to be calculated for some periods.
- Consented limits were exceeded in the following instances:

In December 2014, Faecal Coliforms (2300/100ml) enterococci (3700/100ml) and Total N (61.92kg/day) were elevated. It is understood that this was as a result of an issue with the UV system, which has been repaired. Subsequent coliform and nitrogen monitoring were well within limits.

In June and July 2015, upgrades to the wetlands in the final pond resulted in elevated levels of suspended solids (43.40kg/day and 41.86kg/day, respectively).

- At the time of inspection, a small amount of water was observed in the emergency overflow pond, which appeared to be treated effluent from the WWTP. Although this pond is captured and returned to the WWTP, under normal operating conditions, all treated effluent should be discharged via the outfall.

5 Description of Proposal

The proposal is to:

- Continue operating the existing WWTP and ocean outfall
- Install a new diffuser on the outfall
- Undertake investigations of the condition of the ocean outfall pipeline over the life of the consent; and
- Install a marker buoy at the end of the ocean outfall

5.1 Continued Operation

A description of the WWTP was provided in Section 4. In summary, it comprises a piped network to the site with screening and treatment provided using an inlet screen, aerated lagoons, wetland and UV disinfection. The treated wastewater is discharged via the ocean outfall.

5.1.1 Population Projections

The data presented below show the Katikati community estimated population and household projections between the years 2013 to 2053.

Table 5-1: Estimated Population and Household between the years 2015 to 2053

	2015	2023	2038	2048	2053
Estimated Population	4490	5080	6050	6050	6050
Estimated Households	1976	2500	3200	3250	3300

Note: Sourced from WBoPDC SmartGrowth Model Projection

The growth projections predicts population increase up to the year 2038 followed by a tapering off due to population aging.

5.1.2 Wastewater Flows and Quality

Table 5-2 presents the future flow estimate based on 223 l/c/d and as a function of the population increase. An average per capita flow rate of 223 l/c/d is very similar to a flow rate per capita of 220 l/c/d used in many areas around New Zealand to evaluate wastewater flow.

Table 5-2: Future flow calculations

Year	Estimated Population	Estimated Future median annual daily flow (m^3/d)
2015	4490	1003
2024	5380	1120
2038	6050	1349
2048	6050	1349
2053	6050	1349

The current median annual daily discharge flow is 1003 m^3/d, the peak dry weather flow 2708 m^3/d and the peak flow has been 3027 m^3/d. The flow rates for the year 2038 have been estimated as 1349 m^3/d (highest future median annual daily flow).

The entire wastewater flow entering the Katikati WWTP passes through a network of nine pump stations going into one main pump station that delivers the flow to the treatment plant. This arrangement allows the balance of peaks and provision of a relatively flattened inflow pattern.

The flows were investigated using a hydraulic model based on:

- The plant original design flow of 16L/s
- The maximum future flow expected during 2047 of approximately 18L/s.
- The current resource consent flow discharge limit of approximately 36L/s (the UV unit was designed to discharge flows of 36L/s).

The results from the hydraulic model indicate that:

- there are no issues in the WWTP design for the design flow, maximum future population flow and current resource consent flow (16L/s, 18L/s and 36L/s respectively).
- the existing plant infrastructure has sufficient capacity to treat flow up to 3,110 m^3/d. This flow was found to be higher than the maximum predicted flow in the years up to 2053.

Influent monitoring is carried out using monthly grab samples. While grab samples are a snapshot the monitoring since 2012 has shown that the influent characteristics are relatively consistent and within the typical range of municipal wastewater. The concentrations are not expected to vary in the future because of the domestic nature of the Katikati community.

Table 5-3: Influent characteristics 2012-2015 (taken as a grab sample)

Description	Amm-N (g/m3)	cBOD5 (g/m3)	COD (g/m3)	pH (-)	TSS (g/m3)	TKN (g/m3)	TP (g/m3)
2012 Average	40	240	547	7.4	259	54	7.5
2012 90%tile	51	311	700	7.6	357	65	9
2013 Average	44	266	584	7.6	333	66	8.5
2013 90%tile	53	315	700	7.8	402	82	10.6
2014 Average	42	265	596	7.6	289	61	8.3
2014 90%tile	51	297	728	7.7	393	86	9.4
2015 Average	46	293	705	7.5	357	66	9.5
2015 90%tile	64	491	1073	8.2	555	96	13.6
Ave all years	**43**	**266**	**608**	**7.5**	**309**	**62**	**8.5**
90%tile all years	**53**	**313**	**747**	**7.7**	**383**	**79**	**10**

The proposed treated wastewater volume limits are:

- The daily quantity of effluent discharged shall not exceed a maximum of 3700 cubic metres per day.

The proposal is a change to the current consent that has a maximum discharge of 3000 m^3/d. The reason for adopting a maximum of 3700 is that it recognises that occasionally there may be exceedances of a maximum, as has occurred in the past and allows for some growth. These exceedances do not necessarily result in effects on the environment, as the quality limits (set out below) do not change. It means those occasional exceedences will not result in a technical non-compliance with the consent conditions and it allows for some population growth.

The proposed treated wastewater consent limits, to be measured after UV treatment and prior to entering the pipe are given in Table 5-4.

Table 5-4: Wastewater consent limits

Parameter	Unit	Statistical Basis[1]	Consent Limit	Current limits
5 Day Biochemical Oxygen Demand	kg/d	Median	40	40 kg/d
Total Suspended Solids	kg/d	Median	40	40 kg/d
pH	pH units	Range	6.5 – 8.5	-
Total Nitrogen	kg/d	Mean	55	Mean 55 kg/d
Faecal Coliforms	Number/100mL	Median	500	500
		Maximum	1000	1000
		Maximum	300	300

1 the median and percentile shall be calculated on a rolling basis from 52 consecutive samples

No limits for heavy metals are proposed as the wastewater is primarily domestic in origin.

5.2 Outfall Diffuser

To improve the performance of the outfall, and in keeping with best practice, the current outfall diffuser is to be replaced with the work to be done in three stages.

A concept design for the diffuser has been prepared and is contained in Appendix 3. However WBOPDC needs to undertake a survey in order to confirm the design. WBOPDC proposes to install the new diffuser no later than 24 months of the consents being obtained.

5.2.1 Survey

The purpose of the survey is to investigate the condition of the end point of the outfall pipe to so to confirm the design of the diffuser. The tasks required are:

- Drive test anchors and piles to confirm suitability of the anchoring methods / configuration
- Excavate around the pipe so to uncover the connection flange on the main pipeline. Seabed material around the pipeline will be 'removed' using a submersible pump. Once uncovered the flange will be inspected for any signs of degradation.
- Testing of the end point of the pipe will be done in-situ and measurements taken of the flange configuration.

Once the inspection and testing is done, it is expected that the seabed materials will remobilise naturally and cover the pipeline again.

5.2.2 Replacement

Having confirmed the condition of the point where the diffuser will be connected to, and the anchoring method, the design of the diffuser will be confirmed. A copy of the final design will be supplied to the Regional Council for certification before being installed.

The physical works required to replace the diffuser are:

- Excavate around the pipe so to uncover the connection flange on the main pipeline. Material around the pipeline will be 'removed' using a submersible pump.
- Once the connection flange is uncovered, the end section of the pipeline will be removed.
- A new pre-assembled heavy duty hose and flange will be fitted
- Screw piles will be installed at appropriate positions to accommodate the new diffuser section
- The new diffuser will be fitted and a protection structure
- Inspection and CCTV survey of the new diffuser and supporting structure

The works will be carried out from a boat using divers.

Confirmation that the diffuser has been installed in accordance with the design drawings will be supplied to the Regional Council.

5.2.3 Test

Once the diffuser is in place, WBOPDC intends to confirm its efficiency by modelling and/or using dye testing. Dye tests can be either qualitative or quantitative, but generally not both simultaneously. If dye testing is the method selected, a qualitative study would be done in the first instance. Both options are effective and WBOPDC would prefer to leave both open at this stage, particularly given the design of the diffuser is yet to be finalised.

5.3 Pipeline Investigation

During consultation the integrity, and therefore life of the pipeline was a matter raised. WBOPDC have undertaken past investigations but would like to test and investigate other sections of pipe within Tauranga Harbour. The harbour area has significant cultural value and WBOPDC has consulted with tangata whenua. While areas that should be avoided were identified, no specific location has been confirmed. The exact location will be confirmed each time an investigation is done following consultation.

The works will involve disturbance of the seabed to uncover the pipe. The work will be limited to:

- Visual inspections undertaken by disturbing the seabed to uncover the pipe
- Removal of sections of pipe for further analysis.

WBOPDC have agreed with tangata whenua that:

(i) Prior to undertaking any inspections the locations and methodology shall be agreed between the Consent Holder and Tangata Whenua;

(ii) The Regional Council will be notified no less than 5 working days prior to any inspection of the location, nature and timing of the inspection;
(iii) Tangata Whenua shall be provided with the opportunity to monitor any inspection works; and
(iv) Within one month of any visual inspection or of receiving the results of any pipeline testing, the Consent Holder shall provide a copy of the information obtained to the Regional Council and Tangata Whenua.

This has been included in the proposed consent conditions, along with a requirement to undertake at least one investigation within the first 10 years of the consent and provide a report to Regional Council.

5.4 Marker Buoy

Tangata whenua have requested that a marker buoy be installed at the end of the outfall so the location is identified.

If considered as a structure, installation of the buoy would require resource consent and may require approval under the Bay of Plenty Regional Navigation Safety Bylaw (approval of the Harbourmaster).

5.5 Ongoing Management

5.5.1 General

As with any infrastructure facility, there are daily, weekly and monthly tasks and ongoing maintenance works. For the Katikati WWTS, these are as follows:

Daily duties	Weekly duties	Bi-monthly duties	Monthly duties
Check SCADA, alarms, pump stations Visual inspection of plant and effluent Check step screen and inflow bar screen, clean if necessary Check the DO probe, clean if necessary Record daily flows Fill in daily log Keep buildings and grounds clean and tidy Check and top up chlorine, if being dosed Check operation of the UV plant, clean inlet weir plate Ensure screenings are removed regularly	Check calibration of DO meter and calibrate if required Collect samples for compliance monitoring Inspect wetlands for weeds, birds, plan for the removal if any found Hose aeration lagoon liners, scoop up fat and other floating material, dispose with screenings Lift, inspect and hose UV lamps Check and clean (hose) aeration lagoon outlets Clear rock bunds of weeds, leaves, dead or dying plant material Check flow meters are operating	Acid clean UV lamps and channels	Spray rock bunds with Round-up Check screen planting maintenance and mowing is being carried out Check vermin control is being carried out Clean filter screens on pressure release valve at discharge pump station

There is an existing Operations and Management Manual that was prepared under the existing conditions. WBOPDC propose to update this Manual and to include the environmental monitoring to form a comprehensive and integrated 'Operation, Maintenance and Environment Plan'. The proposed objectives and minimum requirements are set out in the proposed conditions (refer condition 11 in Appendix 8).

Treatment plant maintenance falls into two categories:

- Planned maintenance - Preventative maintenance carried out to a predetermined schedule with the aim of ensuring continuity of service capacity, preserving asset design life and, if economic, extending asset life (e.g. the inspection of critical system components, replacement of minor components, greasing mechanical equipment, etc.). On-condition maintenance carried out as a result of condition or performance evaluations of assets and asset components (e.g. pump overhauls, valve maintenance).

- Unplanned maintenance - Unplanned maintenance activities are repairs to broken and blocked sewers/rising mains and attendance to sewer overflows during emergency storm events.

The Operation, Maintenance and Environment Plan (or OMEP) will include further detail on, among other things, the ongoing maintenance works outlined above where these are planned, and also protocols on dealing with unplanned and emergency events.

5.5.2 Contingency Measures

Risk management is also an important component of operating a wastewater treatment scheme. Depending on the severity of the impact on the asset, the result could vary from minor effects on levels of service through to sewer overflows and an inability to treat wastewater resulting in the contamination of waterways for an extended period of time. Backups are also in place for things like power failure. Risks identified for this asset includes:

- Structural failure to the treatment plant;

- High flows due to widespread flooding/infiltration;

- Pump station failures;

- Structural damage to infrastructure from an earthquake; and

- Flooding and damage of treatment plants due to tsunami.

Pump failures are controlled by automatic starting of standby pumps and activation of an alarm signal to alter that the pump must be investigated and repaired. The aerate lagoons can operate without significant malfunction for about 48 hours following an aerator failure – this is sufficient time to repairs or installation of a temporary aerator.

If there is a power outage of the UV system, a valve automatically closes off from the wetland and effluent is stored in the wetland until the system receives power. During wet weather the emergency ponds can be used. To pond is only used in extreme situations and stores raw untreated sewerage from the oxidation ponds. Use of the pond is controlled manually. The proposed conditions include the requirement to maintain and keep a complaints register for all complaints received and to detail the investigation and outcome. This includes any corrective action undertaken.

The WWTP has been designed, and is maintained to ensure that there are no discernible offensive odours created beyond the boundary of the site. This includes the screen being in an enclosed building and the monitoring of dissolved oxygen (DO) levels in the lagoons. The aerators are activated when the DO levels drop below acceptable levels.

5.5.3 Desludging

Over time sludge accumulates in the first lagoon with only a minor build up in the second. The depth of the sludge is checked annually. Since the WWTP was commissioned, desludging of the ponds has occurred only once in 2009 and the wetlands as part of the recent upgrades. It is expected that further desludging will be required over the life of the consent.

At any time either of the two lagoons can be removed from the treatment process, should maintenance be required. Sludge removal is timed for dry weather conditions and carried out as quickly and efficiently as possible. The sludge is placed in dry bags (geobags) and put in the dewatering ponds. Any liquid is returned to the start of the treatment process for further treatment.

Disposal of biosolids does not form part of this application. WBOPC currently holds resource consent to apply biosolids to land in the Waihi area.

5.5.4 Specific Measures

There are a number of management measures that WBOPDC have implemented or are presently underway in order to manage the volume of wastewater that ends up at the WWTP.

Infiltration and Inflows

WBOPDC have implemented an Infiltration and inflow programme. Inflow refers to rainwater entering the wastewater system. This can result from building downpipes being directly connected to the wastewater system, gully traps low to the ground and manholes located in gullies. Infiltration can occur when groundwater enters the system through faulty pipe joints. Together inflows and infiltration compromise the wastewater treatment process, increase costs and can lead to overflows.

WBOPDC have been undertaking flow analysis over the past 12 months at key locations across Katikati. The information has been used to identify catchments where stormwater may be entering the network. They are now investigating further by inspecting gully/traps, smoke testing and CCTV to target inflow and infiltration. WBOPDC has a program in the Long Term Plan to continue to investigate and reduce inflow and infiltration into the wastewater network. They have also purchased and installed 'rain stopper devices' in low lying manholes where stormwater may flow into the wastewater network.

Water metering

A District wide water metering programme is underway. Katikati (western supply zone) is due to have meters installed over 2016/17 and 2017/18. The benefits of water metering include water conservation and reduced wastewater which results in operation savings and delays the need to upgrade infrastructure. For example, in Omokoroa water consumption reduced by 17.5% since the completion of water meter installations.

Trade Waste Management

The Trade Waste Bylaw 2008 manages any discharges of trade waste to the sewer. Trade waste is not a significant component of the waste stream from Katikati.

5.6 Term of Consent

WBOPDC seek renewal of the existing ocean outfall discharge permit (and associated investigations of the pipeline) for a period of 20 years and the air discharge for 35 years for the following reasons:

- WBOPDC has made a significant investment of over $2m in the Katikati WWTP including recent upgrades and further upgrades are identified in the Long Term Plan.

- The expected remaining life of the pipeline is 20 years. The pipeline is a significant physical resource and it is efficient to continue its use in the manner proposed.

- The WWTS has the capacity to accommodate future growth.

- The adverse environmental effects of the ongoing operation of the WWTS are minor or can be addressed to an appropriate extent via the proposed conditions of consent, including the proposed provision made for the involvement of tangata whenua in the conditions.

- A longer period avoids the costs of consent renewal requirements occurring regularly and the uncertainties associated with having to reapply.

- It provides a reasonable period of time to complete the alternative investigations, secure funding, consent and build a new disposal option, particularly recognising that given this is not necessarily a straightforward process given not only the costs but the need for any alternative to comply with other policy, including the National Policy Statement for Freshwater Management. The options analysis process that has recently been started has excluded cost to date and this needs to be considered and planned for over a longer period and included in the Long Term Plan.

6 Consultation and Engagement

A range of consultation methods have been utilised to inform the community and stakeholders of the proposal and to provide opportunities for feedback. Consultation undertaken to date is discussed below.

6.1 Consultation with iwi

Matakana and Rangiwaea Islands hapū

An initial briefing about the consent project was provided in April 2015 prior to WBOPDC engaging a consultant to be involved in the reconsenting. Following this a 'Stakeholder Steering Group' comprising representatives of Te Whanau A Tauwhao, Ngati Tauaiti, Te Hgere, Ngai Tuwhiwhia and Ngai Tamawhairua was formed and have meet regularly.

While the focus has been on the consent project, the hui have provided a mechanism to raise other matters concerning the hapū. The Steering Group have meet formally and informally a number of times between July 2015 and April 2016, including a site visit to the WWTP.

A record of the meetings is in Appendix 5. Discussions have included the history and issues around the treatment plant and pipeline, the design of the ocean outfall survey, performance of the plant, the alternative options process, progress on the consent application, integrity of the pipeline and potential further investigation ('dig up the pipe'), commissioning the Cultural Impact Assessment, draft consent conditions, term of consent and ongoing monitoring of the discharge. The hui have facilitated valuable exchanges of views and information between the various hapū and Council.

The CIA for the Matakana and Rangiwaea Islands hapū states: "*The tangata whenua of Matakana Island has always vehemently opposed the Katikati Sewerage Pipeline and feel that the whole process from its inception has been fundamentally flawed and has seriously undermined and breached the principles of 'Partnership' and 'Protection' of the Treaty of Waitangi.*"

An outcome of the discussions has been an agreement by WBOPDC to repeat the ocean outfall survey and engage independent advice for the hapū on the design and monitoring results as well as ongoing involvement in the monitoring and investigation of alternative options.

The CIA recommendations are and applicant comments are as follows:

CIA recommendation	Comment
All monitoring involve tangata whenua in the data collection	WBOPDC have involved tangata whenua in recent monitoring and are committed to this continuing. WBOPDC is proposing Condition 9.9 which requires the Consent Holder to invite at least one representative from Matakana and Rangiwaea Islands Hapū to be involved in the monitoring and pay the reasonable costs of their involvement.
That the council sought an alternative discharge point before 2035	WBOPDC have committed to investigating alternatives and lodging any applications for approvals required prior to the expiry of these consents (expected to be around 2037 depending when the consents commence.) The investigation process and requirement to apply for any authorisations are set out in the proposed conditions, and tangata whenua are to be involved in this process.

Acknowledgement by council to the communication framework within the Matakana and Rangiwaea Islands – Hapu Management Plan	WBOPDC acknowledge that the framework will form the basis for ongoing collaboration
To allow for more compliance testing and monitoring of Tuatua beds for the duration of the consent sought	The proposed conditions include ongoing monitoring of tuatua beds – Condition 9.5
Resource Consents with regard to the continued discharge need to be more robust to align with international water quality standards	The proposed conditions and the assessment of effects adopt standards set through the pRCEP and include a mix of international standards as well as New Zealand standards. These are considered to be appropriate.
That the council deliver a summary of the annual and quarterly monitoring in layman's terms for the general public and community to understand.	The proposed conditions include supplying results on a quarterly basis in a format agreed with tangata whenua and a requirement for a meeting with tangata whenau prior to the annual report being submitted to explain the contents – Conditions 10.5 and 10.6

Northern Ngai te Rangi hapū

Separate meetings have been held with Te Whanau a Tauwhao (Otawhiwhi Marae) and Ngai Tamawhariua (Te Rereatukahia Marae) between November 2015 and April 2016. The discussions have included a site visit, work being undertaken for the consent project, ongoing monitoring of the discharge, term of consent, the draft consent application and preparation of the Cultural Impact Assessment.

The CIA states: "*Dumping sewage into the ocean (and all other waterways) is abhorrent to Maori. It negatively affects the Mauri, Mana, Tapu, Ihi (excitement, power, charm, magnetism) and Wehi (awe, fear, dread) of the ocean. It also negatively affects our duty of care as kaitiaki and our cultural practices are eroded and damaged as a result.*"

The CIA recommendations are and applicant comments are as follows:

CIA recommendation	**Comment**
Limit the resource consent to five years, and if required, to explain to the Regional Council, kanohi ki te kanohi (face to face) why, prior to granting any resource consent.	WBOPDC are seeking a term greater than 5 years for the reasons set out in section 5.6.
Engage Maori in partnership, to decide on an appropriate alternative to dumping sewage in the ocean - Specifically to include representatives of the hapu of the Tangata Whenua of the Northern Reaches of the Tauranga Moana Harbour (centred on Te Rereatukahia, Tuapiro and Otawhiwhi)	WBOPDC has proposed an alternatives investigation process in Condition 12, which requires it to invite at least one representative of the northern Ngai Te Rangi hapū (defined as Ngai Tamawhariua (Te Rereatukahia marae), Ngati te Wai (Tuapiro marae) and Te Whanau o Tauwhao (Otawhiwhi marae)) to be part of Te Ohu Wairoa, the panel tasked with completing the Alternatives Investigation. Te Ohu Wairoa will make a recommendation to WBOPDC, but is not a decision-making body. As the local authority, WBOPDC must make the final decision in relation to infrastructure that it must fund on behalf of the ratepayers.

Engage with Maori in partnership for ongoing monitoring of performance of any sewage disposal - Specifically to include representatives of the Tangata Whenua of the Northern Reaches of the Tauranga Moana Harbour (centred on Te Rereatukahia, Tuapiro and Otawhiwhi)	WBOPDC have proposed conditions requiring monitoring of the discharge at the WWTP in Katikati and a requirement to invite a member of the Northern Ngati Te Rangi Hapū to be involved in that monitoring. The conditions also allow for hapū involvement.

NB. Engagement in this context means meaningful collaboration, communication, building and maintaining positive relationships and participation in Council decision-making.

6.2 Wider Community

Three public open days were held which anyone from the community could attend. These were advertised on the Council website and in local media. The first was held on 13 February 2016. Information about the WWTS and the consent process was also on display at the Katikati Service centre/library.

Due to a low number of people that attended the first open day a second open day was held on Thursday, 14 April from 4.30pm-7pm in the Katikati Library and Service Centre where staff and Councillors were present to explain the consent process and talk with people. A third was held on Saturday, 16 April, 9am until 1pm, and included guided tours of the treatment plant.

While there was a small turnout at the second open day, those that attended had questions around the consenting process. One of the attendees was a property owner that owns land neighbouring the treatment plant. They commented that historically there has not been any smell from the treatment plant.

Approximately 80 people attended the third open day. While great feedback was received on being able to visit the treatment plant, comments received were of a general nature including support for the consent renewal.

The purpose of the open days was to inform the community about the Proposal, seek feedback on the consent renewal and provide the opportunity to raise any concerns people may have about the Proposal.

On 28 February 2016 WBOPDC staff attended a Matakana Island Community hui to discuss the consent project. An overview of the Proposal and alternative process was presented.

6.3 Department of Conservation

A meeting was held with Mark Anderson, Partnerships Ranger, Department of Conservation on 7 April 2016 to inform the Department of the consent renewal proposal and understand any potential effects on the Department's interest. The meeting was held jointly with the Te Puke WWTS consent renewal team. No specific feedback was provided at the meeting.

6.4 Public Health

A meeting was held with Annaka Davis, Health Protection Officer, Health Protection Team, Bay of Plenty District Health Board on the 11 April 2016. The meeting was held jointly with the Te Puke WWTP consent renewal team. A wide range of matters were discussed and written comments were provided following the meeting:

I wish to take this opportunity to note the aspects we discussed and that we would like to see within your applications. To provide confidence that public health will be protected from the continuation of wastewater and air discharges we would expect to see:

Comment	Response
That the discharges to water do not render recreational water used for bathing or the collection of wild food to be unfit for consumption.	WBOPDC has proposed a condition to address this concern - Condition 8.6
That the discharges to air from the treatment of sewage do not go past the boundary of the property.	WBOPDC has proposed this as a condition –Condition 4.1 of the air discharge permit.
Regular improvements to municipal wastewater systems such as the level of treatment and monitoring parameters.	There is a regular programme of renewals. More robust monitoring is proposed - Conditions 8.4-8.6, 9, and 10.2(g)
Regular and thorough reviews of the treatment system to ensure the most up to date technology and research are utilised.	The proposed conditions include an alternatives investigation process – Conditions 10.2(g), 11.5(b)(vii) and 12
A multi-barrier approach to system failure that leads to partially or untreated sewage being discharged.	The OMEP will include all the procedures, including response to incidents – condition 11
Measures to prevent unauthorised access to the WWTP sites.	The site is fenced
Assessment of the impacts of climate change will have on the treatment plant and disposal system over the duration of the consent.	An assessment is provided in section 10. Any changes to operation required as a result of climate change (which is not expected) would need to be reported on, and the Consent Authority also has the ability to review the conditions should issues arise.
Monitoring frequency sufficient to provide assurance the plant is operating effectively and efficiently at all times.	Regular monitoring is proposed – conditions 8.4, 8.5, 8.6, 9, 9.3, 9.5 and 10.2(g)
The discharge quality include a maximum bacterial limit to identify inadequate treatment issues and provide an assurance that monitoring is identifying an accurate reflection of wastewater quality.	Maximums are proposed – condition 8.5
Monitoring limits which trigger investigation of potential non-compliance throughout the treatment process.	The conditions proposed include investigating non-compliances – Conditions 13 and 11.5(d)(ii)
The correct and up to date bacterial indicator parameter used and in the correct sampling situation. E.coli is the preferred effluent quality parameter.	A range of bacteria indicators are proposed – Conditions 8.4, 8.5, 8.6 and 9
UV treatment should have online monitoring of turbidity and transmissivity to ensure the UV treatment unit operates effectively and as planned for.	Transmissivity is measured at the UV plant
Contingency measures to reduce unplanned overflows or partially treated effluent discharging and how these will be responded to.	Contingency measures are outlined and will be included in the OMEP – Condition 11
Contingency measures should odour be discharged beyond the boundary and how such incidents will be responded to.	

An escalation response process to address odour beyond the boundary and also complaints relating to odour	
Scoping and planning future options to manage sewage sludge treatment and/or biosolid disposal for the duration of the consent sought.	Biosolid disposal is proposed offsite
Both plants and disposal sites currently have dwellings located nearby. Odour from sewage treatment is by its very nature offensive and will have a low acceptance threshold by the public. Measures to manage odour and prevent health nuisances caused by odour should be included in the applications. Management strategies to secure sufficient area to create effective buffer zones around each plant to safeguard the wastewater plants in the future from land use change and intensification.	A buffer zone already exists and proposed conditions regulate the discharge of odour. The proposed conditions also include a requirement for an Odour Management Plan that details the management strategies for ensuring offensive odour issues do not arise.
Notification to the Medical Officer of Health of discharges from the reticulated network or directly from the plant of partially or untreated wastewater. This is because a non-compliance that may be deemed to have a minor environmental consequence has the potential to present a public health risk of varying degrees.	Proposed condition 13 requires the consent holder to notify the Medical Officer of Health of any incidents that could result in an exceedence of the consent limits.
We suggest that public health input be sought early on in the process when considering discharge alternatives from the Katikati WWTP.	The proposed conditions do not directly address this but WBOPDC intends to consult with public health authorities regarding possible alternatives as a matter of good practice.

6.5 Regional Council

Two pre-lodgement meetings were held with Bay of Plenty Regional Council staff. The first meeting in 2015 was of a general nature. The second meeting was on 1 March 2016 with Consents Officers Marlene Bosch and Jemma Hollis to discuss Katikati and Te Puke consent applications and the consenting process.

In September-October 2015 the design of the ocean outfall survey was provided to Stephen Park, Senior Environmental Scientist – Marine Ecology at the Regional Council. He suggested adding or shifting the control site a little further away. This had already been done in the Proposal, so this recommendation has been addressed. His other comment was about the inherent practicalities of setting sampling sites for shellfish but not always being able to sample in specified locations of they are not present. These difficulties are acknowledged and the proposed monitoring programme allows for flexibility.

6.6 Summary

The responses received on the Proposal enhanced the project team's understanding of the history of the pipeline and area and the values that are important to people. In particular, the responses from tangata whenua highlight the strong feelings about the pipeline history.

Consultation and engagement will be ongoing as monitoring of the scheme continues and investigations into alternative disposal options are progressed. There is also particular provision in the consent conditions for ongoing involvement for tangata whenua in particular, as well as community representatives, and for information sharing.

7 Consideration of Alternatives

7.1 Overview

Section 105(1) of the RMA states that for a consent application for an activity that would contravene section 15, a consent authority must have regard to several matters in addition to those outlined in section 104(1), including *"any possible alternative methods of discharge, including discharge into any other receiving environment"*.

The current resource consent for the existing WWTS required that WBOPDC investigate alternative disposal options with a view to ceasing use of the ocean outfall at expiry of the consent. Best endeavours to meet the commitment were required but the condition acknowledged that there could be no guarantee that the Council would be able to provide a practical alternative at the expiry of the consent.

The conditions required reports to be submitted to the Regional Council in 2007 and in 2012 regarding the alternatives.

Those investigations examined a number of disposal options but concluded that there was no favourable alternative available at that stage and the continuation of the status quo, being use of the ocean outfall, was the most appropriate.

This section reviews the previous investigations and the recently commenced options assessment. The full alternatives report, including previous investigation reports is in Volume B.

7.2 Overview of Earlier Investigations

In 2007 WBOPDC commissioned engineering company Duffill Watts to prepare a report[8] on alternatives, as required by the current consent conditions.

The report notes that:

- since earlier investigations treatment technology has advanced in that membrane filter technology moved from being unproven to a reliable process available for effluent polishing and to remove suspended solids and pathogens
- there had been no similar technological advancement of alternatives for disposal
- the four alternatives identified and investigated as part of the work in 1994 – 1997 (the work to support the current consent) remain the only alternatives that can be considered as a substitute for the ocean outfall.

Four alternatives investigated were;

A. **Discharge to an alternative receiving water** – the alternative identified was a discharge to Tauranga Harbour or Uretara Stream. The option was discounted due to concerns about nitrogen levels and the effect this would have on the receiving environment

B. **Slow rate irrigation on forested land on Matakana Island** - the pipeline across Tauranga Harbour would still be required but the effluent would be piped to a location on the Island where it could be irrigated on established commercial pine forest. The option was not pursed given land ownership and challenges with operating a land application system in commercial forest.

[8] Duffill Watts, October 2007, Katikati Wastewater Treatment and Disposal System and Report on Treated Effluent Discharge Alternatives

C. **Slow rate irrigation on farmland converted to forested land on the mainland** – the required land area was identified as 95 ha including buffer zones. Land application requires that nitrogen be removed from the wastewater so that it does not enter groundwater and surface water. As the treatment plant had not specifically been designed to remove the required levels of nitrogen, the risk of nitrate impacts on receiving streams and the harbour was considered as unacceptable.

D. **Effluent reuse for horticulture, pastoral or parks and reserves irrigation** – treated effluent would be applied to land during the summer months so it wold only be a part time solution. It was considered that there would not be interest from landowners as: there is sufficient water for irrigation, dairy farmers have a policy not to irrigate with wastewater and sufficient parks/reserve area within reasonable proximity to the treatment plant was not likely.

An upgrade to the treatment process was also identified with new technology available (ie. membrane filtration). However, the report notes that given the monitoring indicated no evidence of adverse environmental effects, an upgrade was considered unnecessary.

The report concludes that:

> "...at this stage no favourable alternative to the ocean outfall discharge has been identified."

In 2012 further investigations were carried out by URS and reported in October 2012[9]. The approach was a:

- Desktop review of the 2007 report
- Review of changes in legislation that had occurred since the 2007 report with the focus on changes that could have an impact on the alternative options contained in the 2007 report being:
  - Proposed Regional Policy Statement
  - Regional Coastal Environment Plan 2002
  - Regional Water and Land Plan 2008
  - District Plan
  - National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES)
- Review of treatment plant process changes that have been implement or were being proposed:
  - Operational process changes implemented at the treatment plant since 2007
  - Any significant maintenance works undertaken since 2007, for example de-sludging of the oxidation ponds
  - Measures implemented or being proposed, to mitigate the impact of the current treatment plant disposal
  - Records of treatment plant discharge testing and sampling results.

The options reviewed were the same:

A. Discharge to an alternative receiving water – the conclusion remained the same; a discharge to the harbour or stream are less environmentally acceptable than the status quo

B. Slow rate irrigation on forested land on Matakana Island – the issues were the same as in 2007

C. Slow rate irrigation on farmland converted to forested land on the mainland – was considered as undesirable due to cost and land suitability

[9] URS, October 2012, Katikati Wastewater Treatment Plant Consent – 2012 Disposal Options Report

D. Effluent reuse for horticulture, pastoral or parks and reserves irrigation – less favourable than the status quo as only a part time solution.

The review concluded that:

> "...the operational and maintenance changes that have been implement, together with the mitigation measures implemented, and being proposed, would have a positive impact on the performance and capacity of the current outfall and further minimise environmental risks."

and

> "...based on the current information the currently consented discharge to the Pacific Ocean remains the preferred option."

7.3 Current Investigations

WBOPDC's view is that the pipeline is an existing asset that should be utilised until the end of its life so long as any adverse environmental effects are able to be appropriately managed. However the Council is aware that the pipeline has a fixed life and beyond that there needs to be an alternative solution. It is also cognisant of the views of tangata whenua regarding the pipeline and has committed to finding an alternative to the pipeline prior to the expiry of the 20 year consent term.

In mid-2015 a Steering Group comprising representatives from tangata whenua and the community was formed and on 17th December 2015 an alternatives workshop was held with representative(s) from:

- Western Bay of Plenty District Council
- The five Hapū of Matakana and Rangiwaea Islands; Ngati Tauaiti, Ngai Tuwhiwhia and Ngai Tamawhariua based at Matakana Island, and Te Whanau a Tauwhao and Te Ngare who are located at Rangiwaea Island, Tauranga
- The Hapū of Te Rereatukahia, Tuapiro and Otawhiwhi
-
- Katikati Community Board
- Katikati Community

The proposed consent conditions include an alternatives investigation process which includes a requirement to set up and administer a wastewater working group (the name of the group is still to be confirmed) comprising representatives of the council, tangata whenua, and the wider community, that will be tasked with undertaking the investigation into alternatives.

The purpose of the workshop was to shortlist 2-3 options for further investigation during the term of the new consent.

The assessment of the options at the workshop adopted a Multi Criteria Analysis approach whereby the criteria to assess the options were weighted and the options scored against the criteria.

The three options shortlisted for further investigation are:

- Land Disposal – to pasture or forestry
- Beneficial Reuse – horticulture / parks / reserves / gardens

- Surface Water – river / stream / harbour

At the workshop it was agreed that should, during the process of investigating the shortlisted options, other options be deemed to be worth investigating, the working group would not be limited to the shortlist. For example, deep well injection and potable reuse were identified at the workshop as options that may require some further consideration.

The conditions requiring the investigations set out:

- Membership and role of the wastewater working group;
- Timeframes for the investigations and implementing the alternative; and
- Reporting of progress and the submission of a Future Directions Report identifying the option to be pursued.

WBOPDC have committed to forming the working group and commencing investigations ahead of the outcome of this consent process. The intention is to have tangata whenua and community representatives on the working group and that work will first start on the terms of reference.

8 Assessment of Environmental Effects

8.1 Overview

In accordance with section 104 of the RMA 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.

> *In the RMA, unless the context otherwise requires, the term effect includes—*
>
> *(a) any positive or adverse effect; and*
>
> *(b) any temporary or permanent effect; and*
>
> *(c) any past, present, or future effect; and*
>
> *(d) any cumulative effect which arises over time or in combination with other effects—*
>
> *regardless of the scale, intensity, duration, or frequency of the effect, and also includes—*
>
> *(e) any potential effect of high probability; and*
>
> *(f) any potential effect of low probability which has a high potential impact.*

The following assessment of effects associated with the proposal has been prepared on the basis of the matters set out in the Fourth Schedule to the RMA that should be considered when preparing an assessment of effects on the environment (AEE).

Mitigation measures are identified in each section where relevant. The proposed conditions contained in Appendix 6 implement the mitigation measures, where appropriate. In addition, the recommended approach to environmental monitoring is set out in section 9 of this AEE.

The following potential effects of the Proposal have been identified and are addressed in this section:

- Positive effects
- Temporary effects
- Effects on water quality
- Effects on marine ecosystems
- Effects on public health
- Effects on cultural values / cultural effects
- Effects on recreation and amenity values

For completeness, the pipeline is sub-surface across its entire length and there are therefore considered to be no landscape effects.

The effects of the discharge have been previously assessed by Kingett Mitchell (2006) for ecology, sediments and water quality. In November 2015 a comprehensive ocean outfall survey was undertaken by divers and overseen by a marine ecologist. Both reports are included in the AEE in Volume B. The survey replicated the 2006 survey so that any temporal changes could be assessed. However it was also expanded in 2015 to

include additional sites and parameters including heavy metals and shellfish that were identified in consultation with tangata whenua.

Site locations were chosen for the following reasons and may be considered as three groups: (i) sites potentially impacted by the outfall as they are immediately up and down the coast from the exit point (Kingett Mitchell, 2006); (ii) sites that are potentially impacted by the outfall close to shore and out to sea from the exit point; and (iii) sites E1000 and E4000 are considered to be sufficiently away from the outfall and from any primary influence and are regarded as the control sites.

Samples	Analysis undertaken
Sediment	Texture Chemical including nutrients and heavy metals
Water	Physical properties: temperature, salinity, pH, conductivity Nutrients Bacteria Visual effects
Fauna	Infauna samples identified to lowest possible taxonomic level
Shellfish	Tautua samples for bacteria and heavy metals

8.2 Positive Effects

The WWTS provides an important service to the Katikati community by collecting, treating and disposing of wastewater. A community system plays an important part in protecting public health and the quality of the environment and the continuation of the use of the pipeline for the next 20 years ensures this is achieved in a manner that is efficient and cost-effective for the community that it services.

8.3 Temporary Effects

The Proposal includes replacement of the diffuser, investigations of the pipeline and installation of a marker buoy, all of which will result in temporary adverse impacts on the immediate environment. Given the nature and scale of the activities and taking into account the dynamic nature of the surrounding environment, any adverse impacts are considered to be minor and acceptable.

Replacement of the diffuser

Excavation around the outfall pipe is required to so to uncover the connection flange on the main pipeline. Material around the pipeline will be 'removed' using a submersible pump.

Temporary seabed disturbance is required to replace the outfall diffuser. Disturbance will cause some water turbidity in the proximity of the outfall. The benthic environment at outfall site and surrounding area is relatively similar and has not taxa of special scientific or conservation interest. The benthos was assessed as being typical of sandy coastal environments.

The disturbance of the seabed will be temporary and the environment is expected to return to a similar state within a relatively short period after the works are complete.

Investigation of the pipeline

Temporary seabed disturbance is required to investigate the pipeline. Disturbance will cause some water turbidity in the immediate area. The disturbance of the seabed will be temporary and the environment is expected to return to a similar state within a relatively short period after the works are complete.

8.4 Effects of the Treated Wastewater Discharge on Water Quality

This assessment of the effects of the treated wastewater discharge on harbour water quality has been undertaken by considering applicable water quality standards and guidelines. These include the conditions in section 107 of the RMA, the standards in Schedule 10 of the proposed Regional Coastal Environment Plan (pRCEP) and relevant guidelines e.g. ANZECC (2000) and MfE (2003).

In relation to wastewater discharges, section 107 places restrictions on granting of consent if, after reasonable mixing, the discharge is likely to give rise to all or any of the following effects in the receiving waters:

> *The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;*
>
> *Any conspicuous change in the colour or visual clarity;*
>
> *Any emission of objectionable odour;*
>
> *Any significant adverse effects on aquatic life.*

Schedule 10 of the pRCEP provides receiving water quality standards for coastal waters (see Appendix 6). The standards apply after reasonable mixing of any contaminant or water with the receiving water and disregarding the effect of any natural perturbations that may affect the water body.

The RMA and pRCEP both require that water quality standards be met after reasonable mixing. This implies the existence of a non-compliance zone where water quality standards may not be met. The need for a mixing zone is recognised by regulation, as no outfall structure can be designed to achieve complete instantaneous mixing of discharged process water with surrounding seawater. Its size depends on the discharge and receiving water characteristics, as well as regulatory constraints.

Reasonable mixing can be said to have occurred when the management objectives of the receiving water are not compromised by the mixing zone. Generally, this means that: the mixing zone size should be minimised; any significant adverse effects should be confined to this zone and any adverse effects outside the mixing zone should be no more than minor.

The matters to consider when deciding what constitutes a reasonable mixing zone are:

- the wastewater flow rate and concentration
- design of the outfall
- depth, velocity and rate of turbulent mixing of the receiving water
- ambient concentrations in the receiving water
- purpose and objectives for which the receiving water is being managed
- the relative size of the receiving environment
- whether the water quality within the non-compliance zone would cause an adverse effect outside the zone.

There are no prescribed mixing zone criteria in the regional plans for ocean outfalls. WBOPDC proposes to maintain the current mixing zones being compliance with contact recreation at 50m and shellfish standards at 100m.

A 1991[10] study of the outfall enabled calculation of the average initial dilution that occurs as follows

Flow (m3/day)	Average initial dilution
500	124
1000	62
2000	31
3000	21

The following assessment considers the expected degree of compliance against the pRCEP standards (which encompass and go further than the s107 standards). The italic text in the boxes are the Schedule 10 standards (some of these are relevant to more than one parameter and are therefore duplicated, for example Te Hauora o te Wai).

Colour, clarity, films, scums and floatable materials

There shall be no conspicuous change in the colour or visual clarity.

There shall be no production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials

Te Hauora o te Wai / the health and mauri of water - Coastal waters support a healthy ecosystem appropriate to that locality (open coastal water, lagoon, estuary, coastal wetland, saltmarsh, intertidal areas, rocky reef system etc. Coastal water quality enables ecological processes to be maintained, supports an appropriate range and diversity of indigenous flora and fauna, and there is resilience to change.

In some situations wastewater plumes can be visible if they contain higher levels of suspended solids than the surrounding waters. They can also be seen as a layer of freshwater which appears different to saltwater.

The wastewater is treated using screening and grit removal, aerated ponds and wetlands and finally UV disinfection. The discharge results show good compliance with the current resource consent conditions..

A visual assessment of conspicuous (ie obvious) changes during the 2015 survey documented a rank of 0 across all sites. This means there was no visual effect (no visual effect is given a 0 and something grossly visible a 3). The discharge is therefore considered to be in compliance with that standard. As part of the ongoing monitoring visual surveys will be undertaken and anything conspicuous will be investigated and reported.

Temperature

The natural temperature of the water shall not be changed by more than 3 degrees C

Excessive changes in water temperature can have an adverse effect on biota and limits are therefore placed on the extent to which a discharge can affect the water temperature.

The 2015 survey showed that at the control site (known as E4000) the temperature was 17.7 compared to all other sites ranging from 16.7 to 18 degrees C. While the sea temperature varies seasonal the discharge will not result in a change of more than 3 degrees C given the small volume of discharge relative to the receiving environment and accordingly it will comply with this standard.

[10] Beca Steven (1991) Water Right Study of Bay of Plenty Ocean Foreshore Waters

As part of the proposed receiving environment monitoring it will be standard practice to measure the temperature when samples are taken.

Oxygen

The concentration of dissolved oxygen shall exceed 80% of saturation concentration

The discharge of organic matter into water bodies that are not well flushed can cause oxygen depletion in the water column and sediments. An adequate supply of oxygen is required for the functioning of biota and low levels and cause growths. Dissolved oxygen (DO) levels can vary widely on a diurnal basis and depend on temperature, salinity and nutrient levels.

Biological oxygen demand (BOD) is a measure of the oxygen required by micro-organisms to degrade organic matter, usually over five days (BOD5). When BOD levels are high, dissolved oxygen (DO) levels decrease.

No data on DO levels in the wastewater or receiving environment is available, however, the BOD of the treated effluent is measured and has consistently complied with the current consent limit (mean of 12 g/m^3 since 2010) meaning it is unlikely that there would be any measureable reduction in the dissolved oxygen concentration of the receiving waters.

Emission of objectionable odour

Any emission of objectionable odour

No incidents of odour from the treatment plant discharge have been received or recorded by WBOPDC.

The subsurface discharge of wastewater would not be expected to result in odour that is discernible at all, particularly given the level of treatment it undergoes. The discharge is unlikely to cause an emission of objectionable odour.

The matter of *any significant adverse effects on aquatic life* is considered in the next section.

8.5 Effects of the Treated Wastewater Discharge on Marine Ecosystems

The discharge of contaminants to water can have adverse effects on marine ecosystems due to increases in toxicity, nutrient enrichment and the discharge of suspended solids. It can also give rise to effects on cultural values, which is considered in more detail in the next section.

8.5.1 Toxicity

Toxicity can cause adverse effects on a living organism either from the accumulation of contaminants in organisms from the water or sediment or directly or through consumption of food containing the toxicants (bioaccumulation).

The wastewater treated by the Katikati WWTS is from predominantly domestic and a few commercial and industrial sources. Given this, the primary toxicants that should be considered are change in pH and heavy metals.

Change in pH

Chemicals in industrial wastewater and cleaning products can alter the pH. The ANZECC (2000) guideline does not include a New Zealand value but provide guidelines for Southeast Australian marine waters which state the pH should not vary outside the range 8.0 to 8.4. Whereas ANZECC (1992) indicates that the pH should not be permitted to vary by more than 0.2 units from the normal values. Changes in pH should be avoided but should not be outside the range from 6.5 to 9.0.

The pH of seawater is usually in the range 7.7 to 8.4 in marine surface water and typically between 8.0 to 8.3 in New Zealand coastal waters.

The nature of the wastewater means that little variation in pH is expected. The median pH of the influent is 7.4 (2012-2015) and the 90th percentile 7.7. The 2015 ocean outfall survey recorded values ranging from 7.6 to 8.1. The pH of the treated wastewater is not expected to cause significant adverse effects on biota.

Heavy Metals

Aquatic organisms shall not be rendered unsuitable for human consumption by the presence of contaminants.

Kaimoana is safe to harvest and eat.

Trace metals when in sufficient concentrations can have both acute and chronic effects on marine biota. Organisms such as shellfish (as they are not mobile like fish) can be affected by continuous exposure to these metals such that they can be passed through the food chain. Shellfish feed by filtering particles out of the water and can accumulate contaminants which can have a direct impact on our health if we eat shellfish that have high heavy metal concentrations.

Quarterly sampling of heavy metals in the effluent occurs. The measured heavy metals in the wastewater are consistently low. The 2015 survey sampled heavy metals in the sediment and shellfish. All trace elements tested were similar in levels to that as reported in Kingett Mitchell (2006) and were also below the interim sediment quality guidelines (ISQG) (ANZECC, 2006). The ISQG-Low value is the level below which adverse effects are very unlikely (low likelihood of toxic effects). As such, it is not a level that is cause for concern. The ISQG-High value is a level at which adverse effects are expected in half of the exposed organisms. Concentrations above the ISQG-High value are interpreted as being reasonably likely to cause significant adverse effects on aquatic organisms (high likelihood of toxic effects).

The levels of trace elements in the sediments show little evidence of accumulation as a result of any discharge from the outfall. Concentrations of arsenic, chromium, nickel and lead were lower at the survey control site than a number of the other sites however, differences are likely to be as a result of natural variation in the geology of the area rather than accumulation of trace metals due to the WWTS. There is a limited number of sediment surveys – the proposed conditions include additional sediment sampling to ensure that any adverse impacts that can be attributed to the discharge are able to be identified and addressed.

Concentrations of heavy metals in the sampled shellfish were well below the Food Standards Australia and New Zealand (FSANZ) criteria. There are no New Zealand guidelines for acceptable levels of chromium, copper, nickel or zinc in shellfish tissue. The risk to human health from copper and zinc is regarded as too low for a criterion to be applied but FSANZ provides a generally expected level (GEL) for shellfish as a benchmark. The results are below these levels so they can be considered safe to eat.

The CIA prepared by the Hapū of Matakana and Rangiwaea Islands notes: "*To our knowledge there has been no extensive tests or monitoring carried out on the impact of the outfall discharge to firstly, test whether or not there is any impact on the Tuatua populations particularly during the spawning phase and secondly whether or not the number of tests carried out in any given year is sufficient evidence to indicate Tuatua are safe to eat all year round for tangata whenua particularly within 2-3km either side of the discharge point.*"

The limited sampling results show that the discharge is not having an adverse effect on tuatua. WBOPDC proposes to continue to monitor shellfish and as a result of the above feedback has undertaken to include tuatua in its ongoing monitoring programme.

8.5.2 Nutrients

Water bodies can become eutrophic (when systems have an overabundance of nutrients such that an unacceptable ecological change occurs) if the addition of nutrients exceeds the ability of the ecosystem to assimilate them. This can be seen as excessive growth of plants and/or algal blooms. There are a number of factors that determine whether a waterbody becomes eutrophic – temperature, turbidity and the physical

conditions. This means that not all waterbodies with elevated nutrient concentrations will become eutrophic. In marine waters the limiting nutrient is typically nitrogen as opposed to phosphorus.

There are no New Zealand-specific ANZECC (2000) guideline trigger values for dissolved inorganic nitrogen in New Zealand marine and estuarine waters. Hence the nutrient results from the ocean outfall survey have not been compared to ANZECC (2000) trigger values.

Total nitrogen (TN) and total phosphorus (TP) were analysed in the water samples collected in the ocean outfall survey. TN ranged from <0.3 (for sites at and beyond 50m from the outfall) to 0.2 - 0.3 g/m^3 (outfall and 10m away). While the outfall site is significantly different from the surrounding sites, it is similar to levels of TN in other coastal waters in the region[11]

TP at the outfall site was 0.023 g/m^3 and ranged from 0.008 to 0.048 g/m^3 for all other sites (the control sites were 0.012 and 0.13 3 $g/m^{3)}$.

Nutrients (total organic carbon, total nitrogen and total phosphorus) were also analysed in the sediment samples collected in the ocean outfall survey. TN in all sediment samples were low at <0.05g/100g including the control sites. The 2006 survey also looked at nutrients with identical results reported.

TP concentrations ranged from 150 to 171 g/100g dry weight across the sites with the outfall site recording the lowest and the control site 140g/100g dry weight. While there are some differences between the sampled sites and the control sites, the lower level of phosphorus is thought to be geochemical in origin rather than originating from the discharge.

The water quality results show that at the outfall levels are slightly higher but beyond an initial zone the levels are similar to the control sites. The proposed conditions include monitoring nitrogen levels the treated effluent and receiving environment (water and sediments).

8.5.3 Benthic Organisms

There shall be no significant adverse effects on aquatic life. Refer to: Australian and New Zealand Guidelines for Fresh and Marine Water Quality Australian and New Zealand Environment and Conservation Council, 2000.

Te Hauora o te Wai / the health and mauri of water - Coastal waters support a healthy ecosystem appropriate to that locality (open coastal water, lagoon, estuary, coastal wetland, saltmarsh, intertidal areas, rocky reef system etc.

Coastal water quality enables ecological processes to be maintained, supports an appropriate range and diversity of indigenous flora and fauna, and there is resilience to change.

The 2015 ocean outfall survey indicates that 44 benthic taxa were identified in the area. There were no significant differences between sites and mean total species richness and mean total abundance. The composition of species across all sites was largely similar in that no significant differences were observed. Additionally, there were no differences between the control and other sites.

[11] Park, S.G. 2011: Bay of Plenty coastal productivity monitoring - 2010. Environmental Publication 2011/10.

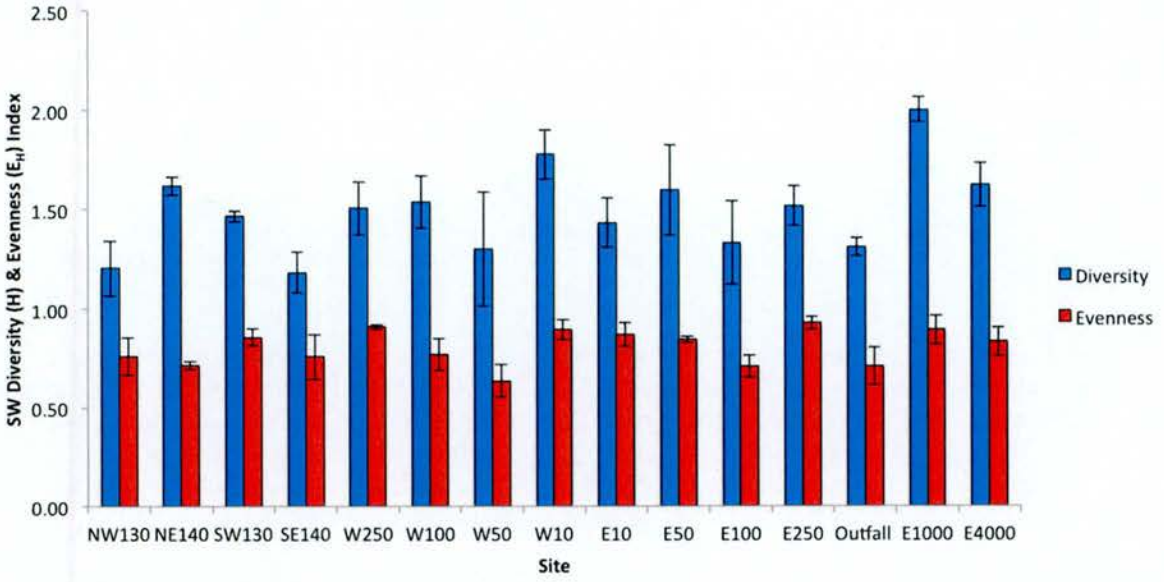


Figure 8-1: Diversity and evenness index (Shannon Wiener index) for all sites (n=3 for all sites except E4000 (n=2)). Values are means ± 1 SE

The 2006 study showed that there were no significant effects on benthic fauna attributable to the discharge and that the detected changes were generally along a west to east gradient rather than in the vicinity of the outfall discharge.

The low abundance and diversity of species identified is considered typical of a sandy coastal environment. The surveys have shown that while there were some differences between sample sites, the discharge of treated wastewater is not having adverse effects on benthic infauna communities.

8.5.4 Fish and Marine Mammals

Te Hauora o te Wai / the health and mauri of water - Coastal waters support a healthy ecosystem appropriate to that locality (open coastal water, lagoon, estuary, coastal wetland, saltmarsh, intertidal areas, rocky reef system etc.

Coastal water quality enables ecological processes to be maintained, supports an appropriate range and diversity of indigenous flora and fauna, and there is resilience to change.

In recent times the potential effect of endocrine disrupting compounds (EDCs) on marine mammals is of increasing interest and is an area of emerging science. EDCs can mimic natural hormones which can adversely affected natural functions. Examples of EDCs are insecticides such as DDT and oral contraceptive pills. The persistent nature of these chemicals makes marine mammals particularly vulnerable to bioaccumulation in their blubber layers.

A report by Cawthron[12] notes that there is much uncertainty and significant gaps in data to enable the accurate assessment of the risk and biological effects of emerging organic contaminants.

Tthe Katikati wastewater is primarily of domestic origin with low concentrations of heavy metals meaning the risk of exposure to local fish and mammals to toxic contaminants (directly or indirectly) is likely to be low.

[12] Cawthron Institute (2015) Risk Assessment of Emerging Contaminants in Treated Wastewater in the Auckland Region, Report No. 2667

8.6 Effects of the Treated Wastewater Discharge on Public Health

The ongoing provision of a safe, reticulated wastewater system is necessary to protect the public health of the Katikati community. A centralised system is generally preferred to a system of individual septic tanks as it avoids individual contact with waste.

There are a wide variety of potentially pathogenic organisms in human wastewater. The actual presence of these organisms in raw wastewater is dependent on the prevalence and incidence of disease in the local population. The common practice is to test for the presence of faecal contamination, by measuring the concentrations of "indicator organisms" that are always present in wastewater at high concentrations. WBOPDC routinely monitors the concentrations of both faecal coliforms and enterococci in the existing treated wastewater.

Pathogens discharged into a marine environment are transmitted to humans most frequently by consumption of contaminated seafood. Other potential infection routes are accidental inhalation or ingestion of contaminated sea water or direct exposure through ears, nose, eyes and broken skin.

There is no wastewater aerosol migration from the WWTP. The effects of the air discharge from the WWTP are considered further in section 8.8.

Recreational water contact

The water shall not be rendered unsuitable for bathing by the presence of contaminants. Microbiological: The concentration of enterococci must not exceed 280 cfu/100ml. See Microbiological Water Quality Guidelines for methodology (MfE & MoH, 2003).

Kei te ora te mauri (the mauri of the place is intact). Coastal resources are able to be used for customary use and customary practices are able to be exercised to the extent desired. Tikanga and preferred methods are able to be practised.

Bacterial water quality is monitored quarterly 200m up current and 50, 100 and 200m down current. The 2015 ocean outfall survey included 15 sites. Over the last 8 years the median faecal coliform count at 50m down current has been <4 MPN/100mL. Enterococci has also been <4 (median) with the exception of one sample 50m down current (February 2011) that exceed 280 cfu/100mL however the up current site also exceeded 280.

The CIAs consider Kei te ora te mauri (the mauri of the place is intact).

Consumption of raw shellfish

Aquatic organisms shall not be rendered unsuitable for human consumption by the presence of contaminants.

Microbiological The median faecal coliform content of samples taken over a shellfish-gathering season shall not exceed a Most Probable Number (MPN) of 14/100 mL, and not more than 10% of samples should exceed an MPN of 43/100 mL (using a five-tube decimal dilution test).

Kaimoana is safe to harvest and eat.

Shellfish are not required to be monitored as part of the current resource consent. To date a single sampling round (12 samples) of tuatua has been tested as part of the 2015 ocean outfall survey. The sampling showed that all results were below the detection level of 18 MPN/100mL for faecal coliforms and <10 cfu/100mL for Enterococci suggesting that shellfish are suitable for human consumption However further sampling would need to occur in order to be confident that this is and remains the case. For this reason it is proposed to continue testing shellfish and test on a seasonal basis, with the next round commencing in August 2016. The continued monitoring of the treated wastewater before it enters the pipeline will provide a second layer of comfort that any adverse impacts could be quickly identified and addressed.

8.7 Effects on Cultural Values

The relationship between tangata whenua, Tauranga Harbour and the coast is cultural and historically very significant – it has sustained the people for centuries. It is acknowledged that the pipeline and discharge have historically had significant adverse impacts on cultural values in the area.

WBOPDC has engaged with tangata whenua as part of the consent renewal project and commissioned CIAs to better understand the cultural values and report on the cultural impacts of the Proposal. The CIAs cover the interests of:

- The five Hapū of Matakana and Rangiwaea Islands; Ngati Tauaiti, Ngai Tuwhiwhia and Ngai Tamawhariua based at Matakana Island, and Te Whanau a Tauwhao and Te Ngare who are located at Rangiwaea Island, Tauranga
- The northern Ngai Te Rangi hapu of Rereatukahia, Tuapiro and Otawhiwhi

Copies of the CIAs are included in Volume B.

Hapū of Matakana and Rangiwaea Islands:

For the tangata whenua of Matakana and Rangiwaea Islands the effects of the discharge on the receiving environment is not up to a standard that would satisfy their ongoing concerns. For tangata whenua, solutions need to be long term focussed, of high quality standard and with the ability to change methodologies as technology advances. The hapū wish to be involved in all discussions, monitoring and decisions for the remaining lifetime of the pipeline discharge.

As a result of the CIA findings and associated outcomes sought, the following recommendations have been made to avoid, remedy or mitigate effects on cultural concerns:

CIA recommendation	Comment
All monitoring involve tangata whenua in the data collection	WBOPDC have involved tangata whenua in recent monitoring and are committed to this continuing. WBOPDC is proposing Condition 9.9 which requires the Consent Holder to invite at least one representative from Matakana and Rangiwaea Islands Hapū to be involved in the monitoring and pay the reasonable costs of their involvement.
That the council sought an alternative discharge point before 2035	WBOPDC have committed to investigating alternatives and lodging any applications for approvals required prior to the expiry of these consents (expected to be around 2037 depending when the consents commence.) The investigation process and requirement to apply for any authorisations are set out in the proposed conditions.
Acknowledgement by council to the communication framework within the Matakana and Rangiwaea Islands – Hapu Management Plan	WBOPDC acknowledge that the framework will form the basis for ongoing collaboration
To allow for more compliance testing and monitoring of Tuatua beds for the duration of the consent sought	The proposed conditions include ongoing monitoring of tuatua beds – condition 9.5
Resource Consents with regard to the continued discharge need to be more robust to align with international water quality standards	The proposed conditions and the assessment of effects adopt standards set through the pRCEP and include a mix of international standards as well as New Zealand standards. These are considered to be appropriate.

That the council deliver a summary of the annual and quarterly monitoring in layman's terms for the general public and community to understand.	The proposed conditions include supplying results on a quarterly basis in a format agreed with tangata whenua and a requirement for a meeting with tangata whenau prior to the annual report being submitted to explain the contents – Conditions 10.5 and 10.6

There is clearly, as is appropriate, a wish to be involved in all discussions, monitoring and decisions for the remaining lifetime of the pipeline discharge. WBOPDC have accepted in principle the recommendations sought in the CIA from the Hapū of Matakana and Rangiwaea Islands - as illustrated in the table above. Ongoing engagement and collaboration will ensure that the recommendations sought are implemented.

Northern Ngai Te Rangi Hapū

The hapu have identified the adverse effects on them of sewage disposal into the ocean with the impacts "charted as Well Beings vs Effects" (from page 12 of the CIA):

	Effects	Temporary	Permanent	Past	Present	Future	Cumulative	Acute	Chronic
Well Beings									
Environmental	The productivity and life-sustaining quantity and quality of:								
	• Mahinga mataitai/hi ika	MM	S	S	S	S	S	S	S
	• Nga taonga koiora, (life)	MM	S	S	S	S	S	S	S
	• Nga taonga tuku iho, (heritage)	MM	S	S	S	S	S	S	S
	• Te whenua	M	M	M	M	M	M	M	M
	• Te moana	MM	S	S	S	S	S	S	S
	• Te hau	M	M	M	M	M	M	M	M
	• Habitats and ecosystems	MM	S	S	S	S	S	S	S
	• Other natural values	M	S	S	S	S	S	S	S
Cultural	The potential adverse or beneficial effect on the kaitiakitanga role of Maori, including the protection and enhancement of mauri, mana and tapu of:								
	• Te tangata whenua,	S	S	S	S	S	S	S	S
	• Nga taonga koiora,	S	S	S	S	S	S	S	S
	• Nga taonga tuku iho,	S	S	S	S	S	S	S	S
	• Te whenua	M	M	M	M	M	M	M	M
	• Te moana	S	S	S	S	S	S	S	S
	• Te hau	M	M	M	M	M	M	M	M
	• Tikanga	S	S	S	S	S	S	S	S
	• Matauranga Maori	MM	MM	MM	MM	MM	MM	MM	MM
Social	The protection and enhancement of:								
	• Taha wairua,	S	S	S	S	S	S	S	S
	• Taha whanaunga,	S	S	S	S	S	S	S	S
	• Taha hinengaro,	S	S	S	S	S	S	S	S
	• Taha tinana	S	S	S	S	S	S	S	S
Economic	• The ongoing capacity and capability of Maori to develop economically,	MM	MM	MM	MM	MM	MM	MM	MM
	• The ongoing participation of Maori in the generation of economic benefit, and the burden of economic cost	MM	MM	MM	MM	MM	MM	MM	MM
Key	Effects are scored as minor (M), moderate (MM), or significant (S) Note: all effects are adverse								

CIA recommendation	Comment
Limit the resource consent to five years, and if required, to explain to the Regional Council, kanohi ki te kanohi (face to face) why, prior to granting any resource consent.	WBOPDC are seeking a term greater than 5 years for the reasons set out in section 5.6.
Engage Maori in partnership, to decide on an appropriate alternative to dumping sewage in the ocean - Specifically to include representatives of the hapu of the Tangata Whenua of the Northern Reaches of the Tauranga Moana Harbour (centred on Te Rereatukahia, Tuapiro and Otawhiwhi)	WBOPDC has proposed an alternatives investigation process in Condition 12, which requires it to invite at least one representative of the northern Ngai Te Rangi hapū (defined as Ngai Tamawhariua (Te Rereatukahia marae), Ngati te Wai (Tuapiro marae) and Te Whanau o Tauwhao (Otawhiwhi marae)) to be part of Te Ohu Wairoa, the panel tasked with completing the Alternatives Investigation. Te Ohu Wairoa will make a recommendation to WBOPDC, but is not a decision-making body. As the local authority, WBOPDC must make the final decision in relation to infrastructure that it must fund on behalf of the ratepayers.
Engage with Maori in partnership for ongoing monitoring of performance of any sewage disposal - Specifically to include representatives of the Tangata Whenua of the Northern Reaches of the Tauranga Moana Harbour (centred on Te Rereatukahia, Tuapiro and Otawhiwhi)	WBOPDC have proposed conditions requiring monitoring of the discharge at the WWTP in Katikati and a requirement to invite a member of the Northern Ngati Te Rangi Hapū to be involved in that monitoring. The conditions also allow for hapū involvement.

There is a desire for the ocean outfall discharge to cease in the short term (5 years) and for involvement in alternative investigations and monitoring. WBOPDC acknowledge the recommendations sought in the CIA from the hapū - as illustrated in the table above.

8.8 Effects on Recreation and Amenity Values

The effects of the Proposal in terms of water quality and shellfish gathering, which are relevant to recreation and amenity, are discussed earlier.

8.8.1 Air Discharge

Odour may be created from the processes within the aerated lagoons if not properly managed, sludge from the milliscreening and sludge drying.

The screening takes place inside a purpose built building. This reduces the likelihood of odour discharges being discharged from the incoming influent and being carried by wind movement.

The lagoons can become a source of odour when they turn anaerobic (low levels of dissolved oxygen). This can result from either shock loads or upsets to the biological processes in the lagoons. When lagoons become anaerobic, reduced sulphur compounds like hydrogen sulphide (the "rotten egg' smell) are produced. These odours can be offensive. In lagoons that are correctly operating, the gases are treated in the aerobic layer and converted to odourless sulphur compounds. Under normal operating conditions in a well-run plant odour is not a problem.

The physical process of aeration in the lagoons can generate aerosols. The aerators are generally positioned in central locations, and operate on the surface of the lagoons such that aerosols are unlikely to drift beyond the boundary. There is no spray irrigation on the site.

Buffer areas are often provided around odour sources such as wastewater treatment plants. These are intended to prevent sensitive activities locating close to an odour source in the area where odours are most likely to cause a problem. In the area the prevailing wind is south westerly therefore any locations to the north east have the potential for objectionable or offensive odours. The next most prevalent wind direction is from the west. The Western Bay of Plenty District Plan includes as part of the designation a buffer area as illustrated in the District Plan map in Appendix 1.

No incidents of odour from the treatment plant operation have been received or recorded by WBOPDC.

The Clean Air Society of Australia and New Zealand[13] recommend a buffer distance of 200-300m between sensitive land uses and WWTPs. The following separation distances exist:

- South – no residential development or dwellings within 300m of the site boundary
- West – nearest residential development some 400m from the site boundary
- North – nearest is the packhouse some 300m from the boundary
- East – 2 horticultural block dwellings some 240 and 360m respectively from the ponds

Due to the design and operating regime the treatment plant is not expected to be a source of objectionable odour. The operational practices included in the OMEP will ensure that this remains the case and will also include contingency measures. The proposed conditions include a requirement that the discharge of odour is not offensive or objectionable beyond the boundary. A complaints register and investigation process is also proposed.

8.9 Summary Comments

The WWTS provides an important service to the Katikati community by collecting, treating and disposing of wastewater. A community system plays an important part in protecting public health and the quality of the environment. A community scheme is preferable to individual onsite systems which would be less effective and less appropriate from a cost, environmental, and public health perspective.

Ecological and water quality surveys have been undertaken and show:

- the sediments show little evidence of any accumulation of contaminants as a result of the discharge
- the bacteria water quality outside of the mixing zone meets contact recreational and shellfish gathering guidelines.

Ongoing monitoring and reporting is proposed in the conditions of consent.

The only effects that are demonstrably adverse are the cultural effects of the discharge of wastewater to the coastal environment and the presence of the pipeline. The Matakana and Rangiwea hapū and Northern Ngai Te Rangi hapū have provided recommendations for actions that would assist in mitigating the ongoing effects of the Proposal on them. WBOPDC has taken these on board and has proposed consent conditions that go some way to achieving the recommendations. WBOPDC will also continue to work together with the hapū on wider matters outside this consent process including through Te Ohu Waiora.

[13] Clean Air Society of Australia and New Zealand, 2008, Odour Separation Distances Guidelines

Effects associated with the diffuser replacement and pipeline inspections/investigations will be short term can be managed through appropriate mitigation measures at the time of the works and have been incorporated into the proposed conditions.

9 Proposing Environmental Management and Monitoring

A number of consents are required and mitigation measures have been proposed within the application. To assist how these will be given effect to, this section discussed the approach to the proposed conditions. It is acknowledged that submissions are likely to be received on the conditions and the consent authority will have their own view. Equally it is not unusual for the nature and wording of conditions to evolve, if needed, as one means to address matters raised during the formal notification and hearing process. Therefore the conditions are subject to further refinement.

9.1 Current requirements

The existing resource consent requires:

Attribute	What
Volumes	Outfall pump station and Matakana Island
Effluent quality limits	$cBOD_5$, suspended solids, total nitrogen, faecal coliforms, enterococci
Receiving environment limits	Shellfish gathering water quality Contact recreation
Effluent monitoring	$cBOD_5$, suspended solids, total nitrogen, nitrate nitrogen, nitrite nitrogen, Kjeldahl nitrogen, faecal coliform, enterococci, volume, heavy metals
Receiving environment monitoring	Quarterly Enterococci and faecal coliforms

9.2 Proposed conditions

The applicant proposes the following:

Attribute	What	Comment
Management	Operation, Maintenance and Environmental Plan	The current OMP needs updating and to include all the monitoring and reporting requirements
Reporting	Monthly supply of data Annual report	Specific reporting to Tangata Whenua: Quarterly - a summary of all monitoring results shall be provided to Tangata Whenua in a form that can be understood by a lay person Prior to submitting the annual report to the Regional Council, the consent holder shall arrange a meeting with Tangata Whenua to discuss the annual report
Volumes	Outfall pump station and Matakana Island	These continue to be the most appropriate locations

Effluent quality limits	$cBOD_5$, suspended solids, total nitrogen, , faecal coliforms, enterococci	Limits specified as medians/means and maximums for some parameters
Receiving environment limits	Shellfish gathering water quality Contact recreation standard	
Effluent monitoring	$cBOD_5$, suspended solids, total nitrogen, ammoniacal nitrogen, faecal coliform, enterococci, volume, heavy metals	
Receiving environment monitoring	Water quality - Enterococci and faecal coliforms Sediment Benthic organisms shellfish	Bacteria regular monitoring A new, more extensive monitoring programme is proposed to obtain seasonal information and then the survey repeated a number of times during the consent
Alternatives	Implementation plan to investigate alternative disposal options	Timeframes are included.

10 Statutory Assessment

This section outlines the statutory and planning provisions that are relevant to the proposal. The assessment against the relevant documents generally follows the hierarchy of those documents as shown below.

10.1 Section 104 RMA

Section 104 of the RMA applies to the consideration of resource consent applications.

> *104 Consideration of applications*
> *(1) When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to -*
> *(a) any actual or potential effects on the environment of allowing the activity; and*
> *(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.*
> *(2) When forming an opinion for the purposes of subsection (1)(a), a consent authority may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect.*
> *(2A) ...*

An assessment of the actual or potential effects on the environment has been undertaken in Section 8. The extent to which the proposed resource consents are able to satisfy Section 104(1)(b) and(c) and Part 2 of the RMA is considered below.

10.2 National Environmental Standards

There are five National Environmental Standards (NES) in force as regulations. There are no NES considered relevant to the Proposal.

10.3 National Policy Statements

The New Zealand Coastal Policy Statement (NZCPS) is a framework of objectives and policies set out to achieve the purpose of the RMA in relation to New Zealand's coastal environment.

The Proposal involves activities in the coastal marine area. An assessment of each the objectives and policies of the NZCPS has been undertaken and is included in Appendix 6. Section 104 requires that particular regard be had to these when considering a resource consent application.

The Supreme Court considered several of the NZCPS policies in the context of a plan change for aquaculture in the *King Salmon* decision.[14] The Supreme Court decision clarifies that some of the policies require the avoidance of activities that could adversely impact the attributes of areas with significant natural values in the coastal environment. The effect of the decision is to give primacy to the preservation of significant natural

[14] *Environmental Defence Society Inc. v The New Zealand King Salmon Company Limited* [2014] NZSC 38.

values. The Court also said the NZCPS does not necessarily require strict avoidance of minor or transient effects.

The Court held that the directive nature of two policies in the NZCPS (being the natural character and ONFL policies 13 and 15) , which use the word "avoid", meant that there was no need to refer back to Part 2 of the RMA when making a decision. The private plan change had to "give effect to" (which was held to mean "implement") the NZCPS and there was no need to refer back to Part 2 and apply an overall broad judgement as to whether the application would be granted.

However pursuant to Section 104 of the RMA decisions for resource consent applications are to be made "subject to Part 2" and decision makers are only required to "have regard" to the NZCPS and other national and regional planning documents. This difference in wording means that an overall broad judgement approach will still apply for resource consents. This has been confirmed in the decision of the Environment Court in *KPF Investments Limited v Marlborough District Council* [2014] NZEnvC 152.

The NZCPS contains a number of objectives and policies relevant to the Proposal. The key themes are maintenance of coastal water quality and enhancement where this is degraded, avoiding significant adverse impacts on ecology and habitat, taking into account the principles of the Treaty and ensuring a role for tangata whenua as kaitaiki, and recognising appropriate provision of infrastructure as being important to the wellbeing of communities.

Water quality and ecology

Objective 1 (c) is particularly relevant: '*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.*'

The coastal water quality off Matakana Island is considered to be good. The Proposal will maintain the water quality. The new diffuser will result in more effective dispersal which will also constitute an improvement to the current discharge. There are no demonstrable adverse effects on ecology and habitat as a result of the discharge.

Policy 23 deals with the discharge of contaminants and in particular wastewater into the coastal environment. The first part of the policy is similar to s105(1) of the RMA. The second part relates solely to the discharge of human sewage.

It says that discharges of treated sewerage should not be allowed unless:

- there has been adequate consideration of alternative methods, sites and routes for undertaking the discharge; and
- informed by an understanding of tangata whenua values and the effects on them.

The policy does not mean that resource consent applications that involve discharges of human sewage cannot be approved. The policy allows for such activities to be allowed provided they have addressed the two matters outlined above. The overall balancing requirement remains, meaning this policy cannot be treated as a bottom line.

WBOPDC has undertaken assessments of alternatives as required under its existing consent conditions. It has also proposed a detailed investigation process to be undertaken during the life of the Proposal. Alternative investigations to date have determined that the outfall is the best practicable option at this stage.

The tangata whenua values are presented in the two CIA from the hapū of Matakana and Rangiwaea Islands and the Northern Ngai Te Rangi hapū. The recommendations made have largely been adopted in the proposed conditions of consent with the exception of the request for a five year term for the reasons stated.

WBOPDC is applying for the continuation of an existing activity using existing significant infrastructure. It is not applying to build a new pipeline and discharge and Policy 23 also needs to be read in that context.

The quality of the coastal water has not 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 (Policy 21). There has been some reticence on the part of tangata whenua around gathering shellfish as a result of their concerns about the discharge. Matakana and Rangiwaea Islands hapū have raised concerns regarding the extent of testing done on tuatua to determine whether they are safe to eat all year round within 2-3 km of the discharge point. WBOPDC has committed to a monitoring programme that includes monitoring of tuatua and involves the hapū in that monitoring.

Tangata Whenua

Objective 3 of the NZCPS states *'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:*

(a) Recognising the ongoing and enduring relationship of tangata whenua over their lands, rohe and resources;

(b) Promoting meaningful relationships and interactions between tangata whenua and persons exercising functions and powers under the Act;

(c) Incorporating mātauranga Māori into sustainable management practise; and

(d) Recognising and protecting characteristics of the coastal environment that are of special value to tangata whenua.'

The objective is further elaborated under Policy 2. It is acknowledged that there are adverse cultural effects associated with the discharge of wastewater into fresh or coastal water and that tangata whenua have continued to object to the pipeline "largely based on insufficient scientific testing, standards and methodologies that balance the worldly view of Hapū". To partly acknowledge this a programme of three years of quarterly monitoring has been developed jointly by the Hapū and WBOPDC and this monitoring programme is enshrined in the proposed consent conditions.

The proposed conditions also require a collaborative approach where there is an active role for Matakana hapū in the monitoring itself.

For the tangata whenua of Matakana and Rangiwaea Islands the effects of the discharge on the receiving environment is not up to a standard that would satisfy their ongoing concerns. For tangata whenua, solutions need to be long term. The Hapū wish to be involved in all discussions, monitoring and decisions for the remaining lifetime of the pipeline discharge and this has been proposed in the conditions.

The Northern Ngai Te Rangi hapū they want to see the consent only issued for five years and to work with WBOPDC to find an appropriate alternative. The hapū wish to be involved in the ongoing monitoring – this has been included in the proposed conditions, along with a requirement for the hapū to be involved in the alternatives investigation process.

Policy 2 expands on Objective 3. The policy largely relates to the functions of local authorities, including for example in planning and policy development. However it also refers to the incorporation of Matauranga Maori in consideration of applications for resource consents. WBOPDC has commissioned CIAs and also proposes to include matauranga in the assessment of effects of the discharge in the proposed conditions of consent. Tangata Whenua are also involved in the alternatives investigation process proposed in the conditions.

The treatment process at the WWTP also includes a wetland component aimed at addressing the concerns of tangata whenua, by ensuring that the wastewater passes through wetland prior to being discharged to coastal water.

Infrastructure

Objective 6 is to enable people and communities to provide for their wellbeing, recognising that the protection of the coastal environment does not preclude use in appropriate places and forms, and within appropriate limits, and that some uses which depend on natural and physical resources in the coastal environment are important to the social, economic and cultural wellbeing of people and communities. The Proposal includes appropriate limits and uses existing infrastructure. The continued use of the outfall and ocean for assimilation of the discharge provides an important service for the community as a fundamental component of the Katikati WWTS.

Policy 6 recognises that provision of infrastructure is an activity that is important to the social and economic wellbeing of people and communities and says that the contribution made by use of the coastal marine area should be recognised.

The Proposal recognises the importance of the existing infrastructure. It also recognises the cultural effects and provides mechanisms for addressing these in the proposed conditions. The Proposal is consistent with the NZCPS.

10.4 Regional Policy Statement

The relevant objectives and policies of the Operative RPS are listed in Appendix 6, along with an assessment as to the consistency of the Proposal with these.

The RPS has been operative since 1 October 2013 and includes Plan Change 1 (Coastal Policy) to give effect to the NZCPS, meaning there is a great deal of alignment between the NZCPS and RPS.

The RPS is a broad policy document which considers all the regionally significant resource management issues and provides objectives, policies and methods to address those issues. It sets out how natural and physical resources are to be managed in an integrated way to promote sustainable management. Again, the relevant objectives and policies concern:

- Coastal water quality
- Iwi resource management
- Energy and infrastructure: including regionally significant infrastructure

Coastal water quality

Policy CE 9B promotes water quality that sustains healthy aquatic ecosystems. Policy CE 10B(h) requires the adoption of the best practicable option for treatment of discharges, acknowledging that a high standard of water quality is essential to maintain the health of ecosystems. The Proposal does not affect the health of these ecosystems, and a high level of treatment is required under the conditions.

Iwi resource management

A key part of the RPS is the Iwi Resource Management policies, which are comprehensive. Tangata whenua are increasingly seeking greater regard to kaitiakitanga by persons exercising functions and powers under the RMA and greater involvement in the management of natural and physical resources to fulfil their role as kaitiaki, and proactively address potential adverse effects on Māori culture and traditions and this is recognised in the RPS.

The key themes within the Iwi Resource Management framework in the RPS are recognising kaitiakitanga and the involvement of iwi in resource management, and addressing effects on cultural values and safeguarding the mauri of resources.

One of the key objectives (Objective 13) is the recognition of kaitiakitanga and that the principles of Te Tiriti o Waitangi are taken into account in the practice of resource management. Policy IR 4B and Method 41 promote consultation with tangata whenua. As noted above, WBOPDC has consulted with tangata whenua and proposed conditions that recognise and provide for kaitiakitanga, for example, through the proposed monitoring that includes cultural monitoring.

Objective 15 is for resource management decisions to have regard to iwi and hapū management plans, and Policy IW 6B requires these to be taken into account. There are relevant management plans and these have been considered (see below). Further, WBOPDC has commissioned specific cultural impact assessments in relation to the Proposal.

Policy IW 6B is to encourage tangata whenua to identify measures to avoid, remedy or mitigate adverse cultural effects. The recommendations made by tangata whenua in the CIAs have largely been adopted in the proposed consent conditions. The key recommendation that has not been adopted is the recommendation by the Northern Ngai Te Rangi hapū to reduce the term for the consent to 5 years. Reasons have been provided for why that term is not appropriate, and for why the term sought is.

Objective 17 seeks that the mauri of resources be safeguarded, and enhanced over time where it is degraded. Matakana and Rangiwaea Islands hapū have concluded that the mauri of the ocean waters surrounding the outfall has been "seriously compromised" since the pipeline was built and that this has largely been based *"on insufficient scientific testing, standards and methodologies that balance the worldly view of Hapu who utilize these kai resources as part of their extended pataka kai (Food cupboard)."* They have accepted the discharge can continue in accordance with the Proposal, provided WBOPDC seeks an alternative before 2035. They seek a comprehensive monitoring programme. They wish to be involved in data collection and in decision making. They have proposed an assessment matrix for use when identifying impacts of the discharge. These matters have all been addressed or provided for in the proposed conditions of consent.

Northern Ngai Te Rangi hapū do not want to see the ocean outfall to continue to be used. The hapū wish to be engaged with regarding the ongoing monitoring – this has been included in the proposed conditions. The relationships of Maori and their culture and traditions is also identified as a matter of national importance under Policy MN 1B, meaning they need to be recognised and provided for and effects on those relationships need to be avoided in the first instance, or remedied or mitigated if avoidance is not practicable. Avoidance of any effect is not practicable in this instance, but the proposed conditions contain a range of measures that mitigate the effects on tangata whenua.

Regionally significant infrastructure

The infrastructure section identifies issues around the strategic importance of a range of infrastructure. Wastewater schemes are defined as regionally significant infrastructure. Policy EI 4B is to recognise and provide for the social, economic, cultural and environmental benefits of regionally significant infrastructure, including the maintaining of public health and safety through the provision of essential services. Providing a wastewater scheme for the community provides a public health benefit and enables the community to provide for their social and economic wellbeing.

The Proposal recognises the WWTS as regionally significant infrastructure and the 20 year term sought recognises the social and economic benefits of that infrastructure. Matakana and Rangiwaea Islands Hapū have had input into the Proposal and have identified the potential effects, as well as recommendations for addressing their concerns, one of which is impact on mauri since the pipeline was built. These recommendations have largely been adopted via the proposed consent conditions. The investigations to date have identified minor effects on coastal water quality or ecology, and the conditions provide for ongoing monitoring. The Proposal is consistent with the RPS.

10.5 Regional Plans

10.5.1 Operative and Proposed Regional Coastal Environment Plan

The 19 topics covered in the RCEP include all resource management issues relating to the coastal marine area and issues pertaining to the coastal environment. The RCEP was adopted in December 2002 with changes in 2011 to reflect the NZCPS.

The Proposed Regional Coastal Environment Plan (pRCEP) was publicly notified on 24 June 2014 and decisions released on 1 September 2015. There appeals are currently being dealt with by the Environment Court. The Operative RCEP will remain active until all appeals on the pRCEP have been resolved. Consents are required under both plans.

Both the operative and proposed plans cover matters relating to iwi resource management, coastal water, structures, disturbance and occupation. These relevant objectives and policies are listed in Appendix 6, along with an assessment as to the consistency of the Proposal with these.

Given the stage that the pRCEP is at in the process and the time that has passed since the RCEP, more weight should be placed on the pRCEP and therefore the focus of this assessment has been on the proposed plan.

The pRCEP contains a section on coastal discharges. The section promotes treatment of human sewage via wetlands (Policy CD 9) prior to any discharge to the CMA. The Proposal is consistent with this as the wetlands, which were put in place to address cultural concerns, are to remain part of the WWTP and all wastewater will pass through these before being treated with UV and discharged into the environment.

Another key component is to recognise and provide for the effects on the mauri of the receiving environment caused by the discharge of contaminants (Policy CD 4) and where there are effects on the mauri, *the consent authority shall consider imposition of consent conditions that incorporate the use of mātauranga Māori based methods or cultural indicators that recognise and express Māori values to monitor the effects of the activity on the mauri of the natural and physical resources of the coastal environment (*Policy IW 7).

The proposed conditions adopt the assessment matrix, which includes a suite of Maori values that have been recommended by Matakana and Rangiwaea Islands Hapū to monitor the effects of the Proposal. The conditions also require the Hapū's direct involvement in the monitoring. The Hapū have explained that tuatua are a taonga to them as a keystone species and WBOPDC has undertaken to monitor tuatua in the conditions. Tangata whenua will also play a central role in the process for investigating alternatives to the discharge. Proposed condition 12 establishes Te Ohu Waiora who will be a key part of the alternative investigations,

Tauranga Harbour is identified as an Area of Significant Cultural Value (ASCV-4). The proposed conditions include a requirement to agree with tangata whenua prior to any pipeline investigation on the location and methods to be used to ensure that the cultural values are able to be protected.

The degree of compliance with the Water Quality Standards has been considered in section 8. The water quality will be maintained and contact recreation and shellfish gathering guidelines will be met beyond the mixing zone.

The pRCEP also contains an extensive suite of provisions relating to iwi resource management, covering similar matters to those discussed above in relation to kaitiakitanga, the importance of tangata whenua identifying effects and ways to address them, and the adoption of matauranga Māori where mauri is impacted. The pRCEP also raises offsetting as an option to be considered alongside mitigation and remediation where adverse effects cannot be avoided, but does not require this (ie mitigation and remediation can be proposed). WBOPDC has agreed a number of initiatives with tangata whenua within the consent framework itself, including provision of signage, a comprehensive environmental monitoring programme involving tangata whenua, and to facilitate a further assessment adopting the assessment matrix proposed by Matakana and Rangiwaea Islands hapū.

10.5.2 Regional Air Plan

The Regional Air Plan (RAP) has been operative since 15 December 2003. It contains the objectives and policies relevant to the proposed air discharge. These relevant objectives and policies are listed in Appendix 6, along with an assessment as to the consistency of the proposal with these. The proposal is consistent with the matters as:

- The air quality in the region as a result of the proposed on-going air discharge will be maintained and protected through effective WWTP process operation.
- There will not be any significant adverse effects.
- The onsite management and transportation of biosolids off-site will be managed in such a way that adverse effects on air quality are avoided.

10.6 Assessment of Section 105 Matters

Section 105(1) RMA sets out the matters that a consent authority must have regard to when considering a resource consent application for a discharge permit. In particular, consideration needs to be given to:

- the nature of the discharge:
- the sensitivity of the receiving environment to adverse effects:
- the applicant's reasons for the proposed choice; and
- any possible alternative methods of discharge, including discharge into any receiving environment.

These matters have already been considered in section 8 of this report.

10.7 Section 107 RMA

Section 107 of the RMA places restrictions on granting discharge permits (e.g., to discharge sediment from construction). In particular, the Council must not grant a discharge permit if, after reasonable mixing, the contaminant, or water being discharged is likely to give rise to certain effects in the receiving waters. These effects include any one or more of the following in the receiving waters:

- the production of any conspicuous oil or grease films, scums or foams or floatable or suspended materials
- any conspicuous change in the colour or visual clarity
- any emission of objectionable odour
- any significant adverse effects on aquatic life
- These matters have already been considered.

These matters have already been considered in section 8 of this report.

10.8 Other Matters

10.8.1 Iwi Management Plans

Matakana and Rangiwaea Islands Hapu Management Plan 2012

The Matakana and Rangiwaea Islands Hapu Management Plan (HMP) was presented to the Bay of Plenty Regional Council and Western Bay of Plenty District Council in 2013, and is a formally recognised resource management tool.

The environmental, social, economic and cultural aspirations for the five Hapū are listed in the HMP along with the environmental threats and challenges.

The HMP includes a series of issue and concerns and policies, requirements and desired outcomes. A key are is "Protecting our salt water":

22. *Maintaining salt water quality standards - Our position is that we want full consultation and engagement to develop plans for use of coastal water resources. We want:*

- *Water quality standards regularly monitored and kept within human safety levels*
- *Tikanga and kaitiakitanga practices adhered to at all times*

23. Sewage pipeline discharging into the ocean off the barrier arm. This directly compromises the coastal environment and poisons our kai moana - This has continued since the 1960's. We strongly object to this activity, and want it to cease. We want Council to invest in other more environmentally- friendly methods of disposing of human waste.

The Proposal involves the use of the pipeline so does not implement Number 23 in the medium term.

Consultation about the Proposal has been ongoing since mid 2015. A key outcome was the development of a detailed 'baseline' monitoring and reporting programme that the Hapū will implement in collaboration with WBOPDC. In addition, tanagata whenua will have a key part to play in the alternatives investigations where at least one appropriate and practicable alternative to the ocean outfall discharge will be identified so that a Future Directions Report can confirm the best practicable option for future management of the discharge and the proposed pathway for implementation of the option.

Te Awanui, Tauranga Iwi Harbour Management Plan 2008

The plan has been operational and in effect since February 2008 and is currently under review. The plan was produced by members of the three Iwi of three Iwi of Ngai Te Rangi, Ngāti Ranginui and Ngāti Pukenga in conjunction with the whanau, hapū and iwi of Tauranga Moana as an Iwi Harbour Management Plan.

Matters in relation to water quality and wastewater/sewage are referred to in the Plan and noted in the CIA. Key water quality policies are:

- Policy 1: First and foremost, all discharge of waste to water will be opposed by iwi and hapū of Tauranga Moana. However, waste to water is still a threat to the sustainability of the harbour and must be addressed. Wetland enhancement is required as a consent condition for any proposed wastewater schemes to enhance and increase the availability of wetland area in any discharge zones for tertiary treatment.
- Policy 4. To promote alternative environmentally sound options for waste treatment and disposal systems.

- Policy 5. The duration of sewage disposal consents must not exceed the lifetime of the disposal or treatment system. All consents must be considered in terms of cumulative and long-term impacts.

Tauranga Maori are consistent in advocating discharge to land, allowing Papatuanuku (through wetlands and riparian areas) the opportunity to filter and clean any impurities. However, the use of discharge to land must be accordingly managed with regard to the carrying capacity of the land to ensure that land and water are not at risk to contamination. The WWTP uses wetlands to treat the wastewater prior to UV treatment and discharge to the pipeline. There is a commitment by WBOPDC, through the proposed conditions, to investigate an alternative disposal system.

10.8.2 Other Statutory Approvals Required

There are no other RMA approvals required. The proposal to place a marker buoy at the end of the outfall will also require approval from the Harbourmaster.

10.9 RMA Part 2 Assessment

10.9.1 Overview

Section 104(1)(b) of the RMA sets out the matters that decision-makers are required to have regard to when considering an application for resource consent and any submissions received.

Any such consideration however is subject to Part 2 of the RMA which sets out the purpose and principles of the RMA. The purpose of the RMA as stated in section 5 is to promote the sustainable management of natural and physical resources.

Part 2 of the RMA provides further direction on the matters of national importance (section 6), other matters (section 7), and the principles of the Treaty of Waitangi (section 8) which need to be considered and responded to.

Sections 6, 7 and 8 are considered important to the implementation of Iwi Management Plans from an iwi perspective. The issues and perspectives provided within a Iwi Management Plan are to assist Councils with improved policy and decision-making processes with regard to tangata whenua values and aspirations.

10.9.2 Section 6

Section 6 covers matters of national importance that shall be recognised and provided for. Section 6 states:

"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:"

The Section 6 matters of relevance to this application are discussed below.

Section 6(a) requires recognition and provision for '*The **preservation of the natural character** of the coastal environment, wetlands, and lakes and rivers and their margins and the **protection of them from inappropriate subdivision, use and development***'.

The ocean outfall is subsurface and does not cause adverse effects on the natural character of the coastal environment. However, signage indicating the presence of the pipeline would draw attention such that it could affect the natural character to a minor degree.

In regards to the protection of **outstanding natural features and landscapes** from inappropriate subdivision, use, and development (Section 6(b)), the harbour and area adjacent to Matakana Island are identified in the RCEP as having outstanding natural features and landscapes. The pipeline falls within these areas however

it is subsurface and does not impact on the attributes of the features and landscapes. Further, it is an existing structure that did not affect the Harbour's classification as outstanding.

Section 6(d) addresses the **maintenance and enhancement of public access** to and along the coastal marine area, lakes, and rivers. There will be no effect on public access to these areas.

Section 6(e) requires councils to recognise and provide for the **relationship of Maori** with their ancestral lands, waters, sites, wahi tapu and other taonga. These can include places, sites, areas or objects that have special value or significance to Maori. They may also include well defined areas from which food is obtained (mahinga mataitai), and natural resources valued for other reasons.

Water in particular has high spiritual, social and cultural value to Mäori. In the spiritual sense it is viewed as life giving, as a living entity to be respected and nurtured. In social terms it is used extensively for mahinga mätaitai and recreation, and in cultural terms there are specific areas of the harbour area, which have their own mana, taniwha and wähi tapu, which need to be protected.

The ways in which the Proposal recognises and provides for the relationship of tangata whenua with the coastal waters and taonga, including tuatua, are detailed above under the relevant policy and planning framework.

10.9.3 Section 7

Section 7 covers other matters that shall be given particular 'regard to'. The provisions that are relevant to this application are discussed below.

In addition to section 6(e), section 7(a) further requires regional councils to – Have particular regard to ... **Kaitiakitanga.** The purpose of kaitiakitanga (Section 7(a)) is to ensure sustainability (of whanau, hapū, or iwi) in physical, spiritual, economic, and political terms. There are a number of concepts included in kaitiakitanga. Kaitiakitanga requires:

- Ongoing involvement, and is a responsibility to care for something of great value to the survival of the iwi or hapū;
- Tangata whenua to be provided with the opportunity to exercise guardianship of the natural and physical resources in accordance with tikanga Maori.

WBOPDC have undertaken meetings with tangata whenua as part of enabling the exercise of their role as kaitiaki. Tangata whenua will be involved in an ongoing way with involvement in monitoring the discharge and investigating alternative disposal options.

Section 7(b) requires a consideration of whether a proposal is an **efficient use and development of natural and physical resources**. The Proposal involves using a significant piece of infrastructure – the pipeline – until the end of its predicted effective life rather that ceasing use of it well before it reaches that end. The Proposal represents an efficient use of an existing physical resource by using the pipeline. .

The Proposal provides for the **maintenance and enhancement of amenity values** (Section 7(c)).

In having regard to the **intrinsic values of ecosystems** (Section 7(d)) it is necessary to consider the RMA definition of 'intrinsic values' being:

> *in relation to ecosystems, means those aspects of ecosystems and their constituent parts which have value in their own right, including—*
> *(a) Their biological and genetic diversity; and*
> *(b) The essential characteristics that determine an ecosystem's integrity, form, functioning, and resilience:*

The ecology of the coastal marine area in the vicinity of the discharge has been considered in the effects assessment. The monitoring and investigations to date indicate that the discharge is having little effect. Continued monitoring is proposed.

The **quality of the environment** (Section 7(f)) requires an all-encompassing view of the environment. There will be some impacts on the quality during construction of the diffuser and investigations. The effects of the discharge will have minor effects on the quality.

The effects of **climate change** (section 7(i)) are particularly important for infrastructure decisions given the investment made in physical assets, including stormwater and wastewater systems.

In the region the current climate change predictions are[15]

- Temperatures are likely to be around 1.2˚C warmer by 2040;
- The region will get roughly the same average annual rainfall in 2090 as it does now, but rain may fall at different times (winters are expected to get drier as the century unfolds; by 2090, coastal and south-eastern areas may receive 10 percent less rain than they do now) and have more frequent and intense heavy rainfall events;
- A sea-level rise of between 50 centimetres and 80 centimetres by the 2090s.

As with any infrastructure asset, there is a need to understand and manage the level of risk from climate change. Planning for changes in rainfall is done through ongoing stormwater upgrades so to reduce infiltration into the wastewater system. If required, extra storage capacity could be provided at the WWTP site. The WWTP site is coastal so could be subject to the impacts of sea level rise but any change is likely to occur beyond 20 years.

10.9.4 Section 8

Section 8 states: *"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)."* The wording "shall take into account" requires decision makers to consider the principles of the Treaty with all other matters.

The CIA from the Hapū of Matakana and Rangiwaea Islands and the northern Ngai Te Rangi hapū were useful in identifying matters that are required to be recognised and provided for in making an informed decision.

The CIAs note that to take account of the principles of the Treaty of Waitangi, councils must recognise the role of Tangata Whenua as kaitiaki and provide for tangata whenua involvement in management of the coastal environment. Consultation has been undertaken prior to lodging the consent and an assessment of the effects of the Proposal on cultural values has been undertaken. Tangata whenua will have ongoing involvement in monitoring and as participants in the alternative investigations.

10.9.5 Section 5

The purpose of the RMA is to promote the sustainable management of natural and physical resources. Section 5 goes on to elaborate on the definition of sustainable management, noting:

> *(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 wellbeing and for their health and safety while -*

[15] https://www.boprc.govt.nz/sustainable-communities/climate-change/

(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*

The continued operation and future upgrading of the WWTS, including the associated discharges, will promote the sustainable management of natural and physical resources, including the physical resource of the wastewater system. The WWTS will provide for the present and future health needs of Katikati community by safely treating the community sewage. It will sustain the potential of a significant physical resource (the wastewater network) to meet the reasonably foreseeable needs of future generations.

The operation and maintenance of the WWTS, including the associated discharges, can be undertaken in a manner that will avoid, remedy and mitigate potential effects on the surrounding residential, rural and coastal receiving environments. Conditions imposed on the resource consents will ensure that the potential adverse effects on natural and physical resources arising from the operation will be limited or mitigated.

It is acknowledged that the pipeline and discharge have historically had significant adverse impacts on cultural values in the area and continue to give rise to adverse cultural effects. WBOPDC has engaged with tangata whenua as part of the consent renewal project and commissioned CIAs to better understand the cultural values and report on the cultural impacts of the Proposal. The CIAs have provided recommendations for actions that would assist in mitigating the ongoing effects of the Proposal on them. WBOPDC has taken these on board and has proposed consent conditions that go some way to achieving the recommendations.

The WWTS will better enable people and communities to provide for their wellbeing through the maintenance and enhancement of the existing infrastructure.

11 Conclusion

Western Bay of Plenty District Council seeks resource consents to enable it to continue to operate the Katikati Wastewater Treatment Plant and discharge treated wastewater via an ocean outfall.

The Proposal may give rise to some adverse effects but these are considered to be minor. While it is acknowledged land-based wastewater disposal is the preference of iwi, there are presently no viable options for this and the continued use of the pipeline in the medium term until a viable alternative option is found represents an efficient use of significant existing physical resources. WBOPDC has committed to an alternatives investigation process with the requirement for a report identifying the option within the first 10 years of the operation of this consent.

The Proposal is considered to be generally consistent with the objectives and policies of the relevant planning documents including the NZCPS, the RPS, and the various regional plans.

Consultation has been undertaken with tangata whenua, the Department of Conservation, Public Health and the wider community. All parties recognise the importance of providing community based wastewater schemes. Through the consultation a number of specific information, monitoring and planning measures were sought by parties and have been incorporated into the proposed conditions.

WBOPDC has engaged with tangata whenua as part of the consent renewal project and commissioned CIAs to better understand the cultural values and report on the cultural impacts of the Proposal. The CIAs cover the interests of:

- The five Hapū of Matakana and Rangiwaea Islands; Ngati Tauaiti, Ngai Tuwhiwhia and Ngai Tamawhariua based at Matakana Island, and Te Whanau a Tauwhao and Te Ngare who are located at Rangiwaea Island, Tauranga

- The northern Ngai Te Rangi hapū of Rereatukahia, Tuapiro and Otawhiwhi

There is clearly, as is appropriate, a wish by Tangata Whenua to be involved in all discussions, monitoring and decisions for the remaining lifetime of the pipeline discharge. WBOPDC have accepted in principle the recommendations sought by the Hapū of Matakana and Rangiwaea Islands and Ngai Te Rangi with the exception of a five year term. Consultation and engagement will be ongoing as monitoring of the scheme continues and investigations into alternative disposal options are progressed. There is also particular provision in the consent conditions for ongoing involvement for tangata whenua in the process to investigate alternatives to the discharge to be implemented at the end of the 20 year term, in the monitoring of the discharge and its effects, and in the reporting required under the consent. There is also provision for community representatives to be involved in the alternatives investigation process.

The key RMA tests, as contained in section 104, 105 and 107 of the RMA are assessed in Sections 8 and 10 of this report. In terms of Part 2 of the RMA, the Proposal will enable the Katikati community and future generations to provide for social wellbeing and health without affecting the natural and physical resources of the environment in any significant manner, or in a way that cannot be adequately managed via the proposed conditions of consent.

WBOPDC request that the application be publicly notified.

Appendix 1 – Existing Consents

Consent Number: 24895

BAY OF PLENTY REGIONAL COUNCIL

RESOURCE CONSENT

Pursuant to section 105 of the Resource Management Act 1991, the **BAY OF PLENTY REGIONAL COUNCIL**, by a decision dated 12, 13 and 14 November 1997 and amended by the Environment Court by a decision dated 9 November 1998, **HEREBY GRANTS** to:

WESTERN BAY OF PLENTY DISTRICT COUNCIL

A permit pursuant to section 15 (1)(a) of the Resource Management Act 1991 to **DISCHARGE TERTIARY TREATED EFFLUENT TO THE PACIFIC OCEAN** subject to the following conditions:

1 PURPOSE

SEE CHANGE

~~For the purpose of discharging wastewater from the Katikati Township from a treatment system consisting of aerated lagoons, constructed wetlands and ultraviolet disinfection, to the Pacific Ocean.~~ For the purpose of discharging wastewater from the Katikati Township and the new pipeline between Sharp Road and the Katikati Township from a treatment system consisting aerated lagoons, constructed wetlands and ultraviolet disinfection, to the Pacific Ocean.

2 QUANTITY AND RATE

2.1 The daily quantity of effluent discharged shall not exceed 3000 cubic metres

2.2 The rate of discharge shall not exceed 130 cubic metres per hour.

3 POINT OF DISCHARGE

Discharge shall be into the Pacific Ocean through the existing 650 metre outfall located off Matakana Island.

4 MAP REFERENCE

At or about map reference NZMS 260 U13 810 015

5 LEGAL DESCRIPTION (AT SOURCE)

Crown Land (Sea Bed) Block III Matakana SD (Western Bay of Plenty District).

6 OUTFALL

6.1 The consent holder shall install flow measuring devices at the pigging station on Matakana Island and the outfall pump station at Prospect Drive Katikati to measure the flowrate of treated effluent to an accuracy of plus or minus five percent.

6.2 The consent holder shall perform a total flow balance over the outfall pipeline from the Prospect Drive treatment plant to the Matakana Island pigging station on a monthly basis.

6.3 The consent holder, shall in the year 2007, undertake an investigation into the structural integrity of the outfall pipeline from Prospect Drive to the Matakana outfall structure.

6.4 The consent holder shall, six months after the commencement of this consent, fit a diffuser structure to the Ocean outfall off Matakana Island that will significantly increase the initial dilution achieved upon discharge. The fitted diffuser structure shall meet the written approval of the General Manager of the Regional Council or delegate.

7 THE TREATMENT SYSTEM

7.1 ~~The consent holder shall operate and maintain to the satisfaction of the General Manager of the Regional Council or delegate, a wastewater treatment facility capable of treating all domestic wastewater produced by the township of Katikati.~~ The consent holder shall operate and maintain to the satisfaction of the General Manager of the Regional Council or delegate, a wastewater treatment facility capable of treating all domestic wastewater produced by the township of Katikati and along the new pipeline between Sharp Road and the Katikati Township.

SEE CHANGE

7.2 The consent holder shall maintain and amend if necessary trade waste bylaws to prevent the discharge of toxic substances into the sewer system, which affects the operation of the treatment system or the environment.

7.3 The consent holder shall ensure, as far as is reasonable that stormwater (apart from that entering as infiltration) is not discharged into the sewerage system.

SEE CHANGE

7.4 The permit holder shall ensure that all practicable steps are taken to prevent the discharge of untreated effluent from the Katikati wastewater treatment plant site.

SEE CHANGE

7.5 The permit holder shall ensure all liquid collected into the emergency pond and liquid collected in each of the dewatering pond's sump is transferred to the oxidation ponds for treatment prior to discharge to the ocean.

SEE CHANGE

7.6 The permit holder shall ensure that the emergency pond as well as the dewatering ponds are constructed in general accordance with BOPRC Plan No. RC 24895-1, RC 24895-2,

RC 24895-3, RC 24895-4, RC 24895-5, RC 24895-6, RC 24895-7, RC 24895-8 and all other documents submitted with change application number 4.

SEE CHANGE

7.7 All ponds shall be lined with polyethylene liner. All polyethylene liner fabrication and testing shall be carried out in accordance with the polyethylene manufacturer or supplier's specifications.

8 EFFLUENT QUALITY

8.1 Commissioning

Eighteen months after the commencement of this consent all waste water discharged via the Matakana Island outfall after treatment in aerated lagoons, surface flow wetlands and treatment with ultraviolet light shall meet the following standards:

a) The effluent shall be substantially free from oil and grease.

b) The median of five consecutive five-day carbonaceous biochemical oxygen demand daily mass discharges, as measured pursuant to condition 9.1, shall not exceed 55 kilograms.

c) The median of five consecutive suspended solids daily mass discharges, as measured pursuant to condition 9.2, shall not exceed 55 kilograms.

d) The mean of five consecutive total nitrogen daily mass discharges, as measured pursuant to condition 9.3, shall not exceed 40 kilograms.

e) The median faecal coliform concentration of samples taken within one month shall not exceed 1000 per 100ml, and the maximum concentration of any sample shall not exceed 5000 per 100mL

f) The maximum enterococci concentration shall not exceed 2000 per 100ml.

8.2 Post Commissioning

Forty months after the commencement of this consent or twenty two months after commissioning, which ever is the sooner, all wastewater discharged via the Matakana Island outfall after treatment in aerated lagoons and surface flow wetlands and treatment with ultraviolet light shall meet the following standard;

a) The effluent shall be substantially free from oil and grease

b) The median of five consecutive five-day carbonaceous biochemical oxygen demand daily mass discharges, as measured pursuant to condition 9.1, shall not exceed 40 kilograms

c) The median of five consecutive suspended solids daily mass discharges, as measured pursuant to condition 9.2, shall not exceed 40 kilograms.

d) The mean of five consecutive total nitrogen daily mass discharges, as measured pursuant to condition 9.3 shall not exceed 55 kilograms.

e) The median of faecal coliform concentrations of samples taken within one month shall not exceed 500 per 100ml, and the maximum concentration of any sample shall not exceed 1000 per 100mL.

f)The maximum enterococci concentration shall not exceed 300 per 100mL.

8.3 Samples taken at 100m and 200m from the outfall structure off Matakana Island shall meet the shellfish gathering water quality standard as specified in the "Provisional Microbiological water quality guidelines for Recreational and Shellfish-gathering waters in New Zealand" (January 1992, Public Health Services Department of Health Wellington).

8.4 Samples taken at 50m shall meet the contact recreation standard as specified in the "Provisional Microbiological water quality guidelines for Recreational and Shellfish-gathering waters in New Zealand" (January 1992, Public Health Services Department of Health Wellington).

9 EFFLUENT MONITORING

The consent holder shall measure and record the following parameters.

9.1 The concentration and mass daily discharge of five-day carbonaceous biochemical oxygen demand on at least one day per week as measured by the analysis of 24-hour flow proportional composite samples.

9.2 The concentration and mass daily discharge of suspended solids on at least one day per week as measured by the analysis of 24-hour flow proportional composite samples.

9.3 The concentration and mass daily discharge of total nitrogen on at least one day per week as measured by the analysis of 24-hour flow proportional composite samples.

9.4 The concentration of nitrate nitrogen on at least one day per month as measured by the analysis of 24-hour flow proportional composite samples.

9.5 The concentration of nitrite nitrogen one day per month as measured by the analysis of 24-hour flow proportional composite samples.

9.6 The concentration of Kjeldahl nitrogen on at least one day per month as measured by the analysis of 24-hour flow proportional composite samples.

9.7 The number of faecal coliform bacteria per 100mL of four representative grab samples of the effluent taken no less than six days apart within a month, each month.

9.8 The number of enterococci bacteria per 100mL of four representative grab samples of the effluent taken no less than six days apart within a month, each month.

9.9 The volume of effluent discharged from the UV pump station each day.

9.10 The volume of effluent reaching the pigging stations on Matakana Island each day.

9.11 During February, May, August and November of each year, the consent holder shall collect a representative sample of effluent and analyse for the following constituents:

Arsenic

Chromium

Mercury

Lead

Cadmium

Copper

Nickel

Zinc

9.12 Replicate samples of the effluent shall be supplied to the Regional Council for comparative analysis as required by the Chief Executive of the Regional Council or delegate.

10 MICROBIAL WATER QUALITY MONITORING

The consent holder shall carry out a programme of microbiological water monitoring from the time this consent commences as set out in the conditions of this consent.

10.1 Water samples shall be taken from the following locations:

Approximately 200m directly up current of the outfall structure.

At points as close as is practical to 50m, 100m and 200m down current of the outfall structure.

10.2 Analysis shall be carried out for entercocci and faecal coliform bacteria.

10.3 Ten samples shall be taken from each sample location.

10.4 Samples shall be taken in the months of February, May, August and November of each calendar year.

10.5 Microbiological enumeration shall be carried out using methods approved in writing by the General Manager of the Regional Council or delegate.

10.6 As required by the Chief Executive of the Regional Council or delegate, replicate samples will be supplied to the Regional Council for comparative analysis.

11 REPORTING

11.1 Results of all monitoring shall be sent to the Regional Council within one month of the time of sampling.

11.2 Every five years after the commencement of this consent the consent holder shall submit to the Regional Council a report on the feasibility of improving the bacterial quality of effluent discharged, to a standard that will enable the reasonable mixing zone of this discharge to be lessened allowing compliance with the shellfish gathering water quality standard as specified in the "Provisional Microbiological water quality guidelines for Recreational and Shellfish-gathering waters in New Zealand" (January 1992, Public Health Services Department of Health Wellington) at a distance less than 50m from the outfall.

11.3 The consent holder shall have all flow measuring devices that are required to collect flow data under the conditions of this consent checked and calibrated annually by a suitably qualified person. The results of these calibration checks shall be submitted to the Regional Council within one month of the check taking place.

11.4 The consent holder shall, seven years of after the granting of this consent, submit to the Bay of Plenty Regional Council, an investigation and report on the effect of this discharge on the marine habitat surrounding the Matakana Island outfall.

SEE CHANGE

11.5 The permit holder shall provide the Regional Council with "as built" plans of the emergency pond and each of the dewatering pond(s) no later than one month after the end of the construction of each individual pond (See Advice Note 1).

SEE CHANGE

11.6 No less than five working days prior to the start of the dredging operation, the permit holder shall notify (in writing) the Chief Executive of the Regional Council or delegate. Notification at this time shall include details of who is to be responsible (including phone number) for site management and compliance with permit conditions (see Advice Note 1).

12 ALTERNATIVE DISPOSAL OPTIONS

12.1 That during the term of this permit there shall be a positive commitment on the part of Council as consent holder to investigate alternative effluent disposal options with a view to ceasing the discharge from the ocean outfall at the expiry of this consent or at such earlier time as determined by the consent holder in consultation with the Matakana Island community. It is acknowledged that the consent holder will at all times use its best endeavours to meet this commitment but that it cannot guarantee absolutely that it will be able to provide a practicable alternative at the expiry of the consent.

12.2 For the purpose of implementing this commitment, the consent holder shall observe the following:

(i) By 31 October 2007, submit to the Bay of Plenty Regional Council a report on investigations of alternatives to the discharge of effluent from Katikati via the ocean outfall. Such alternatives shall include land based disposal options including the feasibility of forest irrigation on Matakana Island on land owned by Te Kotukutuku Corporation Limited.

(ii) By 31 October 2012 submit to the Bay of Plenty Regional Council a report updating the earlier report dated 31 October 2007, and identifying the preferred option(s).

(iii) The studies to be completed by 31 October 2007 and 31 October 2012 shall have regard to engineering, cultural, environmental, financial and other relevant considerations.

(iv) That by 1 January 1999 there shall be constituted a Matakana Island Liaison Group consisting ~~of four members~~ of up to four members from the Matakana Island community. The Liaison Group shall as its purpose the objective of ensuring the consent holder observes its commitment to investigate alternative disposal options. For this purpose the consent holder shall report and meet at least annually with the Liaison Group but no later than 31 October in each year as to its progress in considering alternative options and shall make available to the Group all available material and data relating to its investigations. The reasonable costs of the Liaison Group shall be met by the consent holder.

SEE CHANGE

~~13 COMMUNITY CONTRIBUTION~~

SEE CHANGE

~~13.1 Subject to the commencement of this consent and other consents including the designation relating to the treatment plant at Prospect Drive, Katikati, and disposal through the ocean outfall, the consent holder shall establish a Community Fund of $ 125,000 to be used for the benefit of the Matakana Island Cmmmunity to provide and/or improve community facilities and assets on the Island in accordance with the terms of a Trust Deed and in accordance with the decision of three Trustees appointed by the Matakana community subject to the approval of the consent holder.~~

~~13.2 That on commencement of this consent and other consents including the designation relating to the treatment plant at Prospect Drive, Katikati, and disposal through the ocean outfall, the consent holder shall undertake at its cost a study of on site effluent treatment systems at Opureroa Village and Marae for the purpose of identifying ant effluent disposal problems currently existing in those areas and recommending the preferred options for avoiding/mitigating those problems and on completion of that study, the consent holder shall meet the costs of implementing the preferred option for improving effluent treatment and disposal for the Opureroa Marae.~~

14 **REVIEW OF CONDITIONS**

14.1 The Bay of Plenty Regional Council may, within two months after the receipt of the report specified in condition 11.2 of this consent, serve notice on the consent holder under section 128(1)(a)(i) and (iii) of the Resource Management Act 1991 of its intention to review the conditions of this consent. The purpose of such a review is to adjust the bacterial effluent quality limits (as specified in condition 8.2) so as to protect against microbial contamination of the waters off Matakana Island.

14.2 The Bay of Plenty Regional Council may, within two months after the receipt of compliance and/or monitoring data, serve notice on the consent holder under section 128(1)(a)(i) and (iii) of the Resource Management Act 1991 of its intention to review the conditions of this consent. The purpose of such a review is to adjust effluent quality limits so as to protect against contamination of the waters off Matakana Island.

15 **TERM OF PERMIT**

This permit shall expire on 30 November 2016.

16 **RESOURCE MANAGEMENT CHARGES**

The consent holder shall pay the Bay of Plenty Regional Council such administrative charges as are fixed from time to time by the Regional Council in accordance with section 36 of the Resource Management Act 1991.

17 **THE PERMIT** hereby authorised is granted under the Resource Management Act 1991 and does not constitute an authority under any other Act, Regulation or Bylaw.

SEE CHANGE

Advice Note:

1. *The supply of "As built" plans required by condition 11.5 and 11.6 of this permit shall be made in writing to the Manager Pollution Prevention, Environment Bay of Plenty, Box 364, Whakatane or notify@envbop.govt.nz including the permit number 24895.*

2. *The disposal of the dewatered solids resulting from the exercise of this permit may require a resource consent (discharge permit) depending on the quality of the solids and shall be determined on a case by case basis.*

DATED at Whakatane this 2nd day of August 1999

For and on behalf of
The Bay of Plenty Regional Council

J A Jones
Chief Executive

CHANGE

The change of this resource consent was approved under delegated authority of the Bay of Plenty Regional Council, dated 21 August 2003 as follows:

Condition 12.2(iv)

Condition 12.2(iv) is amended by deleting the phrase "of four members" and replacing with the phrase "of up to four members so the condition now reads:

That by 1 January 1999 there shall be constituted a Matakana Island Liaison Group consisting of up to four members from the Matakana Island community. The Liaison Group shall have as its purpose the objective of ensuring the consent holder observes its commitment to investigate alternative disposal options. For this purpose the consent holder shall report and meet at least annually with the Liaison Group but no later than 31 October in each year as to its progress in considering alternative options and shall make available to the Group all available material and data relating to its investigations. The reasonable costs of the Liaison Group shall be met by the consent holder.

Condition 13

Delete condition 13

R B Gardner
Manager Consents and Compliance

for J A Jones
Chief Executive

CHANGE

The change of this resource consent was approved under delegated authority of the Bay of Plenty Regional Council, dated 22 September 2004 as follows:

Condition 1

Delete the wording of condition 1 and replace with:

For the purpose of discharging wastewater from the Katikati Township and the new pipeline between Sharp Road and the Katikati Township from a treatment system consisting aerated lagoons, constructed wetlands and ultraviolet disinfection, to the Pacific Ocean.

Condition 7.1

Delete the wording of condition 7.1 and replace with:

The consent holder shall operate and maintain to the satisfaction of the General Manager of the Regional Council or delegate, a wastewater treatment facility capable of treating all domestic wastewater produced by the township of Katikati and along the new pipeline between Sharp Road and the Katikati Township.

A C Bruere
Manager Consents and Compliance

for J A Jones
Chief Executive

Change

The change to this resource consent was approved under delegated authority of the Bay of Plenty Regional Council, dated 17 November 2008, as follows:

Add conditions 7.4 to 7.7;

7.4.1 The permit holder shall ensure that all practicable steps are taken to prevent the discharge of untreated effluent from the Katikati wastewater treatment plant site.

7.5 The permit holder shall ensure all liquid collected into the emergency pond and liquid collected in each of the dewatering pond's sump is transferred to the oxidation ponds for treatment prior to discharge to the ocean.

7.6 The permit holder shall ensure that the emergency pond as well as the dewatering ponds are constructed in general accordance with BOPRC Plan No. RC 24895-1, RC 24895-2, RC 24895-3, RC 24895-4, RC 24895-5, RC 24895-6, RC 24895-7, RC 24895-8 and all other documents submitted with change application number 4.

7.7 All ponds shall be lined with polyethylene liner. All polyethylene liner fabrication and testing shall be carried out in accordance with the polyethylene manufacturer or supplier's specifications.

Add conditions 11.5 and 11.6

11.5 The permit holder shall provide the Regional Council with "as built" plans of the emergency pond and each of the dewatering pond(s) no later than one month after the end of the construction of each individual pond (See Advice Note 1).

11.6 No less than five working days prior to the start of the dredging operation, the permit holder shall notify (in writing) the Chief Executive of the Regional Council or delegate. Notification at this time shall include details of who is to be responsible (including phone number) for site management and compliance with permit conditions (see Advice Note 1).

Add **Advice Note**:

3. *The supply of "As built" plans required by condition 11.5 and 11.6 of this permit shall be made in writing to the Manager Pollution Prevention, Environment Bay of Plenty, Box 364, Whakatane or notify@envbop.govt.nz including the permit number 24895.*

4. *The disposal of the dewatered solids resulting from the exercise of this permit may require a resource consent (discharge permit) depending on the quality of the solids and shall be determined on a case by case basis.*

A L Lawrie
Consents Manager

for W E Bayfield
Chief Executive

Consent Number: 30136

BAY OF PLENTY REGIONAL COUNCIL

RESOURCE CONSENT

Pursuant to section 105 of the Resource Management Act 1991, the **BAY OF PLENTY REGIONAL COUNCIL**, by a decision dated 12, 13 and 14 November 1997 and amended by the Environment Court by a decision dated 11 November 1998, **HEREBY GRANTS** to:

WESTERN BAY OF PLENTY DISTRICT COUNCIL

A permit to **DISCHARGE ODOROUS GASES FROM KATIKATI SEWAGE TREATMENT PLANT TO THE AIR** subject to the following conditions:

1 **PURPOSE**

To discharge odorous gases from the Katikati Sewage Treatment Plant located on Prospect Drive, Katikati.

2 **POINTS OF DISCHARGE**

SEE CHANGE

To the air from the primary screening building, the aerated lagoons (2), wetlands (2), emergency overflow pond (1) and up to two dewatering ponds (including the dewatering bags stored within the dewatering ponds) as shown on BOPRC Plan Number RC 30136. ~~and associated operations excluding sludge removal from the treatment plant as shown on Figure 2.1, Prospect Drive, Treatment Plant Site plan, Western BOP District Council, Katikati Waste Water Treatment and Disposal, Alandale Group, December 1996, submitted with the application.~~

3 **MAP REFERENCE**

NZMS 260 T13 695 007 at the site of the aerated lagoons.

4 **LEGAL DESCRIPTION**

Lot 4 DPS 27471, Block IX, Katikati SD (Western Bay of Plenty District).

5 **EMISSION LIMITS AND CONTROLS**

5.1 The consent holder shall ensure that all screenings from the primary screen are contained and sealed, to restrict gases discharging from the screenings, prior to and during removal of them off site, to reduce the potential discharges of odour to a level where there is not likely to be an odour nuisance generated from the screenings removal.

5.2 The consent holder shall ensure that any spillage of screenings shall be cleaned as soon as possible to prevent odour discharge.

5.3 The consent holder shall enclose the primary screen to reduce the likelihood of odour discharges being discharged from the incoming effluent and being carried by wind movement.

5.4 The consent holder shall dilute the first effluent placed in the aerated lagoons to reduce the possible odour generated until desired oxygen levels are reached in the effluent to ensure that the effluent is aerobic.

5.5 The consent holder shall aerate the lagoons to maintain an oxygen level in the lagoons so that the upper level of the lagoons are maintained in an aerobic state at all times.

5.6 The consent holder shall ensure that the liquid in the wetlands is aerobic.

5.7 The consent holder shall maintain a buffer zone of at least 150m from the aerated lagoons.

5.8 The consent holder shall notify the Regional Council in writing of any changes to plant or operation of the sewage treatment plant which may increase discharges of contaminants to atmosphere.

5.9 The consent holder shall notify the Council of any changes to the proposal which may increase discharges of contaminants to the atmosphere or cause discharges to land or water.

6 MONITORING

6.1 The consent holder shall monitor the oxygen level in the effluent in the aerated lagoons on a continuous basis.

6.2 The consent holder shall monitor the operation of the aerators to ensure they are operational when required to aerate the effluent on a continuous basis.

6.3 The consent holder shall monitor the oxygen level in the effluent in the wetlands on a weekly basis.

6.4 The sampling methods for determining oxygen content shall be agreed upon between the consent holder and the Chief Executive of the Regional Council or delegate.

7 REPORTING

The consent holder shall submit the results of measurements of oxygen level and inspection of the wetlands as required in condition 6 to the Regional Council by the fifteenth day of the following month.

8 **REVIEW OF CONSENT CONDITIONS**

SEE CHANGE

The Regional Council may, within 6 of receipt of compliance monitoring or regular and frequent odours complaints have been received and validated by an enforcement officer of the Regional Council as being generated within the dewatering ponds or by the dredging, pumping or solids dewatering operation, ~~months following the first six months, 12 months, 18 months and three years of use of the site for waste treatment,~~ serve notice on the consent holder under s.128(1)(a)(i) and or (iii) of the Resource Management Act 1991 of its intention to review the conditions of this permit ~~consent~~. The purpose of such a review is to assess the need for monitoring and treatment of air discharges from the above sources by a suitable odour control method. The review may also impose monitoring and discharge control conditions relating to these discharges, if appropriate. ~~waste treatment plant including the primary screen, aerated lagoons, and wetlands by the best practicable option approach such as chemical scrubbing, biofiltration, chemical treatment or other suitably effective odour control process, and to impose monitoring and discharge control conditions relating to these discharges, if appropriate.~~

9 **MAINTENANCE**

The odour control systems and the Katikati Sewage Treatment Plant shall be maintained and operated to the satisfaction of the Chief Executive of the Regional Council or delegate so as to maintain a level of discharge which will not cause adverse effects from the discharge of contaminants to air.

10 **TERM OF PERMIT**

This permit shall expire on 30 November 2016

11 **RESOURCE MANAGEMENT CHARGES**

The consent holder shall pay to the Bay of Plenty Regional Council such administrative charges as are fixed from time to time by the Regional Council in accordance with section 36 of the Resource Management Act 1991.

12 **THE PERMIT** hereby authorised is granted under the Resource Management Act 1991 and does not constitute an authority under any other Act, Regulation or Bylaw.

DATED at Whakatane this 2nd day of August 1999

For and on behalf of
The Bay of Plenty Regional Council

J A Jones
Chief Executive

Change

The change to this resource consent was approved under delegated authority of the Bay of Plenty Regional Council, dated 26 November 2008, as follows:

1.1 **Item 2: Points of Discharge**: Item 2 should read as follow:

"To the air from the primary screening building, the aerated lagoons (2), wetlands (2), emergency overflow pond (1) and up to two dewatering ponds (including the dewatering bags stored within the dewatering ponds) as shown on BOPRC Plan Number RC 30136."

1.2 **Condition 8**: Replace this condition so it reads:

"The Regional Council may, within six months of receipt of compliance monitoring or regular and frequent odours complaints have been received and validated by an enforcement officer of the Regional Council as being generated within the dewatering ponds or by the dredging, pumping or solids dewatering operation, serve notice on the permit holder under s. 128(1)(a)(i) and or (iii) of the Resource Management Act 1991 of its intention to review the conditions of this permit. The purpose of such a review is to assess the need for monitoring and treatment of air discharges from the above sources by a suitable odour control method. The review may also impose monitoring and discharge control conditions relating to these discharges, if appropriate."

A L Lawrie
Consents Manager

for W E Bayfield
Chief Executive

27 February 1998 Todd Whittaker P/1158/214/2

1~

Dear Sir/Madam

REQUIREMENT FOR DESIGNATION - KATIKATI WASTEWATER TREATMENT PLANT AND BUFFER ZONE

I refer to the above application which was considered by the Special Hearings Committee meeting held on 12-14 November 1997 and advise of Council's decision as follows:

THAT the requirement for Wastewater Treatment and Disposal purposes on Lot 4 DPS 27471 and the Buffer zone extending 150 metres from the edge of the aerated lagoons, which excludes the establishment or erection of dwellings, partially over Lot 3 DPS 27471 be confirmed pursuant to Section 168A(3) of the Resource Management Act 1991 subject to the following conditions –

1. ***Operation of Facility***

   (a) *The plant shall operate only as long as all necessary resource consents have been obtained from Environment BOP and remain current.*

   (b) *The development of the site shall be generally limited to the treatment of sewage as proposed in the application report prepared by Alandale Group submitted on 23 December 1996, except that the requiring authority may also establish a third wetland in accordance with Figure 2 in the "Statement of Evidence" by CBM Duncan.*

   (c) *The scope of the designation shall extend to de-sludging of the aerated lagoons and de-watering of sludge, including the transport of de-watered sludge off the property, but shall not include sludge disposal on site.*

   (d) *The plant shall be operated within the parameters of its design capacity specified in the "Statement of Evidence" by CBM Duncan and in particular the plant will not be permitted to receive trade waste which may potentially compromise the operation of the plant resulting in off-site environmental effects.*

2. ***Mosquito, Bird and Other Pests Control***

   Effective monitoring and control procedures shall be implemented at the site for mosquitoes, birds and other pests and in particular the following measures shall be taken:

(a) *A pest monitoring and control programme shall be implemented from the time of the plant being commissioned to prevent any pest problem from becoming established on the site.*

(b) *The requiring authority shall provide a monitoring report to the consent authority six months after the plant is commissioned and thereafter on an annual basis. The monitoring report shall ascertain and record the presence of pests on the subject site, specify the method and frequency of monitoring and shall be to the satisfaction of the Group Manager - Forward Planning.*

(c) *Suitable eradication measures shall be carried out from time to time, commencing as necessary to minimise the incidence of pests as identified by the monitoring reports.*

3. ***Potential for on and off-site Flooding***

The requiring authority shall ensure that no additional off-site effects from flooding or ponding will occur on adjoining or nearby properties beyond that which would occur if the wastewater treatment plant did not proceed . In particular the requiring authority shall

(a) *Carry out, to the satisfaction of the consent authority, an assessment of the existing and potential flooding problems of the subject property to ascertain the extent of flooding which may occur if the wastewater treatment plant does not proceed.*

(b) *Submit for approval by the consent authority and Environment BOP a detailed design of site works which fully demonstrates how back ponding and flooding will be controlled to ensure that there shall be no additional off-site effects to adjoining or nearby properties.*

(c) *The assessment and design of site works shall be submitted to both consent authority and Environment BOP before any site works are commenced and will be subject to all relevant standards and/or resource consents from the respective authorities.*

4. ***Noise***

(a) *The following noise levels shall be complied with at the northern and eastern site boundaries and at the boundary of the buffer zone to the west of the subject site:*

Monday to Friday	*7.00am - 10.00pm*	*45dBA*
Saturday	*7.00am - 12 noon*	*45dBA*
All other times including Sundays and public holidays		*35dBA*

(b) *The requiring authority shall carry out a noise assessment of the plant operation as soon as it becomes operational and shall submit this report to the consent authority confirming that the noise levels comply with the above conditions within three months of the plant being commissioned.*

(c) *Construction noise shall comply with the provisions of NZS 6803P:1984.*

5. ***Odour***

No objectionable or offensive odour shall be permitted beyond the northern and eastern site boundaries or beyond the boundary of the buffer zone to the west of the subject site.

6. ***Landscaping/Fencing***

(a) *The requiring authority shall erect and maintain a suitable security fence around the perimeter boundary of the subject site to effectively prevent access onto the site and shall provide a suitable gate at the entrance.*

(b) *The existing shelter belts and plantings around the perimeter of the site shall be maintained and a landscape plan shall be submitted and works carried out to the satisfaction of the Group Manager Forward Planning for those areas not currently containing shelter trees or plantings.*

The purpose of the landscaping shall be to provide a visual buffer between the site and adjoining properties and harbour and shall be established to be in accordance with the general character of the area.

(c) *The requiring authority shall consult with the adjoining property owners prior to preparing the landscape plan and shall take into account any recommendations that these owners may have regarding the type and location of any proposed landscaping and fencing. The requiring authority shall submit details of consultation to the Group Manager - Forward Planning with the proposed landscaping and fencing plan.*

(d) *The landscape plan shall be submitted prior to the plant being commissioned and the works shall be completed within six months of the plant being commissioned.*

7. ***Signs***

Only one sign shall be permitted in relation to the purpose of the proposed site and will be limited to a 1m^2 on-site sign.

8. ***Engineering Conditions***

(a) *That a vehicle entrance to serve proposed development be constructed in accordance with Council's Standard Specification Drawing No AFQ1, diagram B, except that the turning radii be constructed tangential to the existing turning head.*

(b) *That the proposed access roads, car parking and manoeuvring areas to have 130mm min compacted GAP 40 basecourse, two-coat chip seal and pavement marking in accordance with Council's Standard Specifications.*

OR

That if written statements are received from all adjacent affected Landowners to the development stating they do not require the proposed access roads, car parking and manoeuvring areas to have a sealed surface, a standard metalled surface will be acceptable, except that a pavement marking alternative for the car parks shall be submitted to the Group Manager: Forward Planning for approval.

(c) *That the requiring authority submit to the Group Manager: Forward Planning for approval construction drawings, specifications, calculations and project cost estimates, a schedule covering all sections of work to be carried out in accordance with Council's Standard Specifications with the appropriate engineering inspection fee prior to commencing any work on site.*

(d) *That the work required by the above conditions to be supervised and certified as complete in accordance with these conditions by the Developers representative, (refer Section 15.3.5.1 of Council's Proposed District Plan, Aug 1996), prior to the operation of the proposed development.*

(e) *The owners of adjoining and neighbouring properties be consulted to determine the most appropriate months for earth works to be carried out, so as to minimise the possibility of dust damage/nuisance to kiwifruit and packhouse operations.*

9. ***Review Condition***

The requiring authority accepts to be bound and shall comply with the procedure provided in Section 128 to 132 of the Resource Management Act for reviewing conditions of a resource consent and acknowledges this condition shall be enforceable against it.

Accordingly the requiring authority accepts that Council as the consent authority issue notice under Section 128 of the Resource Management Act 1991 of its intention to review conditions 1 to 8 inclusive.

Such notice may be any time between six months and two years after commencement of the consent and every second year thereafter during the month of January on any odd numbered year following January 1999.

The conditions may be reviewed for the purpose of ensuring that they are adequate to protect the amenity values and quality of the environment for residents and their properties in the neighbouring vicinity.

This decision and its reasons were adopted by Council at its meeting on 26 February 1998 on the basis of the recommendation and report by Mr Alan Bickers who acted as Commissioner for Council (attached).

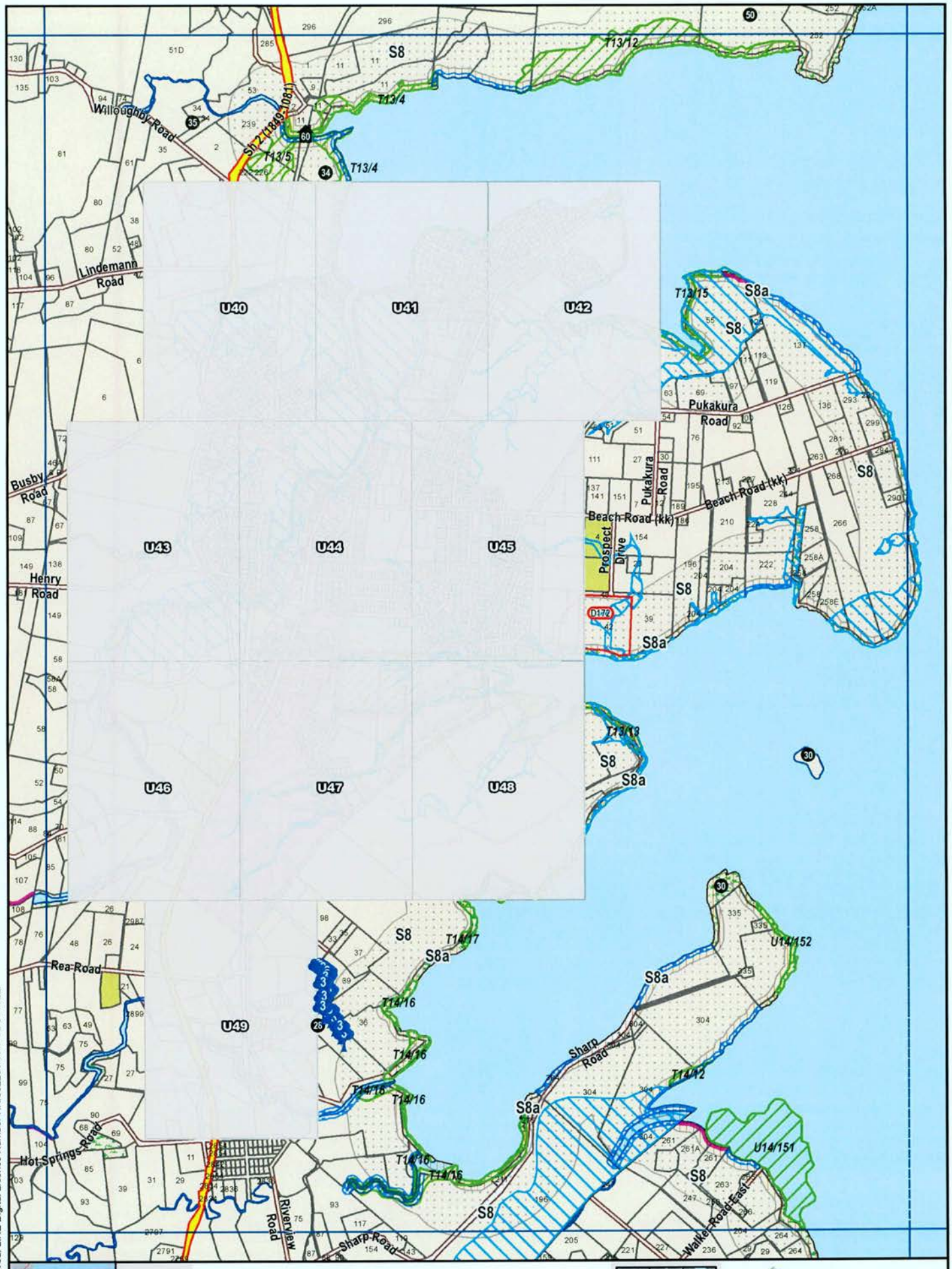
If you wish to appeal against Council's decision or any part of it, you have 15 working days from the date on which this decision is deemed to have reached you to lodge an appeal with the Environment Court. Advice from a solicitor is recommended for any person considering lodging an appeal.

Yours faithfully

Todd Whittaker
TEAM LEADER CONSENTS

tcw:tar:120319:113650.1

Appendix 2 - District Plan Map and Reticulated Area



D03 Rural Series

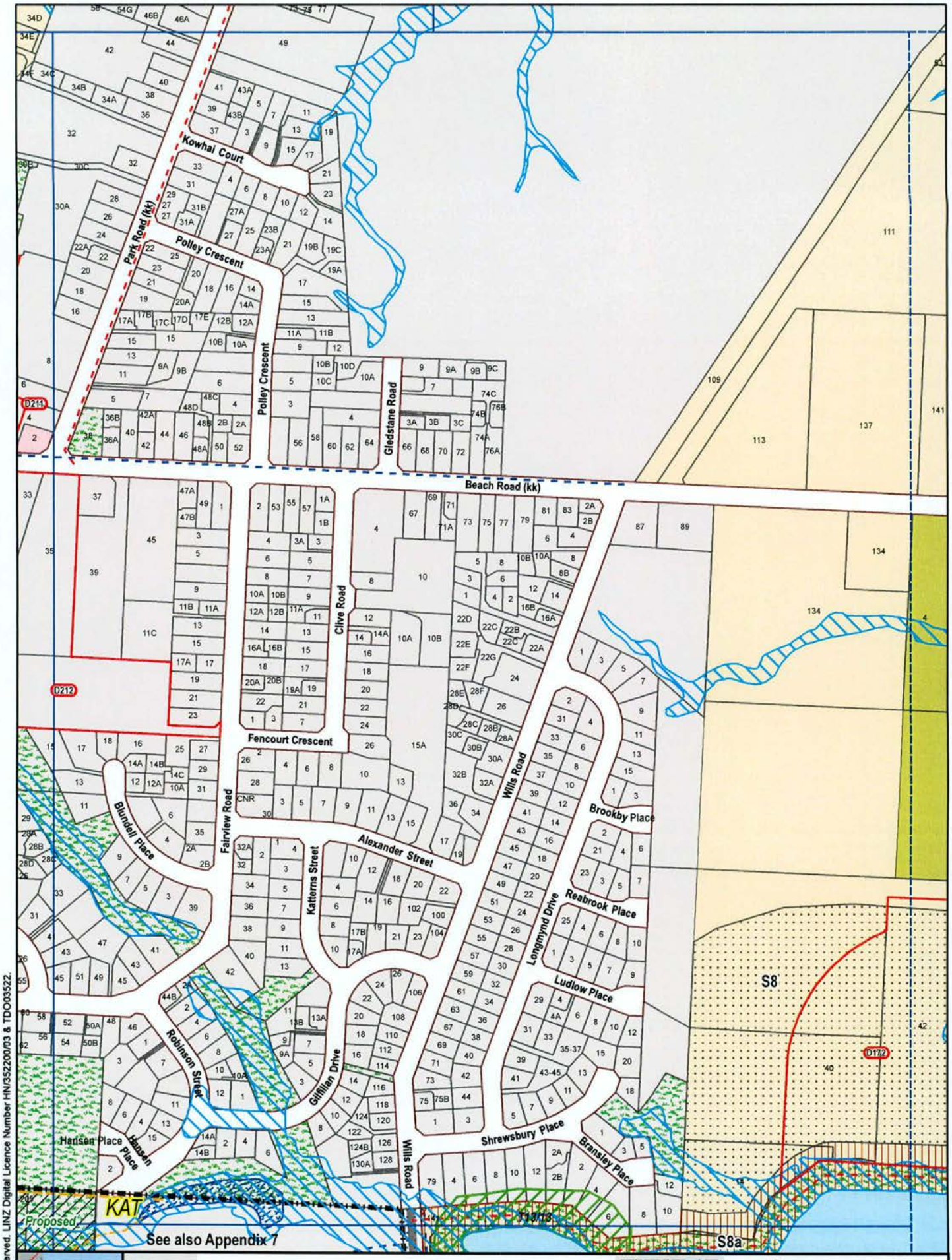
Scale 1:25000 (A4)

0 200 400 600 800 1000 1200 1400m

C02	C03	C04
D02	D03	D04
E02	E03	E04

Western Bay of Plenty District Council

Revision Date: 28 September 2013



U45

Katikati

Western Bay of Plenty District Council

0 50 100 150 200 250m

Scale 1:5000 (A4)

Revision Date: 22 January 2016

Email: gis@westernbay.govt.nz
Date: 26/04/2016
Operator: kjw
Map: E:\Shape\KJW\MXD\As-built updates - 4.mxd

Scale A4 - 1:27,334
0 100 200 400 600 800
Meters

Western Bay of Plenty District Council

Katikati Wastewater Network

N

Appendix 3 - Timeline

Katikati wastewater timeline

1964	Katikati Cooperative Dairy Company apply to register for a temporary permit for an outfall and discharge
1965	Full permit granted for Dairy Co discharge until May 1979 for peak of 1250m3/d
1965/66	County Council consider need to reticulate sewerage for Katikati township
1971-75	Tauranga Harbour water quality classifications set and then changed
1972	County Council apply to use land to build oxidation ponds and an outfall to the harbour. Hearing cancelled June 1973
1974	Regional water Board pushes for removal of all discharges from the harbor
Oct 1974	County Council present revised proposal for pipeline to Matakana Island and land disposal. Community concerned over cost
Feb 1977	Dairy Co apply for an ocean outfall with peak discharge of 25000m3/d
July 1977	Dairy Co application granted
	Invitation to County Council to use pipeline
Sept 1977	County Council applies to the Water Board to discharge 1000m3/d using the Dairy Co pipeline. Water right granted Dec 1977, to expire Sept 1993
July 1979	pipeline construction complete (expected life 50yrs) and in use by March 1980
June 1982	Dairy factory closed. Water Right cancelled in 1988
June 1983	County Council treatment plant construction complete
1984	County Council purchase pipeline
1986 – 1990	Katikati reticulation area increases
1991	Matakana Island claim lodged with Waitangi Tribunal
	Resource Management Act comes into force
Dec 1992	District Council forms sewerage disposal working party. First options report released Feb 1993
Feb 1993	District Council applies to renew discharge consent
March 1993	Working party recommends treatment upgrade and continuing use of pipeline
Oct 1994	Short term coastal permit granted requiring upgrade by Nov 1996 and long term planning for further upgrading
1995	Working party reconvenes to look at disposal options
	Proposed Regional Coastal Environment Plan notified
	Ngai Te Rangi Iwi Management Plan developed
June 1996	Working party recommends lagoons, wetlands, UV and pipeline for wastewater treatment
June 1996	District Council lodges consent renewal to cover to Sept 1998 as cannot achieve upgrade by Nov 1996

Dec 1996	District Council applies for resource consent and designation for Prospect Drive site
Nov 1998	Environment Court grants consent for discharge via the pipeline off Matakana Island. Conditions require investigations of alternative disposal options. Consent expires Nov 2016
1999	Treatment plant upgraded to 2 lagoons, 2 wetlands, UV system
2002	Regional Coastal Environment Plan made operative
Oct 2007	Options report (Duffill Watts) outlines 4 alternatives considered and concludes "no favorable alternative to the ocean outfall has been identified"
June 2008	Te Awanui/Tauranga Harbour – Iwi Management Plan was published by the three iwi of Tauranga Moana Ngai Te Rangi, Ngati Ranginui and Ngati Pukenga
2009	Plant upgrade report (g2e report) considers the issues with the plant and recommends refurbishment works
2010	Treatment plant upgrade with installation of 600m^2 of floating wetland rafts installed
2012	Disposal options report (URS) concludes "based on current information the currently consented discharge to the Pacific Ocean remains the preferred option"
	Western Bay of Plenty District Plan operative (June), excluding Matakana Island
	Matakana and Rangiwaea Islands Hapū Management Plan released
Feb 2013	Further upgrade to treatment plant scoped (g2e report) including full refurbishment of the wetlands
June 2014	Replacement Regional Coastal Environment Plan notified
June 2015	Environment Court decision on Matakana Island Plan Change.
	Treatment Plant upgrade to improve the ponds, a new flow control system and modification to the wetland
May 2016	Resource consents required to be lodged for Katikati wastewater discharge (required 6 months prior to expiry)
Nov 2016	Resource consents for existing ocean outfall discharge expire

1960

1960s
1964 Dairy Co applies for a temporary permit for an outfall & discharge

1965 Dairy Co full permit granted until May 1979

1965/66 County Council consider need to reticulate sewerage for Katikati township

1970

1971-75
Tauranga Harbour water quality classifications set and then changed

1972
County Council applied to use land to build oxidation ponds and an outfall to the harbour. Hearing cancelled June 1973.

1974
Regional water Board pushes for removal of all discharges from the harbor

October 1974
County Council present revised proposal for pipeline to Matakana Island and land

February 1977
Dairy Co apply for an ocean outfall with peak discharge of 25000m3/d

July 1977
- Dairy Co application granted
- Invitation to County Council to use pipeline

September 1977
County Council applies to the Water Board to discharge 1000m3/d using the Dairy Co pipeline. Water right granted Dec 1977, to expire Sept 1993

1979
pipeline construction complete (expected life 50yrs) and in use by March 1980

1980

1982
Dairy factory closed. Water Right cancelled in 1988

1983
County Council treatment plant construction complete

1984
County Council purchase pipeline

1986-1990
Katikati reticulation area increases

1990

1991
Matakana Island claim lodged with Waitangi Tribunal
Resource Management Act comes into force

1992
District Council forms sewerage disposal working party. First options report released Feb 1993

February 1993
District Council applies to renew discharge consent

March 1993
Working party recommends treatment upgrade and continuing use of pipeline

1994
Short term coastal permit granted requiring upgrade by Nov 1996 and long term planning for further upgrading

1995
Working party reconvenes to look at disposal options

Proposed Regional Coastal Environment Plan notified

Ngai Te Rangi Iwi Management Plan developed

June 1996
Working party recommends lagoons, wetlands, UV and pipeline for wastewater treatment. Council lodges consent renewal to cover to Sept 1998 as cannot achieve upgrade by Nov 1996

December 1996
District Council applies for resource consent and designation for Prospect Drive site

2000

1998
Environment Court grants consent for discharge via the pipeline off Matakana Island. Conditions require investigations of alternative disposal options. Consent expires Nov 2016

1999
Treatment plant upgraded to 2 lagoons, 2 wetlands, UV system

2002
Regional Coastal Environment Plan made operative

2007
Options report (Duffill Watts) outlines 4 alternatives considered and concludes "no favorable alternative to the ocean outfall has been identified"

2008
Te Awanui/Tauranga Harbour – Iwi Management Plan was published by the three iwi of Tauranga Moana Ngai Te Rangi, Ngati Ranginui and Ngati Pukenga

2009
Plant upgrade report (g2e report) considers the issues with the plant and recommends refurbishment works

2010

2010
Treatment plant upgrade with installation of 600m² of floating wetland rafts installed

2012
Disposal options report (URS) concludes "based on current information the currently consented discharge to the Pacific Ocean remains the preferred option"

Western Bay of Plenty District Plan operative (June), excluding Matakana Island

Matakana and Rangiwaea Islands Hapū Management Plan released

2013
Further upgrade to treatment plant scoped (g2e report) including full refurbishment of the wetlands

2014
Replacement Regional Coastal Environment Plan notified

2015
Environment Court decision on Matakana Island Plan Change.

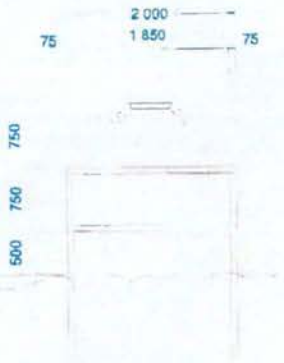
Treatment Plant upgrade to improve the ponds, a new flow control system and modification to the wetland.

2020

May 2016
Resource consents required to be lodged for Katikati wastewater discharge (required 6 months prior to expiry)

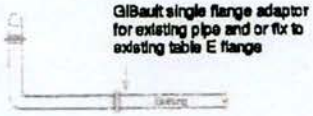
November 2016
Resource consents for existing ocean outfall discharge expire

Appendix 4 – Diffuser Concept Design

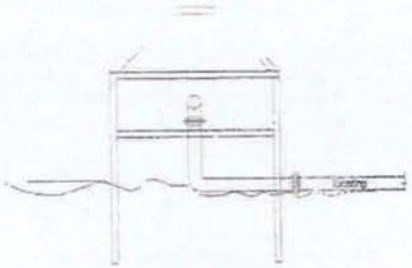


Existing Protection Frame Elevation

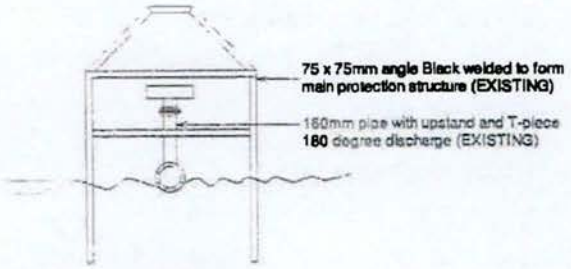
Existing Diffuser Elevation



Existing Diffuser Elevation



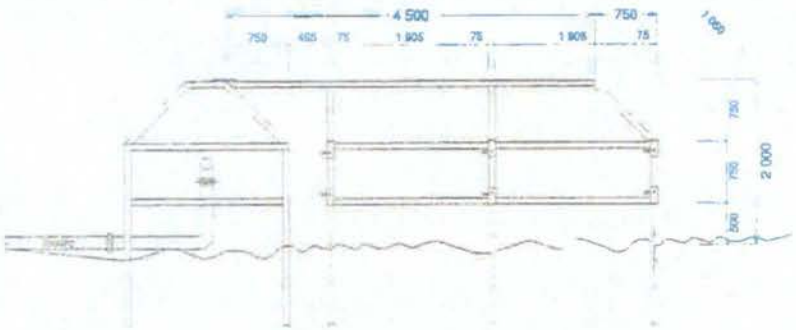
Existing structure elevation



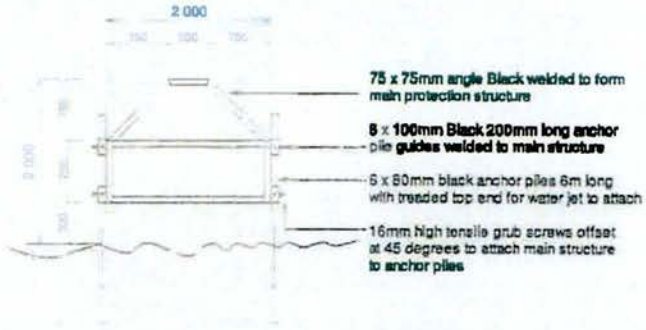
Existing structure elevation

6/20/2014	1	Notes: All dimensions to be confirmed on-site before any construction of the above takes place	Job Title: Katikati Outfall Diffuser Replacement	Drawn: Martin Design: Brendon Scale: 1:50 For: WBOPDC

GREENFIELD DIVING SERVICES

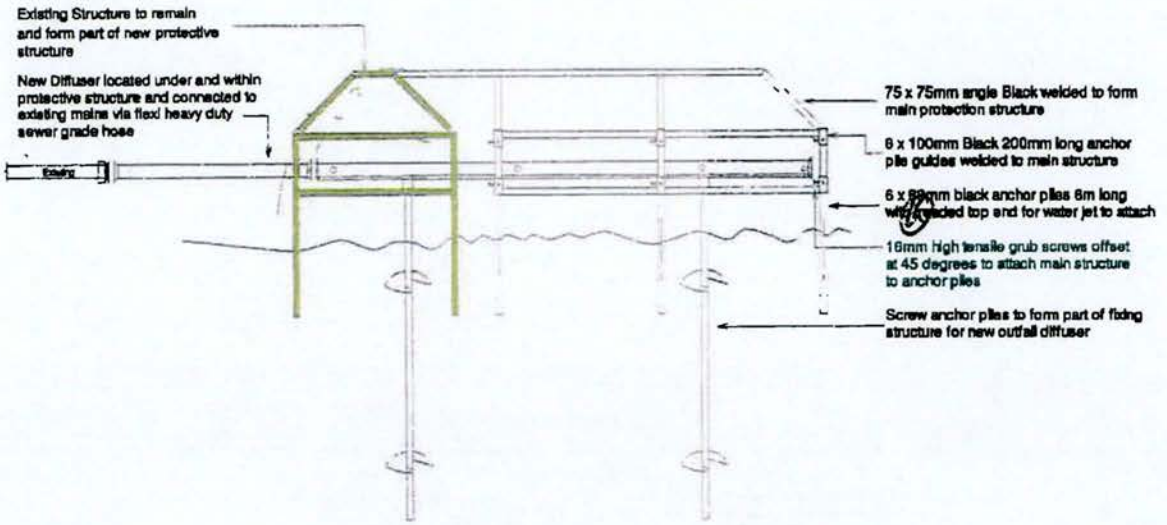


Existing structure with new protection structure connected elevation



New protection structure elevation

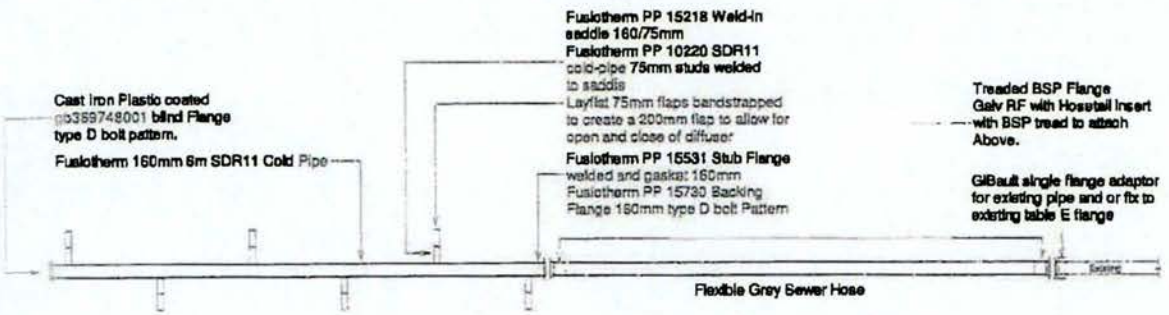
6/20/2014	2	Notes: All dimensions to be confirmed on-site before any construction of the above takes place	Job Title: Katikati Outfall Defuser Replacement	Drawn: Martin Design: Brendon Scale: 1:50 For: WBOPDC	GREENFIELD TIMBER SERVICES



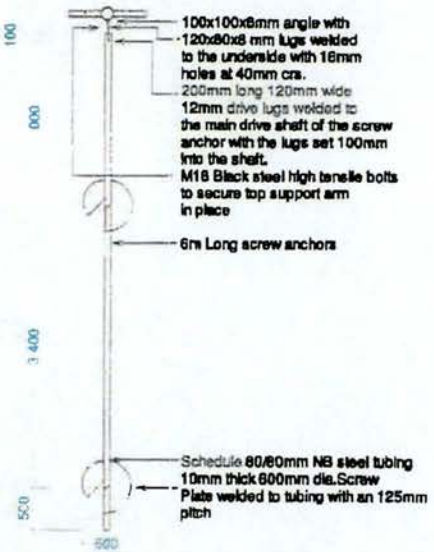
New protection frame connected to existing with new diffuser end installed
elevation

6/20/2014	3	Notes: All dimensions to be confirmed on-site before any construction of the above takes place	Job Title: Katikati Outfall Diffuser Replacement	Drawn: Martin Design: Brendon Scale: 1:50 For: WBOPDC

GREENFIELD DIVING SERVICES



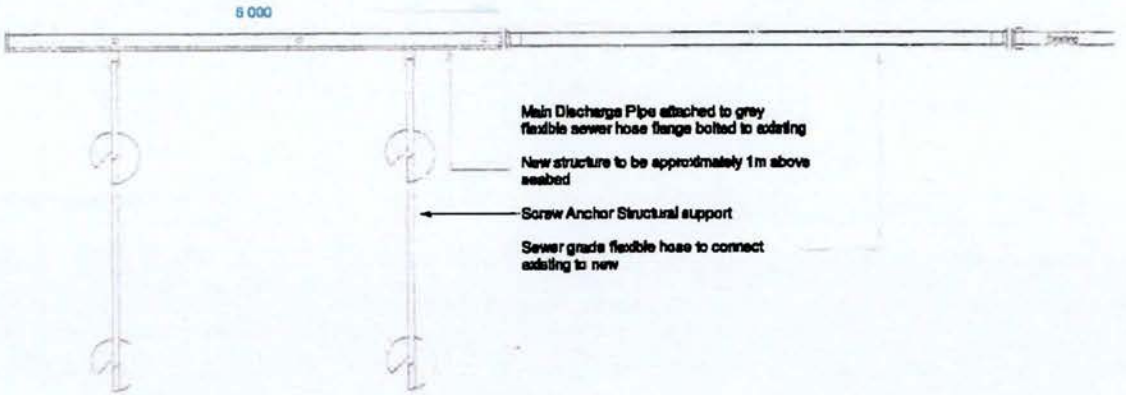
PLAN VIEW



SECTION

8/20/2014	4	Notes: All dimensions to be confirmed on-site before any construction of the above takes place	Job Title: Katikati Outfall Diffuser Replacement	Drawn: Martin Design: Brendon Scale: 1:50 For: WBOPDC

GREENFIELD DIVING SERVICES



ELEVATION

6/20/2014

5

Notes:

All dimensions to be confirmed on-site before any construction of the above takes place

Job Title:

Katikati Outfall Diffuser Replacement

Drawn: Martin

Design: Brendon

Scale: 1:50

For: WBOPDC

GREENFIELD DIVING SERVICES

Appendix 5 – Consultation Information

AGENDA
Katikati Treatment Plant Resource Consent Renewal
Meeting with Steering Group

Held at: **Barkes Corner Offices – Athenree Room**

Time: 10am on 29 June 2015

Attendees:

Apologies:

Minutes distribution List: as above;

ITEMS TO BE DISCUSSED

1. **Project background – review of previous meeting**
2. **Structure of steering group meetings**
3. **Koha and funding policy**
4. **Proposed program**
5. **Cultural Impact Assessment**
6. **Independent monitoring report of outfall pipeline**
7. **Any other business**

Meeting closed at _____pm

Minutes
Katikati Wastewater Treatment Plant Resource Consent Renewal
Meeting with Steering Group

Held at: Katikati WWTP Site Visit, Katikati Council Office

Time: 9.00am on 17th July 2015

Attendees:

Staff – Coral-Lee Ertel, Marc Fauvel, Chris Nepia, Petera Tapsell, Adrian Webb, Chris Gledhill, Jim Mclean, Peter Watson
Opus – Stephanie Brown

Hapu Representatives
Kalani K Tarawa (Ngai Tamawhariua), Te Uta Rolleston (Ngai Tamawhariua), Jason Murray (Te Ngare), Nessie Kuka (Ngai Tuwhiwhia), Brendon Taingahue/Ngaraima Taingahue (Te Whanau a Tauwhao/Tauwhao Te Ngare Trust), Christine (Taiawa) Kuka (Ngati Tauaiti)

Apologies:

Robbie Enoka Rolleston (Ngai Tamawhariua)

ITEMS DISCUSSED;

Site Visit
Site visit around Katikati Wastewater Treatment Plant was conducted by WBOPDC operations staff (Adrian Webb, Jim Mclean, Chris Gledhill). The tour group followed the treatment process from the wastewater arriving at the screening station to the UV.

During the visit to each part of the treatment process a sample of wastewater was collected.

A number of upgrades are currently underway at the Katikati Treatment Plant. These were explained onsite include the installation of the floating wetlands.

Opus Update
Stephanie provided an update on the work currently being undertaken by Opus.

Stephanie also gave an overview of the treatment plant timeline detailing the history of the ocean outfall and the wastewater scheme at Katikati. It was requested that upgrades to the plant be included in the timeline. It was also discussed if further detail of the historical conflict relating to the pipeline could be included on the timeline. Steph suggested that any extra dates or information people would like to include should be sent through for inclusion.

Action;
- Stephanie - Update timeline to include upgrades to the treatment plant.
- Hapu Representatives - Provide any extra information relating to the history of the ocean outfall and the wastewater scheme to Stephanie for inclusion on the timeline.

Next three months

Opus is currently developing the water quality assessment methodology including outfall sampling. It was agreed that Jason will work with Steph to develop this methodology.

Action; Steph/Jason – Develop water quality assessment methodology.

An assessment for alternative disposal options will be undertaken. The steering group will be included in this assessment. Steph will work to develop a methodology for assessing the options and present to the group at the next meeting. A number of alternative options were discussed including land disposal and unique solution eg eel farm or a Joint venture.

Actions;

- Steph – Develop methodology for assessing alternative options
- Coral-Lee – Develop a plan showing the wider Katikati area for assessing disposal options.

Historical treatment plant performance (sampling information) will be presented to the steering group at the next meeting. The sampling information will include 1 year in detail and the 5 year trends. It was also requested that council demonstrate how 'pure' the discharge is. Coral-Lee suggested we could demonstrate the % reduction of contaminants in the water as it goes through the treatment process.

Action; Coral-Lee – Collate historical sampling information.

It was agreed there would be one Cultural Impact Assessment undertaken by Hapu representatives.

Action; Hapu Representatives – Agree scope and authors for CIA and present at next meeting.

Other Business

Further discussion was held on;

- Installation of the floating wetlands. Jason requested information on the results of the floating wetland trial undertaken by Council in 2012.

  Action; Coral-Lee - Provide results of floating wetland trial to Jason

- Christine requested information on the 1998 Environment Court Decisions. Stephanie will investigate

  Action; Stephanie – Investigate previous resource consent application and provide information on decisions to Christine.

- It was noted that warning signs are located at the outlet of the pipeline. It is unclear if these are related to the wastewater discharge, Rene or Algae bloom in the harbour. Follow up required with Regional Council

  Action; Kelvin – Follow up with Regional Council on the requirement for the signs.

- The condition of the pipeline. Kelvin explained the condition of the pipeline through the harbour was unknown and would like to further investigate. A map will be produced and WBOPDC will work with hapu reps to determine a suitable location to dig up and asses the pipeline.

  Actions; Coral-Lee – Develop plan showing location of the pipeline through the harbour for next meeting.
  Steph – Provide details of the Tech report undertaken on the pipeline condition.

- Discussions was held around the importance of including Te Rereatukahia in the steering group. It was agreed that Te Rereatukahia will be included in all future discussions and a follow up invitation will be sent to join the steering group.

  Action; Chris N. – Follow up with Te Rereatukahia representatives for inclusion on the steering group.

- $258,000 set aside in 1989 – more than 3 hapu need to sign up to release the funds. Original opposition to the pipeline was not hapu based but community based though the Matakana Island Trust. (MIT). MIT was used than as the hapu were not established entities. MIT now defunct and not viewed with any confidence. (HUIA)

- Compensation (over and above the $250k) since pipeline used for wastewater based on the effect on Matakana who derive no benefit from the pipeline. It was agreed that this was outside the scope of the steering group and representatives would need to follow up with Miriam.

- Wastewater treatment options for Matakana Island
  - Action; Marc – Follow up with Regional Council on wastewater treatment options for Marae on the island.

Pane Pane

Peter provided an update on Pane Pane. Council have been considering options 6 weeks ago after Matakana Island Plan decision. Ownership needs to be resolved before the Reserves Management Plan process can be undertaken. Public works act can't be triggered as the land is not surplus to requirements. If there was no further use then it would be obliged to return to the original owners.

The Hapu representatives expressed concerns that the level of engagement on Pane Pane was very, very poor to date

Kelvin suggested the Hapu groups send a letter to His Worship the Mayor detailing their expectations.

Katikati Wastewater Treatment Plant Resource Consent Renewal
Minutes of Steering Group Meeting
24 August 2015

Held at:	Western Bay of Plenty District Council Offices, Barkes Corner
Attendees:	
Staff	Coral-Lee Ertel, Marc Fauvel, Chris Nepia, Petera Tapsell, Kelvin Hill, Tanya Coupe
Opus	Stephanie Brown
Hapu Representatives	Te Uta Rolleston (Ngai Tamawhariua), Jason Murray (Te Ngare), Nessie Kuka (Ngai Tuwhiwhia), Ngaraima Taingahue (Te Whanau a Tauwhao/Tauwhao Te Ngare Trust, Kalani K Tarawa (Ngai Tamawhariua)
Apologies:	Bob Rolleston (Ngai Tamawhariua), Hauata Palmer, Riria Murray, Brendon Taingahue), Christine (Taiawa) Kuka (Ngati Tauaiti),

ITEMS DISCUSSED

1. Update from Opus

   - Stephanie will re-issue timeline to Steering Group after input from Hapu representatives has been included.

2. Minutes from Last Meeting

   - Stephanie provided hard copy of 1998 Environment Court decision – will email copy to Steering Group.
   - Copy of Hearing Commissioners decision from previous resource consent application given to Ngaraima and Nessie.
   - Warnings signs located at outlet of pipeline – Kelvin discussed with BOPRC, it is believed they are related to algae bloom.
   - Condition of the Pipeline – plan showing location of the pipeline shown. Stephanie has copy of 2012 URS pipeline report available, which showed pipe capacity has been lost over time, possibly due to slime build up. Kelvin advised the line has been cleaned (pill test) and pressure tests were undertaken to monitor condition. Sample testing of the pipe material has concluded that the life expectancy of the pipe is until approximately 2035.
   - Discussion held on $258,000 set aside in 1989 – Hapu will hold meetings to decide what direction to take. There is no deadline on settling.

Actions

- Coral-Lee will email Steering Group prior to next meeting with historical treatment plant performance (sampling information) which includes 1 year in detail and the 5 year trends.
- Coral-Lee to provide results of floating wetland trial to Jason by next meeting. Opus to provide other examples of trials.
- Chris to set up separate meeting with Te Rereatukahia representatives.

- Wastewater treatment options for Matakana Island – Marc following up with BOPRC on options for the Marae. Marc will also follow up on test case costs ($80k).

3. Alternative Options Assessment

- Plan presented showing the wider Katikati area for assessing disposal options.
- Steph provided methodology for assessing alternative options for consideration of the Steering Group.
- Some examples of different options were distributed by Coral-Lee to the Steering Group.
- Generic categories were considered and the following was agreed:
    - Category 1 alternatives for wastewater management – confirmed by the group that the reticulated network in Katikati would remain.
    - Category 2 alternatives for producing less wastewater – Council to provide a list of what they are currently doing to the next meeting and to explain infiltration management including illegal connections.
    - Category 3 alternatives for wastewater treatment locations and processes – agreed that the primary focus for the Steering Group is to look at alternative options in Category 4.
    - Category 4 – alternatives for treated wastewater disposal, discharge and beneficial re-use – goals of the Steering Group to be established at next meeting.

Actions

- Opus to provide criteria process to Steering Group.
- Hapu to provide their criteria to Stephanie i.e. cultural / spiritual criteria to be included.
- Stephanie to provide matrix on scoring (rate against criteria).
- Stephanie provided previous alternative investigations to the group – Steering Group to consider what, if any, of these may be used in reviewing the alternative options.
- Set goals at next meeting – Steering Group.

4. Pipeline Inspection in Harbour

- A section of the pipe (with join) was shown. Stephanie will look through old Ministry of Works records for original photos of the pipeline.
- Discussion held on area to test the joins on the pipeline. It was agreed that the cultural significance was too great to test from Te Awanui Channel to Matakana Island.

5. Water Quality Assessment Methodology

- Stephanie and Jason met to develop the methodology. Updates to be included in the draft. Will go to BOPRC for agreement on methodology. Next version will be issued week of 31 August.
- Interpretation of data needs refining so you can see growth/decline of species population over time.
- Looking at sites to implement tests on tuatua beds for baseline.

6. Cultural Impact Assessment

- Hapu representatives will meet to agree scope and authors for CIA. Will email to Steering Group (appreciate if this could be achieved in the next two weeks).

7. Three Month Focus – agreed that the focus of the next three months would be to look at alternative options, visit to Matakana Island, potential visits to other sites with existing technology.

8. Next Meetings

- 21 September 2015 (venue to be confirmed)
- 19 October 2015 (Matakana Island visit – Hapu to confirm date and location)
- 23 November 2015
- 14 December 2015

Katikati Wastewater Treatment Plant Resource Consent Renewal
Minutes of Steering Group Meeting
28 September 2015

Held at:	Western Bay of Plenty District Council Offices, Barkes Corner
Attendees:	
Staff	Coral-Lee Ertel, Marc Fauvel, Chris Nepia, Petera Tapsell, Kelvin Hill
Opus	Stephanie Brown
Hapu Representatives	Te Uta Rolleston (Ngai Tamawhariua), Ngaraima Taingahue (Te Whanau a Tauwhao/Tauwhao Te Ngare Trust,
Apologies:	Bob Rolleston (Ngai Tamawhariua), Hauata Palmer, Riria Murray, Brendon Taingahue), Christine (Taiawa) Kuka (Ngati Tauaiti), Jason Murray (Te Ngare), Nessie Kuka (Ngai Tuwhiwhia), Kalani K Tarawa (Ngai Tamawhariua), Tanya Coupe

ITEMS DISCUSSED

9. Update from Opus

   - Stephanie will re-issue timeline to Steering Group after input from Hapu representatives has been included.

10. Minutes from Last Meeting

    - Stephanie provided hard copy of 1998 Environment Court decision – will email copy to Steering Group.
    - Copy of Hearing Commissioners decision from previous resource consent application given to Ngaraima and Nessie.
    - Warnings signs located at outlet of pipeline – Kelvin discussed with BOPRC, it is believed they are related to algae bloom.
    - Condition of the Pipeline – plan showing location of the pipeline shown. Stephanie has copy of 2012 URS pipeline report available, which showed pipe capacity has been lost over time, possibly due to slime build up. Kelvin advised the line has been cleaned (pill test) and pressure tests were undertaken to monitor condition. Sample testing of the pipe material has concluded that the life expectancy of the pipe is until approximately 2035.
    - Discussion held on $258,000 set aside in 1989 – Hapu will hold meetings to decide what direction to take. There is no deadline on settling.

Actions

- Coral-Lee will email Steering Group prior to next meeting with historical treatment plant performance (sampling information) which includes 1 year in detail and the 5 year trends. Will be sent out this week, will include explanation of the Te Puke problems.
- Coral-Lee to provide results of floating wetland trial to Jason by next meeting. Opus to provide other examples of trials.
- Chris to set up separate meeting with Te Rereatukahia representatives.

- Wastewater treatment options for Matakana Island – Marc following up with BOPRC on options for the Marae. Regional Council paid for consultants to assess upgrades. Marc will follow up with Sam Weiss.

11. Alternative Options Assessment

- Plan presented showing the wider Katikati area for assessing disposal options.
- Steph provided methodology for assessing alternative options for consideration of the Steering Group.
- Some examples of different options were distributed by Coral-Lee to the Steering Group.
- Generic categories were considered and the following was agreed:
    - Category 1 alternatives for wastewater management – confirmed by the group that the reticulated network in Katikati would remain.
    - Category 2 alternatives for producing less wastewater – Council to provide a list of what they are currently doing to the next meeting and to explain infiltration management including illegal connections.
    - Category 3 alternatives for wastewater treatment locations and processes – agreed that the primary focus for the Steering Group is to look at alternative options in Category 4.
    - Category 4 – alternatives for treated wastewater disposal, discharge and beneficial re-use – goals of the Steering Group to be established at next meeting.

Actions

- Opus to provide criteria process to Steering Group.
- Hapu to provide their criteria to Stephanie i.e. cultural / spiritual criteria to be included.
- Stephanie to provide matrix on scoring (rate against criteria).
- Stephanie provided previous alternative investigations to the group – Steering Group to consider what, if any, of these may be used in reviewing the alternative options.
- Set goals at next meeting – Steering Group.
- Need to engage with wider Matakana Island community (presentation on island).
- Steph presented an Options Assessment Process including some preliminary assessment criteria.
- Options Assessment Process to be emailed to all hapu representatives.

12. Pipeline Inspection in Harbour

- A section of the pipe (with join) was shown. Stephanie will look through old Ministry of Works records for original photos of the pipeline.
- Discussion held on area to test the joins on the pipeline. It was agreed that the cultural significance was too great to test from Te Awanui Channel to Matakana Island.

13. Water Quality Assessment Methodology

- Stephanie and Jason met to develop the methodology. Updates to be included in the draft.
- Currently sitting with BORPC for review.
- Requesting budget to engage independent scientist to undertake assessment. Scope and send to Kelvin (end October). Survey will be undertaken in second week of November.

14. Cultural Impact Assessment

- Scope for CIA has been sent through.
- Steph to print and send through hard copies of all reports (6 copies). Send to PO Box 13191 – 2, Matakana Island Counter Delivery, Tauranga 3141.

- Need to define if it will sit under one contract or 5 contracts (for each hapu).
- Potential issue with timing of CIA due to ecology assessment not being undertaken until November.
- Will be a collective CIA.

15. Three Month Focus – agreed that the focus of the next three months would be to look at alternative options, visit to Matakana Island, potential visits to other sites with existing technology.

16. Next Meetings

- 19 October 2015 (Matakana Island visit – Hapu to confirm date and location). Need to check with Nessie to make sure marae is available.
- 23 November 2015
- 14 December 2015

Katikati Wastewater Treatment Plant Resource Consent Renewal
Minutes of Steering Group Meeting
6 November 2015

Held:	Matakana Island
Attendees:	
Staff	Coral-Lee Ertel, Marc Fauvel, Chris Nepia, Petera Tapsell, Kelvin Hill, Tanya Coupe
Opus	Stephanie Brown
Hapu Representatives	Jason Murray (Te Ngare), Nessie Kuka (Ngai Tuwhiwhia), Ngaraima Taingahue (Te Whanau a Tauwhao/Tauwhao Te Ngare Trust, Brendon Taingahue
Apologies:	Bob Rolleston (Ngai Tamawhariua), Hauata Palmer, Riria Murray, Christine (Taiawa) Kuka (Ngati Tauaiti), Kalani K Tarawa (Ngai Tamawhariua), Te Uta Rolleston (Ngai Tamawhariua)

ITEMS DISCUSSED

1. **Update from Opus**

   - Stephanie provided written update on the field survey and treatment plant review.

   Actions

   - Stephanie to send through update of sites (18 total) to Jason.
   - Petera and Chris to talk to Tiki about the boat trip.

2. **Minutes from Last Meeting**

   - Chris set up a meeting with Te Rereatukahia representatives. Concern was raised that important work not be stalled as Te Rereatukahia need to get up to speed.
   - Further grab sample testing is to be undertaken on Matakana Island outfall side.

Actions

- Coral-Lee will email Steering Group prior to next meeting with historical treatment plant performance (sampling information) which includes 1 year in detail and the 5 year trends. Will be sent out this week, will include explanation of the Te Puke problems.
- Coral-Lee to provide results of floating wetland trial to Jason by next meeting. Opus to provide other examples of trials.
- Wastewater treatment options for Matakana Island – Marc followed up with BOPRC on options for the Marae. Marc will get a copy of the proposal and follow up with Sam Weiss again. Funding options need to be put up for consideration.
- Stephanie will provide examples of Marae that have investigated disposal options.

3. Independent Science Proposal and Upcoming Testing

Proposal given to Jason (ongoing monitoring) for what they're asking for in the consent or duration of lifetime of the pipe.

4. Alternative Options Assessment

- Kelvin discussed the options, criteria and scoring process.
- Meeting 14 December to work through the options with a facilitator. Information packs would be provided prior to the meeting.

Actions

- Opus to provide criteria process to Steering Group.
- Information packs to be provided to team prior to the meeting (will include scoring scale i.e. what does a 1 look like, what does a 5 look like).
- Need to engage with wider Matakana Island community once matrix completed (presentation on island).

5. Water Quality Assessment Methodology

- Stephanie and Jason met to develop the methodology. Updates to be included in the draft.
- Currently sitting with BORPC for review.
- Requesting budget to engage independent scientist to undertake assessment. Scope and send to Kelvin (end October). Survey will be undertaken in second week of November.

6. Cultural Impact Assessment

- Scope for CIA has been sent through and is being considered.
- It will sit under one contract.

7. Three Month Focus

Agreed that the focus of the next three months would be to look at alternative options. Community meeting to be held in February 2016 at Matakana Island.

- Meetings to be set for end January (pre-meeting before community meeting) and February community meeting (will be either 21 or 28 Feb).
- CIA to be complete end Feb.
- March – draft to be available for comment

8. Next Meetings

- 23 November 2015 – to be cancelled
- 14 December 2015 – Alternative Assessment Workshop

Katikati Wastewater Treatment Plant Resource Consent Renewal
Minutes of Steering Group Meeting
2 February 2016

Held:	Western Bay of Plenty District Council Offices
Attendees:	
Staff	Coral-Lee Ertel, Marc Fauvel, Chris Nepia, Petera Tapsell, Kelvin Hill
Opus	Stephanie Brown
Hapu Representatives	Jason Murray (Te Ngare), Nessie Kuka (Ngai Tuwhiwhia), Ngaraima Taingahue, Brendon Taingahue (Te Whanau a Tauwhao/Tauwhao Te Ngare Trust), Te Uta Rolleston, Kalani K Tarawa (Ngai Tamawhariua)
Apologies:	Hauata Palmer

ITEMS DISCUSSED

17. Update from Opus

- Stephanie provided update on the resource consent application and the wastewater treatment plant capacity assessment.

18. Minutes from Last Meeting

Actions

- Coral-Lee will email Steering Group with historical treatment plant performance (sampling information)
- Coral-Lee to provide results of floating wetland trial to Jason by next meeting. Opus to provide other examples of trials.
- Steph to provide Opus assessment of plants historical performance to Jason.
- Wastewater treatment options for Matakana Island – Marc followed up with BOPRC on options for the Marae. Marc will get a copy of the proposal and follow up with Sam Weiss again. Funding options need to be put up for consideration.
- Stephanie will re-send examples of Marae that have investigated disposal options.
- Kelvin to send letter/contract for services to integral environmental.

19. Independent Science Proposal and Upcoming Testing

Formal agreement to be signed with Integral Environmental for the ongoing outfall monitoring and the development of the monitoring program.

20. Alternative Options Assessment

- Meeting 14 December to work through the options with a facilitator. Information packs would be provided prior to the meeting.

Actions

- Alternative options assessment implementation plan conditions to be developed for the consent.

21. Resource Consent Conditions

- Steph provided an overview on the draft consent conditions.

Actions

- Draft conditions to be finalised and distributed.

22. Cultural Impact Assessment

- CIA agreement to be finalised
- Draft CIA required by end of first week of March (4 March 2016)

23. Three Month Focus

The focus of the next three months would be to look at Consent conditions. Community meeting to be held in February 2016 at Matakana Island.

- Meetings to be set for end January (pre-meeting before community meeting) and February community meeting (will be either 21 or 28 Feb).
- CIA to be complete end Feb.
- March – draft to be available for comment

24. Key Dates

- 13 February 2016 – Community open day
- 28 February 2016 – Matakana Island community update
- 4 March – Draft CIA required
- Mid March – Draft application available
- 26 April – Application lodged with Regional Council

25. Next Meeting

- 8 March 2016

AGENDA
Katikati Wastewater Treatment Plant Resource Consent Renewal

Held at: Western Bay of Plenty District Council Office's (Barkes Corner)

Time: 12.00pm on 14 March 2016

Attendees:

Apologies:

Minutes distribution List: as above;

Opening Karakia

ITEMS TO BE DISCUSSED

1. Minutes from last meeting
2. Update from Opus
3. Update on monitoring program
4. Draft CIA update
5. Next Meeting
6. Any other business

Closing Karakia

Meeting closed at _____pm

Katikati Wastewater Treatment Plant Resource Consent Renewal
Minutes of Steering Group Meeting
29 March 2016

Held:	Western Bay of Plenty District Council Offices
Attendees:	
Staff	Chris Nepia, Petera Tapsell, Kelvin Hill
Opus	Stephanie Brown
Hapu Representatives	Jason Murray (Te Ngare), Nessie Kuka (Ngai Tuwhiwhia), Ngaraima Taingahue, (Te Whanau a Tauwhao/Tauwhao Te Ngare Trust), Te Uta Rolleston, Kalani K Tarawa (Ngai Tamawhariua)
Apologies:	Hauata Palmer

ITEMS DISCUSSED

26. Update from Opus

- Stephanie provided update on the resource consent application and the wastewater treatment plant capacity assessment.
- Open day update – 14 April

27. CIA

- Short form agreement given to members
- First draft by 31 March not possible but will have it by 8 April
- Need to collate feedback from hapū members

28. Ongoing monitoring/consent conditions

- Kelvin needs to send a final document to Kenneth;
- Kenneth wants something formal agreeing to the 3 year cycle of monitoring, this could become an issue if we do not get a consent longer than 5 years;
- When does Council need to know the term of the consent that has been agreed to

29. Information Pack

- Stephanie spoke to the information that she provided by email;
- Volume capacity is being monitored by Council and forecast against population benchmarks 50 years into the future;
- Is there appetite for Council to connect Te Rereatukahia to the Wastewater scheme – discussion entered into regarding the work Council is doing for deprived communities which aims to provides communities such as Te Rereatukahia with appropriate infrastructure services.

- Mid March – Draft application available
- 26 April – Application lodged with Regional Council

30. Next Meeting

- 8 March 2016

Katikati Wastewater Treatment Plant Resource Consent Renewal
Minutes of Steering Group Meeting
14 April 2016

Held:	Western Bay of Plenty District Council Offices
Attendees:	
Staff	Coral-Lee Ertel, Chris Nepia, Petera Tapsell, Kelvin Hill
Opus	Stephanie Brown
Hapu Representatives	Nessie Kuka (Ngai Tuwhiwhia), Kalani K Tarawa (Ngai Tamawhariua), Ngaraima Taingahue (Te Whanau a Tauwhao/Tauwhao Te Ngare Trust
Apologies:	Jason Murray (Te Ngare), Te Uta Rolleston (Ngai Tamawhariua)

ITEMS DISCUSSED

1. **Minutes from last meeting**

- Agreement set up with Kenneth for ongoing monitoring.
- Looking at options for current monitoring to feed into outfall monitoring. Working with Waikato University and NIWA
- Council will be installing a buoy at outfall of pipeline next month. Discussions with Regional Council has identified a resource consent is required for a permanent structure. Council will add the marker buoy to list of consent applications that will be lodged with Regional Council in May.

2. **Feedback from Draft AEE**

- Steph ran through the draft AEE. Comments are as follows;
    - Recommend extending the time frame for disturbance to the CMA to allow investigations of pipeline to allow Councils ongoing monitoring of the pipeline condition.
    - Would like to see the inclusion of information around the Matakana Island community in the AEE. Kelvin suggested this be included in the CIA, which will then be used in the AEE application.
    - 3.5.1 Performance of the treatment plant - Would like to see the graph timeline extended to Dec 2016.

- Further feedback on draft AEE will come from the Hapu through the CIA and future meetings.

3. **Draft CIA**

- Still working on draft CIA. Will be available next week.
- Steph to sit with Jason in an informal hui to discuss the draft CIA. Tentative date is 22nd April.

4. Update on what's happened from last meeting

- Meeting held with DOC and Public Health

5. Where to from here

- Consent lodgement with Regional Council will be pushed out till the first week in May.
- Final CIA will not be complete by consent lodgement. Potential to lodge with draft CIA as a confidential status.
- We will set up a fortnightly email update to keep Hapu informed throughout the consenting process post lodgement.

6. Any more items

- Hui will be held between all Hapu reps once consent has been lodged with Regional Council.
- Alternative options – Steph provided an update on the alternative options process that will be implemented and the condition that has been included in the draft consent conditions. The WWAG (wastewater advisory group) will be set up earlier than stated in the draft conditions. Suggested the group be established within 2 months after the consent has been lodged.
- Steph requested an alternative name for the WWAG be established.
- Mayor will be meeting with ministers next month to discuss possibility of funding from central government to assist Maraes with Wastewater schemes.

7. Next meeting

Information meeting once draft CIA. Tentative date is **Friday 22 April**. Steph to contact Jason to confirm.

Meeting scheduled for **Tuesday 10 May**. This will be the final meeting prior to consent lodgement.

AGENDA
Katikati Wastewater Treatment Plant Resource Consent Renewal

Held at: **Western Bay of Plenty District Council Office's (Barkes Corner)**

Time: 10.00am on 10 May 2016

Attendees:

Apologies:

Minutes distribution List: as above;

Opening Karakia

ITEMS TO BE DISCUSSED

1. **Final CIA**
2. **Update on draft conditions**
3. **Monitoring August/May**
4. **Wastewater Advisory Group**
5. **Where to from here?**

Closing Karakia

Meeting closed at _____ **pm**

Stephanie Brown

Subject:	Katikati TP meeting with Te Rereatukahia
Location:	Katikati wastewater treatment plant
Start:	Tue 3/11/2015 3:30 p.m.
End:	Tue 3/11/2015 5:00 p.m.
Recurrence:	(none)
Meeting Status:	Accepted
Organizer:	Coral-Lee Ertel

Hi All

Just confirming this hui has been booked for the 3 November at 3.30. Please let me know if this time/date does not suit.

Regards,
Coral-Lee

Stephanie Brown

Subject: Katikati Wastewater Treatment Plant Resource Consent Renewal Application
Location: Te Puna Room

Start: Tue 26/01/2016 9:00 a.m.
End: Tue 26/01/2016 10:00 a.m.

Recurrence: (none)

Meeting Status: Accepted

Organizer: Chris Nepia
Resources: Te Puna Room

Kia ora everyone,

Just confirming the time for tomorrow's meeting being 9am here at our Barkes Corner Office, agenda as follows -

- Ocean outfall field work undertaken
- Consenting process and timeframes including discussion around consent term
- Cultural impact assessment
- CIA

Please let me know if you have any queries.

Ngâ mihi

Chris Nepia
Mâori Relationships and Engagement Advisor
Kaiârahi Whakapiri

P 07 571 8008 • **DD** 07 579 6623
Barkes Corner, Greerton, Tauranga
Private Bag 12803, Tauranga Mail Centre, Tauranga 3143
E chris.nepia@westernbay.govt.nz
www.westernbay.govt.nz

Katikati Wastewater Treatment Plant Resource Consent Renewal – Meeting with Mainland Hapu

Meeting Minutes
14 April 2016

Opening

The meeting of the Katikati Wastewater Treatment Plant Resource Consent Renewal – Meeting with Mainland Hapu was called to order at 0800 on 14 April 2016 in Utilities Meeting rrom by Kelvin Hill.

Present

Coral-Lee Ertel, Kelvin Hill, Petera Tapsell, Chris Nepia, Stephanie Brown, Tiki Bluegum, Kevin Ohiariki.

Approval of Agenda

The agenda was unanimously approved as distributed.

Open Issues

1. Feedback on the draft AEE
    a. There is a feeling the draft disregards Maori point of view and Maori perspective, and generally has the wrong direction.
    b. Definitions – Tangata Whenua, needs to be expanded to include Otawhiwhi and Tuapiro. It should also include the northern part of the harbor, to Matakana Island towards Matakana.
    c. Thoughts that considerations of alternatives is not included in draft AEEE or consent conditions. Would like to be involved in the decision making on the alternatives rather than being an advisory only.
    d. Do not think community representatives should be included in the WAGG.
    e. "Valuable discussion with Iwi through Hui" – needs to be expanded to include discussion with Iwi.
    f. Questions around future testing at plant. Monitoring to occur at UV fallout to test what is coming out of plant. Also sampling will be undertaking at outfall of pipeline with 3 year intensive sampling. To build a baseline of quality at the plant outfall. Also will be undertaking current studies of outfall.
2. Draft CIA
    a. Working on draft CIA. Will be available next week.

3. Marae Wastewater
    a. Application has been made to central government for funding to assist connection at Marae to Council Wastewater scheme.
4. Where to from here?
    a. Meeting to be held next week to run through the draft CIA, AEE, and conditions.

Post meeting note
Meeting set for 22nd September at 10:00 a.m. at Council office.

Application to be lodged with Regional Council on the 12th of May 2016.

Adjournment
Meeting was adjourned at 0930 by Kelvin Hill.

Appendix 6 - Relevant Objectives and Policies

NZ Coastal Policy Statement

3 December 2010

Objective/Policy	Assessment Summary
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.	The coastal water quality off Matakana Island is considered to be good. The Proposal will maintain the water quality. The new diffuser will result in more effective dispersal which will also constitute an improvement to the current discharge. There are no demonstrable adverse effects on ecology and habitat as a result of the discharge.
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; ... (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;	The Objective and Policy seeks to preserve the natural character of the coastal environment and to protect it from inappropriate use and development, as stated in Section 6(a) of the RMA. The structures required for the outfall are not conspicuous so do not affect the natural character.

(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; (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.	
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 heritage** 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) involve iwi authorities or hapū on behalf of tangata whenua in the preparation of regional policy statements, and plans, by undertaking effective consultation with tangata whenua; with such consultation to be early, meaningful, and as far as practicable in accordance with tikanga Māori; c) with the consent of tangata whenua and as far as practicable in accordance with tikanga Māori, incorporate mātauranga Māori 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, 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	A number of aspects of this policy can only be implemented by Councils, such as those aspects concerned with decision-making and the relationship between Councils and Tangata Whenua. Consultation with iwi has been undertaken by the applicant. CIAs have been commissioned that discuss the effects of the proposal on cultural values. Matakana and Rangiwaea Islands hapū have concluded that the mauri of the ocean waters surrounding the outfall has been "seriously compromised" since the pipeline was built and that this has largely been based *"on insufficient scientific testing, standards and methodologies that balance the worldly view of Hapu who utilize these kai resources as part of their extended pataka kai (Food cupboard)."* They have accepted the discharge can continue in accordance with the Proposal, provided WBOPDC seeks an alternative before 2035. They seek a comprehensive monitoring programme. They wish to be involved in data collection and in decision making. These matters have been included in the proposed conditions. The CIA from Northern Ngai te Rangi hapū states: "*Dumping sewage into the ocean*

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; and g) in consultation and collaboration with tangata whenua, working as far as practicable in accordance with tikanga Māori, and recognising that tangata whenua have the right to choose not to identify places or values of historic, cultural or spiritual significance or special value: i. recognise the importance of Māori cultural and heritage values through such methods as historic heritage, landscape and cultural impact assessments; and ii. provide for the identification, assessment, protection and management of areas or sites of significance or special value to Māori, including by historic analysis and archaeological survey and the development of methods such as alert layers and predictive methodologies for identifying areas of high potential for undiscovered Māori heritage, for example coastal pā or fishing villages.	*(and all other waterways) is abhorrent to Maori. It negatively affects the Mauri, Mana, Tapu, Ihi (excitement, power, charm, magnetism) and Wehi (awe, fear, dread) of the ocean. It also negatively affects our duty of care as kaitiaki and our cultural practices are eroded and damaged as a result."* They seek a 5 year consent term, and engagement in monitoring, and the process and decision making around the selection of an alternative to the ocean outfall within that timeframe. The proposed conditions require their involvement in monitoring and in the alternatives investigation process. While not all recommendations have been adopted, the proposal provides opportunities for the exercise of kaitiakitanga and the bringing of cultural understanding to the monitoring of natural resources and as such is not inconsistent with these provisions.
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.	Public access will not be affected.
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: • 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	The first part of the Policy relates to activities in the broader coastal environment and the second more specifically to the coastal marine area. Provision of a community wastewater scheme (ie. infrastructure) enables

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.	communities to provide for their wellbeing
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; ... (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; (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; ... (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; ... (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.	

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) requiring that stock are excluded from the coastal marine area, adjoining intertidal areas and other water bodies and riparian margins in the coastal environment, within a prescribed time frame; 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.	The monitoring results do not show significant adverse effects on the receiving environment.
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.	Regard has been had to 1(a) to (f). The discharge is treated with wetlands forming part of the WWTP. The site of the WWTP is fixed and it is not considered appropriate to require it be relocated given the significant investment in the site. WBOPDC has undertaken assessments of alternatives as required under its existing consent conditions. It has also proposed a detailed investigation process to be undertaken during the life of the Proposal. Alternative investigations to date have determined that the outfall is the best practicable option at this stage. The tangata whenua values are presented in the CIAs. The recommendations made have largely been adopted in the proposed conditions of consent with the exception of the consent term sought. The proposal, which includes as part of it the various conditions a comprehensive role for tangata

	whenua in the consents, is consistent with this policy.

Operative Regional Policy Statement

1 October 2014 (updated 3 June 2015)

Objective/Policy	Assessment Summary
Air Quality	
Objective 1 The adverse effects of odours, chemical emissions and particulates are avoided, remedied or mitigated so as to protect people and the environment. **Policy AQ 2A** Managing adverse effects from the discharge of odours, chemicals, and particulates Protect people's health and the amenity values of neighbouring areas from discharges of offensive and objectionable odours, chemical emissions and particulates.	Operation of the WWTP should not give rise to odour effects that are offensive or objectionable beyond the boundary.
Coastal Environment	
Objective 2: Preservation, restoration and, where appropriate, enhancement of the natural character and ecological functioning of the coastal environment **Policy CE 2B:** Managing adverse effects on natural character within the coastal environment Preserve the natural character of the coastal environment and protect it from inappropriate subdivision, use and development by including provisions in regional and district plans, and when making decisions on resource consents to; (a) Avoid adverse effects of activities on the attributes that comprise natural character in areas of the coastal environment with outstanding natural character as identified in the maps and tables in Appendix I and J; (b) Avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on the attributes comprising the natural character in all other areas of the coastal environment, recognising that areas identified in maps in Appendix I as having high or very high natural character can be especially sensitive to the adverse effects of inappropriate subdivision, use and development; and (c) Recognise that open coastal water in the region is of at least high natural character. **Policy CE 9B:** Safeguarding the life supporting capacity of coastal ecosystems Safeguard the life-supporting capacity of coastal and marine ecosystems by maintaining or enhancing: (a) Any area within the inter-tidal or sub-tidal zone that contains unique, rare, distinctive or representative marine	Matakana Island, Tauranga Harbour and open coastal waters are areas with high natural character. The natural character is not affected by the presence of the pipeline. The marine ecosystems will be maintained.

and avian species or habitats; (b) Areas used by marine mammals as breeding, feeding or haul-out sites; (c) Habitats in the coastal environment that are important during the vulnerable life stages of indigenous species or any life stage of species listed as threatened or at risk by the Department of Conservation; (d) Any areas that contain indigenous coastal ecosystems and habitats that are particularly vulnerable to modification – such as estuaries, lagoons, coastal wetlands, dunelands, rocky reef systems and salt marshes; (e) The integrity, functioning and resilience of physical and ecological processes; and (f) Promoting water quality in the coastal marine area that sustains healthy aquatic ecosystems.	
Objective 3: Equitable and sustainable allocation of public space within the coastal marine area. **Policy CE 11B:** Allocating public space within the coastal marine area For allocation of space within the coastal marine area activities shall demonstrate: (a) A functional or positional need to be located in, or adjacent to, the coastal marine area; (b) Efficient use of the natural resources within the coastal marine area; and In addition to Policies MN 2B, MN 3B, MN 5B, MN 6B and MN 8B consideration shall also be given to the effect of the activity in relation to: (c) Whether any benefit to the public of the proposed activity compensates for the loss of public open space; Multiple use of space and/or rationalisation of infrastructure; (d) Recreational use of the coastal marine area; (e) Ecological functioning and natural processes of the coastal marine area; (f) Compatibility with the natural features and landscapes, natural character and amenity values of the coastal environment; (g) Respect for Māori customary practices; and (h) Existing uses and constraints in the coastal marine area.	The pipeline is existing and as such has a need to be in the CMA.
Energy and Infrastructure	
Objective 6 Provide for the social, economic, cultural and environmental benefits of, and the use and development of nationally and regionally significant infrastructure and renewable energy. **Policy EI 4B**: Recognising the benefits from nationally and regionally significant infrastructure and the use and development of renewable energy Recognise and provide for the social, economic, cultural and environmental benefits of: (a) Nationally and regionally significant infrastructure, including: (i) The ability for people and goods to travel to, from and around the region efficiently;	Providing a wastewater scheme for the community provides a public health benefit and enables the community to provide for their wellbeing.

(ii) Maintaining public health and safety through the provision of essential services, supply of potable water and the collection and transfer of sewage; (iii) Maintaining access to energy so people can meet their energy needs; (iv) Maintaining access to telecommunication services so people can meet their communication needs; and (v) Maintaining reliable and resilient infrastructure for major industrial users and rural production activities to meet their needs to function effectively and efficiently. **Policy EI 5B:** Managing adverse effects of regionally significant infrastructure on matters of national importance (a) Give priority to ensuring development and/or upgrades to regionally significant infrastructure avoid adverse effects on natural and physical resources identified in Policy MN 1B as matters of national importance. (b) Where adverse effects on natural and physical resources identified in Policy MN 1B cannot practicably be avoided then these effects are to be appropriately remedied or mitigated, including through the use of environmental offsets.	
Pat 2.5: Integrated Resource Management	
Objective 10: Cumulative effects of existing and new activities are appropriately managed. **Objective 11:** An integrated approach to resource management issues is adopted by resource users and decision makers. **Policy IR 3B:** Adopting an Integrated Approach Adopt an integrated approach to resource management that: (a) Recognises the interconnected nature of natural and physical resources, including as they adjust to changes; (b) Recognises the multiple values of natural and physical resources; (c) Responds to the nature and values of the resource and the diversity of effects (including cumulative and reverse sensitivity effects) that can occur; (d) Seeks to maximise benefits by considering opportunities to align interventions (including regulatory and non regulatory) and/or to achieve multiple objectives; (e) Encourages developments, activities or land-use changes to: 1. Provide for the relationship between land use and water quality and quantity 2. Recognise the advantages and constraints of land use capability; 3. Provide for infrastructure; 4. benefit the economic wellbeing of communities (f) Takes a long term strategic approach which recognises the changing environment and changing resource use pressures and trends; (g) Applies consistent and best practice standards and processes to decision making; and	Integrated resource management refers to relationships between agencies, users and their values, legislation, policy statements, plans, resource consents, and other mechanisms, which enable the promotion of sustainable resource management. Use and enjoyment of resources is integral to kaitiakitanga and the relationship tangata whenua have with their resources. The values and effects of the Proposal have been considered. Conditions are proposed to address effects on the values identified.

(h) Recognises different community values and social needs; and regards these as positive effects. **Policy IR 5B:** Assessing cumulative effects Give regard to the cumulative effects of a proposed activity in contributing to: (a) Incremental degradation of values of sites identified as having high natural character (in accordance with Policies CE 2B and CE 8B); (b) Incremental degradation of matters of significance to Māori including cultural effects (in accordance with Policy IW 5B); (c) Incremental degradation of water quality from point source and non-point source discharges including urban stormwater; (d) Inefficient use of space associated with sprawling or sporadic new subdivision, use or development; (e) Incremental degradation of scenic values, amenity, open space, recreation and the general use and enjoyment by the public; (f) Adverse impacts on coastal processes, resource or values, biodiversity and ecological functioning; (g) The availability of freshwater resources; (h) Increased risk from natural hazards; (i) The loss of versatile land for rural production activities; (j) Effects on the function, efficiency and safety of infrastructure; and (k) Social and economic wellbeing.	
Objective 12: The timely exchange, consideration of and response to relevant information by all parties with an interest in the resolution of a resource management issue. **Policy IR 4B:** Using consultation in the identification and resolution of resource management issues Encourage the timely exchange, consideration of, and response to, relevant information by all parties with an interest in the resolution of a resource management issue by: (a) ... (c) Encouraging all parties undertaking resource use, development and protection activities to consult with others who may be affected. **Policy IW 3B:** Recognising the Treaty in the exercise of functions and powers under the Act Exercise the functions and powers of local authorities in a manner that: (a) Takes into account the principles of the Treaty of Waitangi; (b) Recognises that the principles of the Treaty will continue to evolve and be defined; (c) Promotes awareness and understanding of councils' obligations under the Act regarding the principles of the	Consultation with iwi and the community has been undertaken by the applicant. CIAs have been commissioned that discuss the effects of the proposal on cultural values. It is acknowledged that there are adverse cultural effects of discharging into water. WBOPDC has consulted with tangata whenua and proposed conditions that recognise and provide for kaitiakitanga, for example, through the proposed monitoring that includes cultural monitoring.

Treaty, tikanga Māori and kaupapa Māori, among council decision makers, staff and the community; (d) Recognises that tangata whenua, as indigenous peoples, have rights protected by the Treaty and that consequently the Act accords iwi a status distinct from that of interest groups and members of the public; and (e) Recognises the right of each iwi to define their own preferences for the sustainable management of natural and physical resources, where this is not inconsistent with the Act. **Policy IW 6B:** Encouraging tangata whenua to identify measures to avoid, remedy or mitigate adverse cultural effects Encourage tangata whenua to recommend appropriate measures to avoid, remedy or mitigate adverse environmental effects on cultural values, resources or sites, from the use and development activities as part of consultation for resource consent applications and in their own resource management plans.	
Iwi Resource Management / Matters of National Importance	
Objective 13: Kaitiakitanga is recognised and the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) are systematically taken into account in the practice of resource management. **Objective 15:** Water, land, coastal and geothermal resource management decisions have regard to iwi and hapū resource management planning documents. **Objective 17:** The mauri of water, land, air and geothermal resources is safeguarded and where it is degraded, where appropriate, it is enhanced over time **Objective 21:** Recognition of and provision for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga. **Policy IW 2B:** Recognising matters of significance to Māori Proposals which may affect the relationship of Māori and their culture and traditions must: (a) Recognise and provide for: (i) Traditional Māori uses and practices relating to natural and physical resources such as mahinga mātaitai, waahi tapu, papakāinga and taonga raranga; (ii) The role of tangata whenua as kaitiaki of the mauri of their resources; (iii) The mana whenua relationship of tangata whenua with, and their role as kaitiaki of, the mauri of natural resources; (iv) Sites of cultural significance identified in iwi and hapū resource management plans; and (b) Recognise that only tangata whenua can identify and evidentially substantiate their relationship and that of their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga. **Policy IW 3B:** Recognising the Treaty in the exercise of functions and powers under the Act Exercise the functions and powers of local authorities in a manner that: (a) Takes into account the principles of the Treaty of Waitangi;	The objective requires the recognition of kaitiakitanga and that the principles of Te Tiriti o Waitangi are taken into account in the practice of resource management. WBOPDC has consulted with tangata whenua and proposed conditions that recognise and provide for kaitiakitanga, for example, through the proposed monitoring that includes cultural monitoring. Objective 15 is for resource management decisions to have regard to iwi and hapū management plans. There are relevant management plans and these have been considered. Further, WBOPDC has commissioned specific cultural impact assessments in relation to the Proposal. Objective 17 seeks that the mauri of resources be safeguarded, and enhanced over time where it is degraded. Matakana and Rangiwaea Islands hapū have concluded that the mauri of the ocean waters surrounding the outfall has been "seriously compromised" since the pipeline was built and that this has largely been

(b) Recognises that the principles of the Treaty will continue to evolve and be defined; (c) Promotes awareness and understanding of councils' obligations under the Act regarding the principles of the Treaty, tikanga Māori and kaupapa Māori, among council decision makers, staff and the community; (d) Recognises that tangata whenua, as indigenous peoples, have rights protected by the Treaty and that consequently the Act accords iwi a status distinct from that of interest groups and members of the public; and (e) Recognises the right of each iwi to define their own preferences for the sustainable management of natural and physical resources, where this is not inconsistent with the Act. **Policy IW 4B:** Taking into account iwi and hapū resource management plans Ensure iwi and hapū resource management plans are taken into account in resource management decision making processes. **Policy IW 5B:** Adverse effects on matters of significance to Māori When considering proposals that may adversely affect any matter of significance to Māori recognise and provide for avoiding, remedying or mitigating adverse effects on: (a) The exercise of kaitiakitanga; (b) Mauri, particularly in relation to fresh, geothermal and coastal waters, land and air; (c) Mahinga kai and areas of natural resources used for customary purposes; (d) Places sites and areas with significant spiritual or cultural historic heritage value to tangata whenua; and (e) Existing and zoned marae or papakāinga land. **Policy IW 6B:** Encouraging tangata whenua to identify measures to avoid, remedy or mitigate adverse cultural effects Encourage tangata whenua to recommend appropriate measures to avoid, remedy or mitigate adverse environmental effects on cultural values, resources or sites, from the use and development activities as part of consultation for resource consent applications and in their own resource management plans **Policy MN 1B**: Recognise and provide for matters of national importance (a) Identify which natural and physical resources warrant recognition and provision for as matters of national importance under section 6 of the Act using criteria consistent with those contained in Appendix F of this Statement; (b) Recognise and provide for the protection from inappropriate subdivision, use and development of those areas, places, features or values identified in accordance with (a) in terms of natural character, outstanding natural features and landscapes, and historic heritage; (c) Recognise and provide for the protection of areas of significant indigenous vegetation and habitats of indigenous fauna identified in accordance with (a); (d) Recognise and provide for enhancing and maintaining public access to and along those areas identified in accordance with (a); (e) Recognise and provide for the relationship of Māori and their culture and traditions identified in accordance with (a) and Policy IW 2B; and	based *"on insufficient scientific testing, standards and methodologies that balance the worldly view of Hapu who utilize these kai resources as part of their extended pataka kai (Food cupboard)."* They have accepted the discharge can continue in accordance with the Proposal, provided WBOPDC seeks an alternative before 2035. They seek a comprehensive monitoring programme. They wish to be involved in data collection and in decision making. They have proposed an assessment matrix for use when identifying impacts of the discharge. These matters have all been addressed or provided for in the proposed conditions of consent. Tangata whenua have identified measures to avoid, remedy or mitigate adverse cultural effects. The recommendations made by tangata whenua in the CIAs have largely been adopted in the proposed consent conditions with the exception of the consent term sought.

(f) Recognise and provide for protection to recognised customary activities. **Policy MN 3B:** Using criteria to assess values and relationships in regard to section 6 of the Act **Policy MN 8B**: Managing effects of subdivision, use and development Avoid and, where avoidance is not practicable, remedy or mitigate any adverse effects of subdivision, use and development on matters of national importance assessed in accordance with Policy MN 1B as warranting protection under section 6 of the Act	
Part 2.7: Matters of National Importance	
Objective 18: The protection of historic heritage and outstanding natural features and landscapes from inappropriate subdivision, use and development. **Objective 19:** The preservation of the natural character of the region's coastal environment (including coastal marine areas) wetlands, lakes and rivers and their margins. **Objective 20:** The protection of significant indigenous habitats and ecosystems, having particular regard to their maintenance, restoration and intrinsic values	Tauranga Harbour and Matakana Island dune system and immediate coastal area are recognised as outstanding natural features and landscapes. The WWTP and pipeline are existing and no specific new development, other than a replacement diffuser, is proposed. The structures required for the pipeline and outfall are not conspicuous. The maintenance works will have a minor effect on the harbour environment that will be temporary.
Objective 22: The coastal marine area, lakes and rivers are generally accessible to the public.	Public access will not be affected.

Operative Regional Coastal Environment Plan

1 July 2003 (updated 22 March 2011)

Objective/Policy	Assessment Summary
Chapter 4: Natural Character	
Objective 4.2.2: The preservation of the natural character of the coastal environment and its protection from inappropriate subdivision, use and development. **Policy 4.2.3(b):** To recognise that most of the coast has some degree of natural character which needs to be protected from inappropriate use and development. The following plan provisions should be used as a guide to the relative weight to be attached to the protection of natural character in particular localities: • The purpose of the zones as set out in chapter 3 – Plan Structure. • Policies 4.2.3(f), 4.2.3(i), 5.2.3(a), 5.2.3(b), 6.2.3(a) and 6.2.3(b). • Policies 13.2.3(b), 13.2.3(c) and 13.2.3(d). • The outstanding and regionally significant landscapes and natural features identified in the maps and the Fourth Schedule – Natural Features and Landscapes. • The sites of ecological significance and areas of significant conservation or cultural value identified in the maps, the Third Schedule – Areas of Significant Conservation Value, the Sixth Schedule – Significant Marshbird Habitat Areas, the Seventh Schedule – Significant Indigenous Vegetation Areas, and the Fourteenth Schedule – Areas of Significant Cultural Value. • Fifth Schedule – Management Guidelines for Natural Features and Landscapes. **Policy 4.2.3(c):** To recognise that all remaining areas of indigenous vegetation and habitats in the coastal environment contribute to the overall natural character of the environment. Cumulative adverse effects on these areas should be avoided. **Policy 4.2.3(d):** To recognise the important ecological interconnections that are necessary to sustain species and their habitats. Cumulative and irreversible adverse effect on these interconnections should be avoided. **Policy 4.2.3(g):** Natural character must be restored where appropriate in areas where it has been degraded.	The Plan recognises that Tauranga Harbour and an area of Matakana Island as Outstanding Natural Features and Landscapes (ONFL3 and 5). The WWTP and pipeline are existing and no specific new development, other than a replacement diffuser, is proposed. The structures required for the pipeline and outfall are not conspicuous. The maintenance works will have a minor effect on the harbour environment that will be temporary.
Chapter 5: Natural Features and Landscapes	
Objective 5.2.2: The maintenance of the quality of the outstanding and regionally significant landscape features. **Policy 5.2.3(a):** To ensure the visual quality, and the physical and ecological integrity of the outstanding and regionally significant natural features and landscapes of the coastal environment are maintained. The guidelines contained in the Fifth Schedule – Management Guidelines for Natural Features and Landscapes, will be applied.	The Plan recognises that Tauranga Harbour and an area of Matakana Island as Outstanding Natural Features and Landscapes (ONFL3 and 5).

Policy 5.2.3(b): To recognise and provide appropriate protection for natural features and landscapes of district or local significance in the coastal environment. The guidelines contained in the Fifth Schedule – Management Guidelines for Natural Features and Landscapes, should be applied. **Policy 5.2.3(c):** Adverse visual effects on the outstanding and regionally significant natural features and landscapes identified in the Fourth Schedule – Natural Features and Landscapes, and the significant sub-tidal scenery identified in the Third Schedule – Areas of Significant Conservation Value, should be avoided or remedied. **Policy 5.2.3(d):** To maintain significant public views and visual corridors associated with the outstanding and regionally significant natural features and landscapes identified in the Fourth Schedule – Natural Features and Landscapes. This includes views from within the landscapes or features, and views of the landscape and features. **Policy 5.2.3(e):** To avoid damage to visually significant vegetation such as Pohutukawa and other native vegetation on headlands, coastal cliffs, and margins of the outstanding and regionally significant landscapes and features identified in the Fourth Schedule – Natural Features and Landscapes. **Policy 5.2.3(g):** To protect the cumulative landscape qualities of channels, tidal flats, beaches, coastal margins, vegetation and the land backdrop. **Policy 5.2.3(h):** Reclamations and seawalls must reflect natural coastal landforms (curves, embayments and headlands) rather than straight lines and rectangular shapes. **Policy 5.2.3(i):** New development should be of a design, materials and colours which blend the development with the surrounding environment, and maintain amenity values. Markers or high visibility materials may be required to provide for safety where relevant.	The WWTP and pipeline are existing and no specific new development, other than a replacement diffuser, is proposed. The structures required for the pipeline and outfall are not conspicuous. The maintenance works will have a minor effect on the harbour environment that will be temporary.
Chapter 6: Significant Areas of Flora and Fauna	
Objective 6.2.2: The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna within the coastal environment. **Policy 6.2.3(b):** To avoid or remedy adverse effects on the values of the sites and areas of significance in the Coastal Management Zone. The sites and areas are shown on the maps, and a summary of values is provided in the Third Schedule – Areas of Significant Conservation Value, the Sixth Schedule – Significant Marshbird Habitat Areas, and the Seventh Schedule – Significant Indigenous Vegetation Areas. Remediation can be achieved by means of a financial contribution, where appropriate, as set out in the Tenth Schedule – Financial Contributions. **Policy 6.2.3(c):** To promote and encourage the appropriate protection and management of all sites of significance on land within the coastal environment, as identified in the maps, the Sixth Schedule – Significant Marshbird Habitat Areas, and the Seventh Schedule – Significant Indigenous Vegetation Areas. **Policy 6.2.3(d):** To afford an appropriate level of protection to significant indigenous vegetation and habitats of indigenous fauna which are not specifically identified in this plan. **Policy 6.2.3(e):** To ensure that all Environment Bay of Plenty planning, decision-making and operations within the coastal environment provide for the protection of significant sites of indigenous vegetation and significant habitats of	The Plan includes: Indigenous Biological Diversity Area A: Egg Island Sandbank, Western Foreshore of Matakana Island and Indigenous Biodiversity Area A: Matakana Island Eastern Foreshore. Prior to any pipeline investigation, consultation will occur to agree on the location and methods to be used.

indigenous fauna as matters of national importance.	
Chapter 7: Public Access	
Objective 7.2.2: The maintenance and enhancement of appropriate public access to and along the coastal marine area. **Policy 7.2.3(a):** To promote public access to and along the coastal marine area and ensure that public access is restricted only where necessary: • To protect areas of significant indigenous vegetation and/or significant habitats of indigenous fauna; • To protect Maori cultural values; • To protect public health or safety; • To ensure a level of security consistent with the purpose of a resource consent; or • In other exceptional circumstances sufficient to justify the restriction notwithstanding the national importance of maintaining that access. Further provision for and enhancement of public access to and along the coastal marine area will, as far as practicable, avoid any adverse effects on other values. The provisions of chapter 3 – Plan Structure, chapter 4 – Natural Character, the Third Schedule – Areas of Significant Conservation Value, the Sixth Schedule – Significant Marshbird Habitat Areas, the Seventh Schedule – Significant Indigenous Vegetation Areas, the Fourteenth Schedule – Areas of Significant Cultural Value, and the maps, should be used as a guide to the relative sensitivity of the coastal environment to public access.	Public access will not be affected.
Chapter 8: Tangata Whenua Interests	
Objective 8.2.2(a): The involvement of tangata whenua in management of the coastal environment. **Objective 8.2.2(b):** The protection of the characteristics of the coastal environment of special spiritual, cultural and historical significance to tangata whenua. **Objective 8.2.2(c):** Sustaining the mauri of coastal resources. **Policy 8.2.3(a):** To recognise the significance of the coastal environment to tangata whenua, and to provide for customary uses and management practices relating to the natural and physical resources of the coastal environment, including mahinga mataitai, waahi tapu and taonga raranga, in accordance with tikanga Maori. **Policy 8.2.3(b):** To recognise the role of tangata whenua of the Bay of Plenty as kaitiaki of the region's coastal resources, and the right of each iwi to define their own preferences for coastal management within their tribal boundaries. **Policy 8.2.3(c):** To avoid, remedy or mitigate adverse effects on resources or areas of special spiritual, historical or cultural significance to tangata whenua. This includes, but is not limited to, those areas and values identified in the	Tangata whenua have identified measures to avoid, remedy or mitigate adverse cultural effects. The recommendations made by tangata whenua in the CIAs have largely been adopted in the proposed consent conditions with the exception of the consent term sought. The proposed conditions adopt the Matakana and Rangiwaea Islands Hapū assessment matrix, which includes a suite of Maori values that have been recommended by Matakana and Rangiwaea Islands Hapū to monitor the effects of the Proposal. The conditions also

maps and Fourteenth Schedule – Areas of Significant Cultural Value.	require the Hapū's direct involvement in the monitoring. The Hapū have explained that tuatua are a taonga to them as a keystone species and WBOPDC has undertaken to monitor tuatua in the conditions. Tangata whenua will also play a central role in the process for investigating alternatives to the discharge.
Chapter 9: Coastal Discharges	
Objective 9.2.2: Maintenance and enhancement of the water quality and mauri of the Bay of Plenty coastal marine area. **Policy 9.2.3(b):** Discharges must not have significant adverse effects on aquatic life, habitats, feeding grounds, ecosystems or amenity values in the coastal marine area. This policy applies whether or not the actual point of discharge is in the coastal marine area. Environment Bay of Plenty will apply the classifications and standards contained in the Thirteenth Schedule – Water Quality Standards, unless other standards can be demonstrated to be more consistent with the purpose of the Act. When existing water quality significantly exceeds the classification standards, a higher standard may be applied. **Policy 9.2.3(c):** Discharges must not cause water quality to be unsuitable for the purposes of contact recreation, and shellfish gathering for human consumption, throughout harbours and estuaries and on the open coast out to a distance of 400 metres from the line of mean high water springs. This policy applies whether or not the actual point of discharge is in the coastal marine area. Environment Bay of Plenty will apply the classifications and the standards contained in the Thirteenth Schedule – Water Quality Standards, unless other standards can be demonstrated to be more consistent with the purpose of the Act. When existing water quality significantly exceeds the classification standards, a higher standard may be applied. **Policy 9.2.3(e)** Activities which could result in the accumulation of persistent toxic contaminants in sensitive receiving environments, should be avoided. **Policy 9.2.3(f)** To have regard to the following matters when considering what constitutes reasonable mixing: • acute and chronic toxicity effects; • efficient mixing of the effluent with the receiving waters; • minimising the area of water that does not meet the classification standards; • the purposes for which coastal waters are classified. **Policy 9.2.3(g)** Discharge of human sewage into coastal waters, that has not passed through, land, soil or wetland, may only occur where there has been full consideration of the objectives and policies of this plan, following consultation with tangata whenua, and where it better meets the purpose of the Act. For the purpose of clarity, policy	The water quality, after reasonable mixing will be maintained. Contact recreation and shellfish gathering guidelines will be met beyond the mixing zone. The treatment process includes a wetland before it discharges to the CMA.

9.2.3(d) is to be applied to the discharge of stormwater	
Chapter 12: Occupation of Space	
Objective 12.2.2: Provision for the exclusive occupation of land and any related part of the coastal marine area while avoiding, remedying or mitigating any associated adverse environmental effects. **Policy 12.2.3(a):** To recognise and provide for the benefits to the wellbeing of present and future generations of maintaining public access to the coastal marine area. Public access should only be restricted where the criteria in policy 7.2.3(a) apply, or specific areas have been identified in accordance with method 7.2.4(a).	The pipeline occupies space in the CMA. Public access will not be affected.
Chapter 13: Structures	
Objective 13.2.2: Any structures in the coastal marine area are to be appropriate. **Policy 13.2.3(a**) To avoid all adverse effects of structures on the values of the Coastal Habitat Preservation Zone. **Policy 13.2.3(e):** To allow an activity in the Coastal Management Zone where it is appropriate having considered the actual or potential effects on the environment, including the values of the site. **Policy 13.2.3(g):** To discourage the proliferation of structures in the coastal marine area and promote the efficient use of existing structures, facilities and network utility corridors. Where practicable, new services and structures are to be located in or adjacent to existing infrastructure, provided that: • they are not incompatible with the existing services or utilities; and • the environmental effects of locating at an existing facility will be less than the effects of alternatives. **Policy 13.2.3(h):** To avoid, remedy or mitigate any adverse effects of activities associated with structures in the Coastal Management Zone. **Policy 13.2.3(i):** The effects of structures on coastal hydrological and geomorphic processes will be specifically taken into account. **Policy 13.2.3(j):** Activities will not result in any nuisance to adjoining occupiers of the coastal marine area or nearby land, which is not controlled to acceptable levels or avoided altogether. Nuisance effects such as noise, dust, traffic, light, glare or smell are to be avoided, remedied or mitigated.	The pipeline is an existing structure and for the majority of its' length it is buried
Chapter 14: Disturbance, Deposition and Extraction	
Objective 14.2.2(a): Provisions for disturbance and deposition within the coastal marine area only as appropriate and while avoiding, remedying or mitigating any associated adverse environmental effects. **Policy 14.2.3(f):** To avoid, remedy or mitigate any adverse environmental effects associated with disturbance, deposition or mineral extraction.	Installing the new diffuser and pipe investigations will cause short term localised effects that are minor.

Chapter 19: Recreation	
Objective 19.2.2: Appropriate recreation within the Bay of Plenty coastal environment. **Policy 19.2.3(a):** To recognise the recreational values of the Bay of Plenty coastal marine area as being of national significance. Effects on those values shall be avoided as far as practicable, and where avoidance is not practicable, remedied or mitigated. **Policy 19.2.3(d):** To promote provision of the appropriate land-based infrastructure to support recreational activities within the coastal environment while ensuring minimal adverse effects associated with such facilities. **Policy 19.2.3(e):** To avoid, remedy or mitigate any significant adverse environmental effects of recreation. **Policy 19.2.3(g)**: Areas of high actual or potential use for recreation should be protected from incompatible activities.	Contact recreation and shellfish gathering guidelines will be met beyond the mixing zone.

Proposed Regional Coastal Environment Plan

Under the RMA certain rules in the Proposed Plan have immediate legal effect once notified. On 20 August 2015, Council made its decision on the Proposed Plan. From 1 September 2015 the Proposed Plan is amended in accordance with those decisions.

Objective/Policy	Assessment Summary
Integrated management	
Objective 1: Achieve integrated management of the coastal environment by: (b) adopting a whole of catchment approach to management of the coastal environment; and (c) recognising and managing the effects of land uses and freshwater-based activities (including discharges) on the Coastal Marine Area; and (d) enabling kaitiakitanga (e) planning for and managing cumulative effects	WBOPDC has consulted with tangata whenua and proposed conditions that recognise and provide for kaitiakitanga, for example, through the proposed monitoring that includes cultural monitoring.
Natural Heritage	
Objective 2: Protect the attributes and values of: (a) outstanding natural features and landscapes of the coastal environment. (b) Areas of high, very high and outstanding natural character in the coastal environment From inappropriate subdivision, use, and development, and restore or rehabilitate the natural character of the coastal environment where appropriate **Policy NH 4:** Adverse effects must be avoided on the values and attributes that contribute to the following areas: (a) Outstanding Natural Character areas (as identified in Appendix I to the RPS); (b) Outstanding Natural Features and Landscapes (as identified in Schedule 3); (c) Any Indigenous Biological Diversity Area A (as identified in Schedule 2, Table 1); and Adverse effects must be avoided on taxa that meet the criteria listed in Policy 11(a)(i) or (ii) of the NZCPS. **Policy NH4;** When assessing the extent and consequence of any adverse effects on the values and attributes of the areas listed in Policy NH 4 and identified in Schedules 2 and 3 to this Plan and Appendix I to the RPS: (a) Recognise the existing activities that were occurring at the time that an area was assessed as having Outstanding Natural Character, being an Outstanding Natural Feature and Landscape or an Indigenous Biological Diversity Area A; (b) Recognise that a minor or transitory effect may not be an unacceptable adverse effect; (c) Recognise the potential for cumulative effects that are more than minor; and (d) Have regard to any restoration and enhancement of the attributes and values of the area affected that will occur. **Policy NH 6:** Significant adverse effects must be avoided, and other adverse effects avoided, remedied or mitigated,	There are no adverse effects on natural character or outstanding natural features and landscapes.

on the values and attributes of: (a) Any Indigenous Biological Diversity Area B (as identified in Schedule 2, Table 2); and (b) Natural features and natural landscapes in the coastal environment that are not listed as outstanding in Schedule 3. **Policy NH 6A** Significant adverse effects on natural character in areas that are not identified as outstanding in Appendix I to the RPS are to be avoided, and other adverse effects avoided remedied or mitigated. **Policy NH 9A** Recognise and provide for Māori cultural values and traditions when assessing the effects of a proposal on natural heritage, including by: (a) Avoiding significant adverse effects, and avoiding, remedying, mitigating or offsetting other effects, on habitats of indigenous species that are important for traditional or cultural purposes; and on cultural and spiritual values associated with natural features and natural landscapes; (b) Avoiding, remedying or mitigating cumulative adverse effects on the cultural landscape; (c) Assessing whether restoration of cultural landscape features can be enabled; and (d) Applying the relevant Iwi Resource Management policies from this Plan and the RPS. **Policy NH 11:** Manage the adverse effects of the subdivision, use, maintenance and development activities in the coastal environment in accordance with the following management regime: (a) Route or site selection considers the avoidance of significant natural heritage areas listed in Policy NH 4, (b) Adverse effects are avoided to the extent reasonable, having regard to the technical and operational requirements associated with regionally or nationally significant infrastructure. (c) Adverse effects which cannot be avoided are remedied or mitigated, and (d) Adverse effects on the values and attributes that contribute to any Indigenous Biological Diversity Area A (as defined in Schedule 2, Table 1) or on any taxa that meet the criteria listed in Policy 11(a)(i) or (ii) of the NZCPS which cannot be avoided, remedied or mitigated are offset with no net loss and preferably a net gain. A biodiversity offset should be developed in a manner consistent with the principles contained in Schedule 13.	
Water Quality	
Objective 7: Discharges of contaminants to the coastal marine are managed to meet the following goals: (a) After reasonable mixing, discharges of contaminants meet the water quality classification of the receiving water bodies as a minimum; and have no more than minor adverse effects on aquatic life, habitats, and recreational uses. (b) Discharges of contaminants occur in a manner that recognises and provides for the cultural values of mana whenua acknowledged for that area. (c) Cumulative effects of discharges are managed in a way that recognises the sensitivity and assimilative capacity of the receiving environment.	An assessment of the discharge quality against the water quality standards has been undertaken. In recognising and providing for cultural values, a comprehensive monitoring programme is proposed. Tangata whenua will be involved in data collection and in decision making. An assessment matrix for

	use when identifying impacts of the discharge has been proposed. These matters have all been addressed or provided for in the proposed conditions of consent.
Iwi Resource Management	
Objective 12: The active involvement of tangata whenua in management of the coastal environment when activities may affect their interests and values. **Objective 13** Tāngata whenua are able to undertake customary activities in the coastal marine area, and access to sites used for cultural practices, gathering kaimoana, mahinga mātaitai and areas of cultural significance is maintained or enhanced **Objective 14** The protection of those taonga, sites, areas, features, resources or attributes of the coastal environment (including the Coastal Marine Area) which are either of significance or special value to tāngata whenua (where these are known). **Objective 15** The restoration of areas of cultural significance, including mahinga mātaitai, and the mauri of coastal waters, where customary activities or the ability to collect healthy kaimoana are restricted or compromised. **Objective 16** Where appropriate, cultural health indicators are used that recognise and express Māori values, and tāngata whenua are involved in monitoring the state of the coastal environment and impacts of consented activities. **Objective 17:** Appropriate mitigation or remediation is undertaken when activities have an adverse effect on the mauri of the coastal environment or areas of cultural significance to tangata whenua the relationship of tāngata whenua and their customs and traditions with the coastal environment.	Tauranga Harbour is identified as an Area of Significant Cultural Value (ASCV-4). The proposed conditions include a requirement to agree with tangata whenua prior to any pipeline investigation on the location and methods to be used to ensure that the cultural values are able to be protected. Tangata whenua have identified measures to avoid, remedy or mitigate adverse cultural effects. The recommendations made by tangata whenua in the CIAs have largely been adopted in the proposed consent conditions. The proposed conditions adopt the Matakana and Rangiwaea Islands Hapū assessment matrix, which includes a suite of Maori values that have been recommended by Matakana and Rangiwaea Islands Hapū to monitor the effects of the Proposal. The conditions also require the Hapū's direct involvement in the monitoring. The Hapū have explained that tuatua are a taonga to them as a keystone species and WBOPDC has undertaken to monitor tuatua in the conditions. Tangata whenua will also play a central role in the process for investigating alternatives to the discharge. There are relevant iwi management plans and these have been considered. Further,
Policy IW 1: Proposals which may affect the relationship of Māori and their culture and traditions must recognise and provide for: (a) Traditional Māori uses, practices and customary activities relating to natural and physical resources of the coastal environment such as mahinga kai, mahinga mātaitai, wāhi tapu, ngā toka taonga, tauranga waka, taunga ika and taiāpure in accordance with tikanga Māori; (b) The role and mana of tāngata whenua as kaitiaki of the region's coastal environment and the practical demonstration of kaitiakitanga; (c) The right of tāngata whenua to express their own preferences and exhibit mātauranga Māori in coastal management within their tribal boundaries and coastal waters; and (d) Areas of significant cultural value identified in Schedule 6 and other areas or sites of significant cultural value identified by Statutory Acknowledgements, iwi and hapū resource management plans or by evidence produced by tāngata whenua and substantiated by pūkenga, kuia and/or kaumatua.	

Policy IW 2: Avoid significant adverse effects on resources or areas of spiritual, historical or cultural significance to tāngata whenua in the coastal environment identified using criteria consistent with those included in Appendix F set 4 to the RPS, and remedy or mitigate other adverse effects on these areas. Where significant adverse effects cannot be avoided, remedied or mitigated, it may be possible to provide positive effects that offset the effects of the activity. **Policy IW 4:** The following shall be taken into account during decision-making: (a) The consistency of the proposal with any Iwi or Hapū Management Plan lodged with the Regional Council that applies to the area affected, and (b) Recognition provided under any other legislation – including but not limited to: Treaty of Waitangi settlements; gazetting of Rohe Moana and Mātaitai under the Kaimoana Customary Fishing Regulations 1998 and the customary rights recognitions available under the Marine and Coastal Area (Takutai Moana) Act 2011. **Policy IW 5** Decision makers shall recognise that only tāngata whenua can identify and evidentially substantiate their relationship and that of their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga. Those relationships must be substantiated for evidential purposes by pūkenga, kuia and/or kaumātua. **Policy IW 6** Applications for coastal permits should include sufficient evidence of consultation with tāngata whenua likely to be affected by the proposed activity or those who otherwise have tribal jurisdiction over the location of the proposed activity. Tāngata whenua that may be affected by a proposal include those: (a) That have mana moana or mana whenua over an affected area; (b) That are ahi kā; (c) That are landowners; (d) Groups that have recognition under other legislation; or (e) Tāngata whenua who have lived in an affected area for a long time. **Policy IW 7** Where proposals are likely to have an adverse effect on the mauri of the coastal environment, the consent authority shall consider imposition of consent conditions that incorporate the use of mātauranga Māori based methods or cultural indicators that recognise and express Māori values to monitor the effects of the activity on the mauri of the natural and physical resources of the coastal environment. **Policy IW 8** Tāngata whenua shall be involved in establishing appropriate mitigation, remediation and offsetting options for activities that have an adverse effect on areas of significant cultural value (identified in accordance with Policy IW 1(d)). **Policy IW 9** With regard to Policy IW 8, recognise that appropriate mitigation, remediation and offsetting may include, but is not limited to, the following: (a) Restoring and protecting areas identified by tāngata whenua as being of significant cultural or biodiversity value or that are mahinga kai sites; or (b) Contributing resources (financial or otherwise) to environmental, social or cultural enhancement and improvement programmes run by affected tāngata whenua; or (c) Providing structures associated with customary activities or access to resources of cultural value.	WBOPDC has commissioned specific cultural impact assessments in relation to the Proposal.
Activities in the CMA: Objectives	

Objective 25: Activities and structures that depend upon the use of natural and physical resources in the coastal marine area, or have a functional need to be located in the coastal marine area are recognised and provided for in appropriate locations, recognising the positional requirements of some activities. **Objective 26:** Activities and structures in the coastal marine area are located, designed and undertaken in a manner that is appropriate given the values and existing uses of their location.	The pipeline is an existing structure and for the majority of its' length it is buried.
Policy SO 1: Recognise the following structures are appropriate in the coastal marine area, subject to Natural Heritage Policy NH 1 and NH 4, Iwi Resource Management Policy IW 2 and an assessment of adverse effects on the location: (a) Structures associated with activities that are functionally dependent on being located in the Coastal Marine Area (including aquaculture); and (b) Regionally and nationally significant infrastructure; or (c) .... **Policy SO 2**: Structures in the Coastal Marine Area shall: (a) Be consistent with the requirements of the NZCPS, in particular Policies 6(1)(a) and 6(2); (aa) Where relevant, be consistent with the National Policy Statement on Electricity Transmission; (b) Be consistent with the requirements of the RPS in relation to the Coastal Environment, in particular Policies CE 2B, CE 4A, CE 5A, CE 8B, CE 9B, CE 11B, and CE 12B; (c) Avoid, remedy or mitigate adverse effects on coastal hydrological and geomorphic processes; (d) Be designed to avoid or mitigate erosion or scour (including stormwater outfall structures); (e) Avoid adverse effects on navigation channels and mooring areas, while recognising structures associated with infrastructure, transportation (marine and land), public access, and structures below the seabed may be appropriate in such areas; and ... **Policy SO 3:** Adverse effects from the use of structures in the coastal marine area: (a) Will be controlled to acceptable levels or avoided altogether; and (b) Will not result in significant nuisance effects (such as noise, dust, traffic, light, glare or smell) to adjoining occupiers of the coastal marine area or nearby land, and other nuisance effects will be avoided, remedied or mitigated. Appropriate controls on nuisance effects will consider the district or city plan provisions relevant to the adjoining land. **Policy SO 4:** Require the efficient use of space in the coastal marine area, including: (a) concentration of mooring areas, so as to leave some areas in a natural state free of boats, and to provide for efficient management of parking, storage and facilities; (b) efficient use of existing structures, facilities and network utility corridors. Where practical, new services and structures are located in, or adjacent to, existing infrastructure, provided that:	

(i) they are not incompatible with the existing services or utilities; and (ii) whether the environmental effects of locating at an existing facility will be less than the effects of alternatives. ... **Policy SO 6:** When considering the occupation of space in the common marine and coastal area, comply with the following: (a) The requirements of Policy 6(2) of the NZCPS; (b) The requirements Policy CE 11B of the RPS; (c) Only impose restrictions on public walking access to or along the coastal marine area where necessary in accordance with Policy 19(3) NZCPS; and (d) Encourage the provision of public access over erosion protection structures, where appropriate to the location and public safety.	
Disturbance, deposition and extraction (DD)	
Policy DD 7 Activities that cause disturbance of the foreshore and seabed shall: (a) Be undertaken at times of the day or year and using methodologies, that will avoid significant adverse effects and remedy or mitigate other adverse effects on the environment, particularly on: (i) The feeding, spawning and migratory patterns of indigenous fauna, including bird roosting, nesting and feeding, and whitebait runs; (ii) Indigenous ecosystems and habitats that are particularly vulnerable to modification, including: estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh; and (iii) Habitats of indigenous species that are important for recreational, commercial, cultural or traditional purposes, including traditional Māori gathering, collection or harvest of kaimoana; and (b) Ensure that the foreshore or seabed is, as far as practicable, reinstated in a manner which is in keeping with the natural character and visual amenity of the area; (c) Avoid significant adverse effects on biota caused by the release of contaminants; and (d) Be undertaken at times of the day or year, and using methodologies, that will avoid as far as practicable, remedy or mitigate adverse effects on: (i) Recreational use of the coastal marine area; and (ii) Other lawfully established activities in the coastal marine area.	The proposed conditions include a requirement to agree with tangata whenua prior to any pipeline investigation on the location and methods to be used to ensure that the cultural values are able to be protected.
Activities in the CMA: Coastal discharges (CD)	
Policy CD 1: Discharges to the coastal marine area must:	The water quality standards in Schedule 10 have been assessed and a mixing zone

(a) Avoid significant adverse effects, including cumulative effects, on aquatic life, habitats, feeding grounds, kaimoana (including shellfish gathering), ecosystems, contact recreation and amenity values in the coastal marine area after reasonable mixing; (b) Minimise adverse effects on the life-supporting capacity of water within the mixing zone; (e) Avoid the discharge of persistent toxic contaminants into the environment, and where avoidance cannot be practically achieved, the adverse effects of such discharges must be mitigated or remedied; (f) Avoid, remedy or mitigate adverse effects on the stability of the coastal environment, including localised erosion and scour resulting from the discharge; (g) Maintain or enhance the physical characteristics of receiving waters (including salinity) that contribute to their life supporting capacity, including their ability to support indigenous flora and fauna and kaimoana beds; and (h) Be of a quality that has particular regard to: (i) The sensitivity of the receiving environment; (ii) The capacity of the receiving environment to assimilate contaminants; and (iii) The nature of the contaminants to be discharged, the concentration of contaminants needed to achieve the required water quality in the receiving environment, and the risks if that concentration of contaminants is exceeded. **Policy CD 2** Apply the water quality classifications and standards contained in Schedule 10 to discharges to the coastal marine area, unless other standards can be demonstrated to be more consistent with the purpose of the Resource Management Act 1991. When existing water quality is significantly better than the classification standards, a higher standard will be applied to prevent degradation of existing water quality. **Policy CD 2A** If a water quality standard higher or additional to that set by Schedule 10 is required to prevent degradation of existing water quality, the standard will be selected in accordance with the following hierarchy: 1. New Zealand derived risk-based thresholds. 2. Rest of the world derived risk-based thresholds, with preference given to those that are methodological consistent with those already used in New Zealand. **Policy CD 3:** To define the radius of a reasonable mixing zone in the conditions of a resource consent for the point source discharge of contaminants to coastal waters having regard to the following matters: (a) Use of the smallest mixing zone necessary in order to minimise adverse effects on the life-supporting capacity of water within the mixing zone and achieve the required water quality standard of the receiving environment. (b) The water quality standard in Schedule 10 to this Plan. (c) The hydrological regime of the receiving water. (d) The ambient concentrations of contaminants in the receiving water. (e) Effluent discharge flow rate and contaminant concentrations. (f) Existing discharge and abstraction consents in the area affected by the proposed point source discharge. (g) The need to avoid significant adverse effects on ecosystems and habitats after reasonable mixing.	proposed.

(h) The values and existing uses of the area affected by the proposed point source discharge. (i) Māori cultural values (refer to Policy CD 4 and Iwi Resource Management policies). (j) Proximity to bathing sites. (k) Adverse environmental effects of the discharge, including cumulative effects in relation to (a) to (j). (l) The location of the discharge and position of the outfall. (m) Outfall diffuser design criteria. (n) Information provided by the applicant. (o) Any other information relevant to the nature of the discharge and the site characteristics. **Policy CD 3A** When considering measures to avoid, mitigate and remedy adverse effects on the coastal marine area, as a result of the discharge of contaminants, particular regard must be had to using alternative land based treatment and disposal systems, where appropriate and environmentally sustainable and where socially, technically and economically feasible. **Policy CD 4** To recognise and provide for the effects on the mauri of the receiving environment caused by the discharge of contaminants to the coastal marine area by: (a) Promoting efficient use of water, including reuse and recycling of wastewater. (aa) Discouraging disposal of toxic materials via wastewater systems. (b) Encouraging a shift to land based treatment and disposal systems, where appropriate and environmentally sustainable and socially, technically and economically feasible. This includes disposal of sewage by passage through land, soil or wetlands. (c) Avoiding, remedying or mitigating adverse effects on coastal resources or sites that are of significance to tāngata whenua, where such resources or sites have been identified by tāngata whenua **Policy CD 5** To maintain a response capability with regard to unauthorised or accidental discharges or spills of contaminants into the coastal marine area. **Policy CD 7** Discharges of treated human sewage to coastal water that has not passed through land, soil or wetlands may only be consented where: (a) The proposal is consistent with Policy 23(2)(b) of the NZCPS; (b) There has been full consideration of the objectives and policies of this Plan; and (c) The proposal to discharge treated human sewage directly to coastal water better meets the purpose of the Resource Management Act 1991 than a discharge to coastal water that has first passed through land, soil or wetlands. **Policy CD 8** Recognise that the disposal of wastewater in a different rohe from where it is generated is culturally inappropriate to tāngata whenua. **Policy CD 9** During the assessment of applications to discharge treated human sewage to the coastal marine area, consider whether the proposal:	WBOPDC has undertaken assessments of alternatives as required under its existing consent conditions. It has also proposed a detailed investigation process to be undertaken during the life of the Proposal. Alternative investigations to date have determined that the outfall is the best practicable option at this stage. A key component is to recognise and provide for the effects on the mauri of the receiving environment caused by the discharge of contaminants and where there are effects on the mauri, *the consent authority shall consider imposition of consent conditions that incorporate the use of mātauranga Māori based methods or cultural indicators that recognise and express Māori values to monitor the effects of the activity on the mauri of the natural and physical resources of the coastal environment.* The proposed conditions adopt the Matakana and Rangiwaea Islands Hapū assessment matrix, which includes a suite of Maori values that have been recommended by Matakana and Rangiwaea Islands Hapū to monitor the effects of the Proposal

(a) Promotes better use of fresh water by efficient use of water, reuse and recycling of wastewater, and discouraging disposal of toxic materials via wastewater systems; (b) Includes the passing of sewage through land, soil or a wetland; and (c) Avoids highly sensitive discharge locations such as gazetted taiāpure, mahinga kai, other traditional seafood gathering areas or recreational beaches.	

Operative Regional Air Plan 15 December 2003 (updated 1 August 2012)	
Objective/Policy	**Assessment Summary**
Part 3 and 4	
Objective 1: Maintain and protect high air quality in the Bay of Plenty region and in instances or areas where air quality is degraded, to enhance it by specifically addressing discharges into air of gases, particulates, chemicals, agrichemicals, combustion and odour. **Objective 2:** Avoid, remedy or mitigate the adverse effects of all discharges of contaminants into air on the environment which includes the effects on: ecosystems, human health and safety, crops and livestock, amenity values, cultural values, the mauri of natural and physical resources and the global environment. **Policy 1A:** Significant adverse effects of discharges of contaminants into air should be avoided. **Policy 1B:** Adverse effects of discharges into air of contaminants that cannot be practicably avoided should be remedied or mitigated. **Policy 6** Disposal and storage of waste should be undertaken in a manner that avoids, remedies or mitigates adverse effects on air quality. **Policy 12** Provide for the involvement of tangata whenua as kaitiaki (guardians) in the management of the mauri of air.	The air quality in region as a result of the proposed (on-going) air discharge will be maintained and protected through effective WWTP process operation. There will not be any significant adverse effects The onsite management and transportation of biosolids off-site will be managed in such a way that adverse effects on air quality are avoided.

Iwi Management Plans

Matakana and Rangiwaea Islands Hapu Management Plan October 2012

Social goals

Summary: Controlling the use of our foreshore and seabed

Section 2 Environment

2 Any activities that interfere or disturb our taonga such as kaimoana, breeding grounds and various species of flora and fauna, etc

Any activities that interfere or disturb our taonga such as kaimoana, breeding grounds and various species of flora and fauna, etc

- We have procedurces and protocols that will be explained at that point
- We will work to develop consent conditions within the current consent framework

21. Protecting our salt water

22. Maintaining salt water quality standards

Our position is that we want full consultation and engagement to develop plans for use of coastal water resources. We want:

- Water quality standards regularly monitored and kept within human safety levels
- Tikanga and kaitiakitanga practices adhered to at all times

23. Sewage pipeline discharging into the ocean off the barrier arm. This directly compromises the coastal environment and poisons our kai moana

This has continued since the 1960's. We strongly object to this activity, and want it to cease. We want Council to invest in other more environmentally- friendly methods of disposing of human waste.

33. Use of coastal resources-- kai moana

Our position is that we want full consultation and engagement to develop plans for

use of coastal resources. We want:

- kiamoana sustainabily managed by delegated hapu members
- Tikanga and kaitiakitanga practices are adhered to at all times

Te Awanui, Tauranga Iwi Harbour Management Plan 2008

WATER QUALITY

OBJECTIVES

1. To preserve, maintain and restore the mauri of Te Awanui through the practice of kaitiakitanga.

2. To ensure that the quality of all discharge is at the highest level at all times.

POLICIES

1. First and foremost, all discharge of waste to water will be opposed by iwi and hapü of Tauranga Moana. However, waste to water is still a threat to the sustainability of the harbour and must be addressed. Wetland enhancement is required as a consent condition for any proposed wastewater schemes to enhance and increase the availability of wetland area in any discharge zones for tertiary treatment.

2. To promote and implement the restoration, enhancement and protection of the receiving environment.

3. Cultural and environmental values take precedence over social and economic benefits.

4. To promote alternative environmentally sound options for waste treatment and disposal systems.

5. The duration of sewage disposal consents must not exceed the lifetime of the disposal or treatment system. All consents must be considered in terms of cumulative and long-term impacts.

6. To monitor and regulate the growth of residential development and implement a precautionary approach to wastewater disposal.

OXIDATION PONDS

OBJECTIVES

1. To protect and preserve the mauri of Te Awanui from the adverse effects of oxidation ponds.

2. To protect and enhance the quality of kaimoana within the harbour and its tributaries.

3. To ensure that the outfall from oxidation ponds have minimal adverse effects on marine life.

POLICIES

1. The highest environmental standards to be applied to the development and use of oxidation ponds.

2. The duration of sewage disposal consents must not exceed the lifetime of the disposal or treatment system. All consents must be considered in terms of cumulative and long-term impacts.

3. Treatment and purification systems must be applied before discharge to land, and close monitoring of the carrying capacity of soils, must be part of any discharge to land activity.

4. Consideration must be given to soil structure, permeability and carrying capacity at the discharge point, potential adverse effects on soil and ground water must be considered.

5. To promote alternative environmentally sound options for waste treatment and disposal systems.

Appendix 7 - Schedule 10 – Water Quality Classifications

Explanation

This schedule provides receiving water quality standards for coastal waters.
The standards apply after reasonable mixing of any contaminant or water with the receiving water and disregarding the effect of any natural perturbations that may affect the water body. The effect of more than one discharge may be assessed cumulatively and the standards apply whether or not the point of discharge is in the coastal marine area. This schedule is not an exclusive list of quantitative standards. When necessary, additional standards may be referred to in accordance with the approach set out in Policy CD 2A to prevent degradation of existing water quality.

Coastal Water Quality Classifications: Equivalent Qualitative and Quantitative Standards

<table>
<tr><th>Qualitative Standard</th><th>Quantitative Standard</th><th>Mātauranga Māori</th><th>Coastal Water Classification</th></tr>
<tr><td>There shall be no conspicuous change in the colour or visual clarity.</td><td>The decrease in secchi disc vertical depth or black disc horizontal range shall not be greater than 20%.</td><td rowspan="4">Te Hauora o te Wai / the health and mauri of water
Coastal waters support a healthy ecosystem appropriate to that locality (open coastal water, lagoon, estuary, coastal wetland, saltmarsh, intertidal areas, rocky reef system etc.

Coastal water quality enables ecological processes to be maintained, supports an appropriate range and diversity of indigenous flora and fauna, and there is resilience to change.</td><td rowspan="4">All coastal waters.
Water managed for aquatic ecosystem purposes.</td></tr>
<tr><td>There shall be no significant adverse effects on aquatic life.</td><td>Refer to: Australian and New Zealand Guidelines for Fresh and Marine Water Quality Australian and New Zealand Environment and Conservation Council, 2000.</td></tr>
<tr><td>There shall be no production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials.</td><td>None</td></tr>
<tr><td>There shall be no emission of objectionable odour</td><td>Refer to the Bay of Plenty Regional Air Plan</td></tr>
</table>

The visual clarity of the water shall be suitable for bathing.	The horizontal sighting distance of a 200 mm black disc should exceed 1.6 metres (in the active surf zone it is not possible to use this method). Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Australian and New Zealand Environment and Conservation Council, 2000.	Kei te ora te mauri (the mauri of the place is intact). Coastal resources are able to be used for customary use and customary practices are able to be exercised to the extent desired. Tikanga and preferred methods are able to be practised.	Within all harbours and estuaries, and into the open coast out to a distance of 400 metres from the line of mean high water springs, and within 500 metres of any consented aquaculture farm. Water managed for contact recreation purposes and for the gathering or cultivating of shellfish for human consumption.
The water shall not be rendered unsuitable for bathing by the presence of contaminants.	Microbiological: The concentration of enterococci must not exceed 280 cfu/100ml. See Microbiological Water Quality Guidelines for methodology (MfE & MoH, 2003).		
Aquatic organisms shall not be rendered unsuitable for human consumption by the presence of contaminants.	Microbiological The median faecal coliform content of samples taken over a shellfish-gathering season shall not exceed a Most Probable Number (MPN) of 14/100 mL, and not more than 10% of samples should exceed an MPN of 43/100 mL (using a five-tube decimal dilution test). See Microbiological Water Quality Guidelines for methodology (MfE & MoH, 2003).	Kaimoana is safe to harvest and eat.	
There shall be no undesirable biological growths as a result of any discharge of a contaminant into the water	None		
The natural temperature of the water shall not be changed by more than 3 degrees C			
The concentration of dissolved oxygen shall exceed 80% of saturation concentration			

Appendix 8 – Proposed Conditions

Proposed Resource Consent Conditions – Katikati Wastewater

The following activities are authorised by these consents:

a) Under section 15(2) of the Resource Management Act 1991 and Rule 19w(ii) of the Bay of Plenty Regional Air Plan as a discretionary activity to discharge odour to air from a wastewater treatment plant ("Air Discharge Consent").

1. PURPOSE

1.1 To authorise and set conditions for the discharge of contaminants to air from the Katikati wastewater treatment plant (WWTP)

2. LOCATION

Location	Legal Description	Grid ref
The WWTP is located at Prospect Drive, Katikati	Lot 4 DPS 27471, Block IX, Katikati SD	2769464 E 6400724 N

3. DEFINITIONS

The following terms within these conditions shall have the following definitions:

"Consent Holder" means the Western Bay of Plenty District Council or their nominee.

"Matakana and Rangiwaea Islands hapū" means Te Whanau A Tauwhao, Ngati Tauaiti, Te Ngare, Ngai Tuwhiwhia, Ngai Tamawhairua,

"Northern Ngai Te Rangi hapū" means Ngai Tamawhariua (Te Rereatukahia marae), Ngati te Wai (Tuapiro marae) and Te Whanau o Tauwhao (Otawhiwhi marae).

"Regional Council" means the Bay of Plenty Regional Council's Chief Executive Officer or their nominee.

"Tangata Whenua" means Matakana and Rangiwaea Islands hapū and Northern Ngai Te Rangi hapū collectively.

"WWTP" means the Katikati Wastewater Treatment Plant including the primary screening building, aerated lagoons, wetlands, emergency overflow pond, dewatering ponds (including the dewatering bags stored within the dewatering ponds) and UV treatment plant.

"WWTS" means the Katikati Wastewater Treatment Scheme, and includes the WWTP, the pipeline and ocean outfall.

4. LIMITS

4.1 The Consent Holder's operations shall not give rise to any discharge of contaminants at or beyond the property boundary that 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. For the purposes of this condition, "property boundary" refers to the boundary of the designation and buffer as set out in the Western Bay of Plenty District Plan.

5. ODOUR MANAGEMENT PLAN

5.1 The Consent Holder shall prepare and implement an Odour Management Plan (OMP) for the WWTP which shall be incorporated into the Katikati Operation, Maintenance and Environmental Plan required for the WWTP. The OMP shall outline how the conditions of the consent will be complied with and include, but not be limited to the following:

(i) A description of odour sources on site;
(ii) A description of the housekeeping procedures to be used at the site;
(iii) The methods for controlling odour at each source;
(iv) A description of the inspection and maintenance procedures'
(v) Contingency methods for plant malfunctions;
(vi) A description of the odour monitoring requirements;
(vii) A system of training for employees and contractors to make them aware of the requirements of the OMP;
(viii) Identification of staff responsible for implementing and reviewing the OMP; and
(ix) A method for recording and responding to complaints from the public.

5.2 The OMP shall be submitted to the Regional Council for certification within 12 months of the date of granting of this consent. The Consent Holder shall also send a copy of the certified OMP to Tangata Whenua.

5.3 Prior to submitting the OMP to the Regional Council the Consent Holder must seek feedback from the Medical Officer of Health and must hold at least one meeting with Tangata Whenua to explain the OMP and seek their feedback on its contents. When the OMP is submitted to the Regional Council the Consent Holder must also provide a summary of the feedback, how it has been incorporated, and if it has not been incorporated, the reasons for not incorporating it.

5.4 At least once every three years for the duration of these consents the Consent Holder shall undertake a review of the OMP to ensure that it remains fit for purpose. An updated copy of the OMP shall be supplied to the Regional Council and Tangata Whenua.

5.5 The Consent Holder must comply with the OMP at all times.

6. DESIGN, MONITORING AND MAINTENANCE

6.1 The Consent Holder shall ensure that all screenings from the primary screen are contained and sealed to restrict gases discharging from the screenings, prior to and during removal of them off site, to reduce the potential odour to a level where there is not likely to be an odour nuisance generated from the screenings removal.

6.2 The Consent Holder shall notify the Regional Council in writing of any maintenance or upgrade works to the WWTP which may increase discharges of contaminants to air on a short term basis and explain any processes in place to manage the potential effects.

6.3 The Consent Holder shall monitor the oxygen level in the aerated lagoons on a continuous basis.

6.4 The Consent Holder shall monitor the oxygen level in the wetlands on a weekly basis.

7 COMPLAINTS

7.1 The Consent Holder shall maintain and keep a Complaints Register for all complaints made about odour received by the Consent Holder. The Register shall record:

a) The date, time and duration of the event/incident that has resulted in the complaint;
b) The name and address of the complainant;
c) The location of the complainant when the event/incident was detected;
d) The outcome of all investigations including site and boundary surveys following notification of the issue including an assessment as to whether the odour was likely to have been of an intensity or nature that was offensive;
e) The possible cause of the incident;
f) The weather conditions and wind direction at the site when the incident allegedly occurred, if significant to the complaint; and
g) Any corrective action undertaken by the Consent Holder in response to the complaint.

7.2 The Complaints Register shall be made available to the Bay of Plenty Regional Council at all reasonable times.

7.3 Complaints which may indicate non-compliance with the conditions of this resource consent shall be forwarded to the Bay of Plenty Regional Council within 5 working days of the complaint being received.

8 REVIEW OF CONDITIONS

8.1 The Regional Council may, on the five last working days of [month] serve notice of its intention to review and amend or add to the conditions of this resource consent under section 128 of the Resource Management Act 1991 for the purpose of:

a) Dealing with any adverse effect on the environment which may arise from the exercise of the resource consent and which it is appropriate to deal with at a later stage; or
b) Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
c) Requiring the Consent Holder to carry out monitoring in addition to or instead of that required by the resource consent.

9 TERM OF CONSENT

9.1 The term of the consent is 35 years.

10 RESOURCE MANAGEMENT ACT CHARGES

10.1 The Consent Holder shall pay the Regional Council such administrative charges as are fixed from time to time by the Regional Council in accordance with section 36 of the RMA.

Proposed Resource Consent Conditions – Katikati Wastewater

The following activities are authorised by these consents:

a) Under section 12(3) of the Resource Management Act 1991 and Rules 12.2.4, 13.2.4 and 14.2.4 of the Bay of Plenty Regional Coastal Environment Plan as discretionary activities to:

(i) Discharge treated wastewater to the Pacific Ocean;
(ii) Occupy the coastal marine area with an ocean outfall pipeline and marker buoy;
(iii) Alter an existing structure; and
(iv) Maintain an ocean outfall structure.

1. PURPOSE

1.1 To authorise and set conditions for:

(a) The discharge of treated wastewater by the way of an ocean outfall from Katikati wastewater treatment plant (WWTP) to the coastal marine area;
(b) the occupation of the coastal marine area by a pipeline and marker buoy;
(c) the alteration of a diffuser structure in the coastal marine area and associated disturbance including installation of a marker buoy; and
(d) the ongoing maintenance, including inspection, of the pipeline.

2. LOCATION

Location	Legal Description	Grid ref
The WWTP is located at Prospect Drive, Katikati	Lot 4 DPS 27471, Block IX, Katikati SD	2769464 E 6400724 N
The discharge shall be into the Pacific Ocean through an existing ocean outfall located off Matakana Island	Coastal Marine Area	1869324 E 5864862 N

3. DEFINITIONS

The following terms within these conditions shall have the following definitions:

"Consent Holder" means the Western Bay of Plenty District Council or their nominee.

"Matakana and Rangiwaea Islands Hapū" means Te Whanau A Tauwhao, Ngati Tauaiti, Te Ngare, Ngai Tuwhiwhia, Ngai Tamawhairua collectively.

"Northern Ngai Te Rangi hapū" means Ngai Tamawhariua (Te Rereatukahia marae), Ngati te Wai (Tuapiro marae) and Te Whanau o Tauwhao (Otawhiwhi marae).

"Regional Council" means the Bay of Plenty Regional Council's Chief Executive Officer or their nominee.

"Regional Council" means the Bay of Plenty Regional Council's Chief Executive Officer or their nominee.

"Tangata Whenua" means Matakana and Rangiwaea Islands hapū and Northern Ngai Te Rangi hapū. collectively.

"WWTP" means the Katikati Wastewater Treatment Plant including the primary screening building, aerated lagoons, wetlands, emergency overflow pond, dewatering ponds (including the dewatering bags stored within the dewatering ponds) and UV treatment plant.

"WWTS" means the Katikati Wastewater Treatment Scheme, and includes the WWTP, the pipeline and ocean outfall.

4. GENERAL

4.1 The Consent Holder shall ensure, as far as reasonably practicable, that stormwater is not discharged into the sewerage system serving the WWTP.

4.2 The Consent Holder shall maintain trade waste bylaws to:

(a) prevent the discharge of toxic substances (that may adversely affect the operation of the treatment system or the receiving environment) into the reticulation system serving the Katikati WWTP; and

(b) regulate biological loading to the WWTP so that biological overloading and consequent consent non-compliance are avoided.

5. SIGNAGE

5.1 Within 6 months of the commencement of the Pipeline Consents, the Consent Holder shall install appropriate signage on Matakana Island clearly identifying the location of the pipeline and warning that treated wastewater is discharged to the ocean 650 offshore. The locations and wording on the signage shall be as agreed with Matakana and Rangiwaea Island Hapū.

5.2 The signage must be maintained by the Consent Holder for the duration of the Pipeline Consents.

6. OUTFALL DIFFUSER

6.1 The Consent Holder shall install a replacement diffuser structure within 24 months of the commencement of these consents.

6.2 The diffuser shall be constructed in general accordance with Drawing XX in Attachment X of these conditions, with the mid-point of the diffuser located at or about Map Reference XX.

6.3 At least one month prior to installation of diffuser, the Consent Holder shall submit the final design of the diffuser structure to the Regional Council for certification. A copy of the final design shall also be provided to Tangata Whenua.

6.4 The Consent Holder shall notify the Regional Council and Tangata Whenua in writing at least one week prior to both the commencement of the survey works undertaken to confirm the design of the diffuser and the installation of the diffuser.

6.5 A certificate signed by a suitably qualified expert responsible for the diffuser design shall be submitted to the Regional Council within three months of commissioning of the outfall and diffuser to certify that the structure has been constructed in accordance with the construction drawings submitted in accordance with Condition 6.2.

6.6 The Consent Holder shall carry out a one-off study within 12 months of the commissioning of the diffuser to validate the dilution that will be achieved. Within one month of completing the study a copy of the validation report shall be provided to the Regional Council and Tangata Whenua.

7. OUTFALL

7.1 The Consent Holder shall ensure that all structures and works authorised under this consent are maintained in a structurally sound condition at all times to the satisfaction of the Regional Council.

7.2 Inspections and investigations of the integrity of the pipeline within Tauranga Harbour shall be limited to:

(a) Visual inspections undertaken by disturbing the seabed to uncover the pipe; and
(b) Removal of sections of pipe for further analysis.

7.3 The Consent Holder may undertake inspections of the pipeline at any time along its length within Tauranga Harbour and must undertake at least one inspection by 2026, subject to the following:

(a) Prior to undertaking any inspections the locations and methodology shall be agreed between the Consent Holder and Tangata Whenua;

(b) The Consent Holder must notify the Regional Council of the location, nature and timing of the inspection no less than 5 working days prior to any inspection; and

(c) Tangata Whenua shall be provided with the opportunity to monitor any inspection works.

Within one month of any visual inspection or of receiving the results of any pipeline testing, the Consent Holder shall provide a copy of the information obtained to the Regional Council and Tangata Whenua.

7.4 Notwithstanding condition 7.3, if an inspection or investigation required is of an urgent nature and there is not sufficient time to give notice, the Consent Holder shall notify the Regional Council and Tangata Whenua as soon as reasonably practicable of the nature of the situation and the measures being undertaken.

8. LIMITS

Discharge Quantity

8.1 The maximum daily volume of treated wastewater discharged to the coastal marine area shall not exceed a maximum of 3700 cubic meters per day.

8.2 The Consent Holder shall measure the flowrate and volume of treated effluent to an accuracy of plus or minus five percent on a daily basis at:

(a) The pump station after the UV plant; and
(b) The pigging stations on Matakana Island.

The Consent Holder shall perform a total flow balance over the outfall pipeline from the Prospect Drive WWTP to the Matakana Island pigging station on a monthly basis.

Discharge Quality

8.3 The discharge of treated wastewater through the outfall shall not cause any of the following effects outside of the 50 metre mixing zone:

a) A change in the natural temperature of the receiving water of more than 3 degrees Celsius
b) Any significant adverse effects on aquatic life as assessed by the benthic surveys required by Condition 9.5 of this consent
c) There shall be no production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials
d) A concentration of dissolved oxygen in the receiving water of below 80 percent of the saturation concentration

unless background levels are higher.

8.4 The Consent Holder shall carry out treated wastewater monitoring at a point after ultraviolet disinfection but prior to discharge using the sampling method and frequency shown below:

Parameter	Unit	Frequency	Sampling Method
5 Day Biochemical oxygen demand	g/m^3	Once per week	24 Hour composite
Total Suspended Solids	g/m^3		24 Hour composite
pH	pH units		Grab
Ammoniacal Nitrogen	g/m^3		24 Hour composite
Total Nitrogen	g/m^3		24 Hour composite
Phosphorus	g/m^3		24 Hour composite
Faecal Coliforms	Number/100mL		Grab
Enterococci	Number/100mL		Grab

Heavy metals (total metals only) Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc	mg/m^3	Annual	24 Hour composite

8.5 The treated wastewater discharged from the WWTP as measured after the UV treatment shall meet the following limits:

Parameter	Unit	Statistical Basis[1]	Consent Limit
5 Day Biochemical Oxygen Demand	kg/d	Median	40
Total Suspended Solids	kg/d	Median	40
pH	pH units	Range	6.5 – 8.5
Total Nitrogen	kg/d	Mean	55
Faecal Coliforms	Number/100mL	Median	500
		Maximum	1000
Enterococci	Number/100mL	Maximum	300

1 the median shall be calculated on a rolling basis from 52 consecutive samples

Receiving Environment

8.6 Samples taken at 50m from the point of discharge shall meet the Enterococci contact recreation standard of 100 cfu/100mL.

Wastewater Sampling Methods

8.7 Treated wastewater samples shall be collected, stored, preserved and analysed in accordance with Standard Methods for the Examination of Water and Wastewater (American Waterworks Association and the Water Environment Federation) or any other method as may be approved by the Regional Council.

8.8 All samples taken shall be analysed by a laboratory that is accredited for that analysis to NZS/ISO/IEC 17025 or equivalent or to any other comparable standard approved by the Regional Council.

8.9 The Consent Holder shall invite at least one representative from the Northern Ngai Te Rangi Hapū to be involved in monitoring at the WWTP and must pay the reasonable costs of their involvement.

9. RECEIVING ENVIRONMENT MONITORING

9.1 The Consent Holder shall carry out a programme of microbiological water monitoring for the duration of the consent, as follows:

a) Water samples shall be taken in February, May, August and November from the following locations:

(i) Approximately 200m directly up current of the outfall structure
(ii) At points as close as practical to 50m, 100m and 200m down current from the outfall structure

b) Ten samples shall be collected at each location and analysed for Enterococci and Faecal Coliforms.

Kaitiaki

9.5 The Consent Holder shall undertake a monitoring programme of receiving water quality, sediment and benthic fauna in accordance with the locations, parameters and frequency specified below.

a) Sediment quality and benthic fauna monitoring to coincide with water quality monitoring on a quarterly basis until there are 12 sampling rounds. For the avoidance of doubt, the sampling may include periods prior to the consent commencing, starting from 2016.

b) Sampling of water quality and sediments shall occur at the following locations and frequency:

	Year 1				Year 2				Year 3			
Station	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
W250	*	*	*		*		*	*	*	*		*
NW150	*		*	*	*	*		*	*	*	*	
W100	*	*		*	*	*	*		*		*	*
W50	*	*	*		*		*	*	*	*		*
W15	*	*		*	*	*	*		*		*	*
W50	*		*	*	*	*		*	*	*	*	
Outfall	*	*	*	*	*	*	*	*	*	*	*	*
E5	*		*	*	*	*		*	*	*	*	
E15	*	*		*	*	*	*		*		*	*
E50	*	*	*		*		*	*	*	*		*
E100	*	*		*	*	*	*		*		*	*
SE150	*		*	*	*	*		*	*	*	*	
E250	*	*	*		*		*	*	*	*		*
E1000	*	*	*	*	*	*	*	*	*	*	*	*
E4000	*	*	*	*	*	*	*	*	*	*	*	*

Sampling of benthic fauna shall occur quarterly at the following sites for three years: W50, W15, W5, Outfall, E5, E15, E50, E1000 and E4000.

Six sites located within the intertidal zone along Matakana Island are to be sampled for tuatua at the same time as the benthic fauna

c) Water quality and sediment samples shall be analysed for:

- Entercocci
- Faecal coliform bacteria
- E. coli
- Total Phosphorus
- Total Nitrogen
- Total Organic Carbon

Heavy metals

- Arsenic
- Cadmium
- Chromium
- Cooper
- Mercury
- Nickel
- Zinc
- Aluminium

d) Tuatua samples shall be analysed for bacteria and heavy metals.

9.6 Upon completion of the 12 sampling rounds, the sampling locations, parameters and frequency shall be reviewed by an appropriately experienced and qualified practitioner(s). Following consultation with Matakana and Rangiwaea Islands Hapū, the Consent Holder shall submit a revised monitoring programme that has been certified by the practitioner to the Regional Council for approval. As a minimum the revised programme shall include:

(i) A further survey in 2026 at a minimum of six sites with samples analysed for water quality, sediment quality and benthic fauna; and
(ii) Annual monitoring of tuatua.

The Consent Holder must undertake monitoring in accordance with the revised monitoring programme.

9.7 The Consent Holder may submit a request to the Regional Council for approval as part of the annual report required under Condition 10 seeking that the monitoring parameters, site locations and/or frequency of sampling outlined in the revised programme be changed on the basis that monitoring results are not demonstrating any significant adverse effects and there is no longer considered to be a need to monitor as a result.

The request shall be verified by an appropriately experienced and qualified practitioner(s) and shall be submitted only following consultation with Matakana and Rangiwaea Islands Hapū. The Consent Holder shall include feedback from the Hapū in its request to the Regional Council.

9.8 Matakana and Rangiwaea Islands Hapū may at any time request that additional species, parameters or locations be sampled in order to assess the effects of the discharge on the environment and/or on cultural values, and any such request and its outcome must be reported in accordance with Condition 10.

9.9 The Consent Holder shall invite at least one representative from the Matakana and Rangiwaea Islands Hapū to be involved in each sampling round and must pay the reasonable costs of their involvement.

Cultural Effects

9.10 Within 12 months of completing the monitoring undertaken under Condition 9.5, the Consent Holder shall facilitate and pay the reasonable costs of the preparation by Matakana and Rangiwaea Islands Hapū of an Assessment of Cultural Effects. The objective of the Supplementary Assessment of Cultural Effects is to provide an updated assessment of the impact of the wastewater discharge on the cultural values of Matakana and Rangiwaea Islands Hapū, taking into account the results of the monitoring programme, and to provide an opportunity for the Hapū to make recommendations on measures to assist in addressing any of those adverse effects that are identified.

The Matakana and Rangiwaea Islands Hapū Supplementary Assessment of Cultural Effects should be based on the Assessment Matrix identified in the Hapū's Cultural Impact Assessment, including:

a) Putaiao - the living world
b) Tikanga Maori – cultural; kawa and tikanga;
c) Kaitiakitanga: stewardship and guardianship
d) Manaakitanga – hospitality, respect, safety, security
e) Rangātiratanga – autonomy, control, management
f) Whānaungatanga: relationships, community connectivity
g) Wairuatanga: spirituality, embedded emotion
h) Mana Whenua/Mana Moana – authority
i) Ohanga – economic; quality and quantity of natural and physical resources
j) Four well-beings: social, cultural, environment, economic.

9.11 The Supplementary Assessment of Cultural Effects must be submitted to the Regional Council as part of the Consent Holder's annual reporting required under Condition 10.

10. REPORTING

10.1 The results of the monitoring required under Conditions 8 and 9.1 shall be sent to the Regional Council on a monthly or quarterly basis as applicable

10.2 The Consent Holder shall, annually from the commencement of this resource consent and by the 1st of August each year, provide to the Regional Council and Tangata Whenua a written monitoring report that:

a) Includes all sampling and monitoring results and records as required by the Operations, Management and Environmental Plan and consent conditions covering from 1 July to 30 June of each year;
b) Provides an analysis of sampling and monitoring results and trends, exceedances and actions taken;
c) Identifies any feedback given by Matakana Island Hapū under Condition 9.7 and any requests made by the Hapū under Condition 9.8 and whether those requests have been accepted. If they have not been accepted the report shall detail why they have not been accepted;
d) Summarises the opportunities that have been provided to Tangata Whenua to be involved in the monitoring and the extent of any involvement;

e) Includes details of any complaints received regarding the operation of the WWTS and how they have been responded to and, where necessary, the actions undertaken to address the cause of the complaint;
f) Summarises the state of compliance with the conditions of these consents; and
g) Identifies any areas where improvement or upgrades are required and the plan and timeframes for implementing the necessary improvements or upgrades.

10.3 The Supplementary Assessment of Cultural Effects prepared under Condition 9.3 must be submitted to the Regional Council with that year's annual report.

10.5 Quarterly in X, X, X and X the Consent Holder shall provide a summary and explanation of all monitoring results to Tangata Whenua in a format as agreed between the Consent Holder and Tangata Whenua.

10.6 Prior to submitting the annual report to the Regional Council, the Consent Holder shall hold meetings with Tangata Whenua to present and discuss the contents of the annual report, with a particular focus on the annual monitoring results and trends.

11. OPERATION, MAINTENANCE AND ENVIRONMENTAL PLAN

11.1 The Consent Holder shall submit an Operations, Management and Environmental Plan (OMEP) for the WWTS to the Regional Council. The objective of the OMEP is to detail the procedures that will be implemented to ensure that the discharge of treated wastewater is undertaken in accordance and in compliance with conditions 8, 9 and 10 of these consents. The Odour Management Plan required under consent [x] shall also form part of the OMEP.

11.2 The OMEP shall be certified by an independent wastewater engineer with at least 15 years' experience in wastewater engineering.

11.3 The OMEP shall be submitted to the Regional Council for certification within 12 months of the date of granting of this consent. The Consent Holder shall also send a copy of the certified OMEP to Tangata Whenua.

11.4 Prior to submitting the OMEP to the Regional Council the Consent Holder must seek feedback from the Medical Officer of Health and must hold at least one meeting with Tangata Whenua to explain the OMEP and seek their feedback on its contents. When the OMEP is submitted to the Regional Council the Consent Holder must also provide a summary of the feedback, how it has been incorporated, and if it has not been incorporated, the reasons for not incorporating it.

11.5 The OMEP shall address, but may not be limited to, the following:

a) Location and design

i. A description of the entire treatment system;
ii. Plans detailing key components of the treatment and disposal facilities;
iii. A wastewater treatment plant process diagram and explanation of treatment process; and
iv. Location and specification of monitoring sites at the WWTP.

b) Operation and maintenance

i. A description of routine inspection and maintenance procedures to be undertaken with respect to the treatment plant and discharge components;
ii. The procedures for recording routine maintenance and all repairs that are undertaken;
iii. Details the pest management requirements and processes;
iv. Detail of onsite responsibilities, including names and contact telephone numbers for operational staff and a 24 hour contact telephone number;
v. Current and anticipated future untreated wastewater characteristics, including the, projected changes over time;
vi. Design parameters and key performance requirements for each stage of treatment and inter-relationships with other processes, where applicable;
vii. Proposed future changes to any treatment process(es), with reasons and means for demonstrating that expected outcomes will be achieved;
viii. Key process optimisation, operation and maintenance requirements; and
ix. A treatment plant risk register and contingency plan, including spill and breakdown response plans, in place to deal with unusual events.

c) Monitoring

i. A monitoring programme that details the monitoring requirements under Conditions 8 and 9;
ii. A process for ensuring that monitoring will be led by suitably experienced and qualified specialists;
iii. A description of how the monitoring has been designed so as to be capable of testing and verifying the performance measures listed in these resource consent conditions;
iv. A description of how the monitoring is consistent with all conditions of this resource consent;
v. The method(s) and frequency to be used for monitoring, including that undertaken for internal/management purposes;
vi. A map and, if appropriate, photos of all sampling sites;
vii. Details of the operation and maintenance of any automatic sampling or monitoring equipment;
viii. The procedures and processes for ensuring Tangata Whenua have the opportunity to be involved Tangata Whenua have the opportunity to be involved in monitoring in accordance with Conditions 8.9 and 9.9.

d) Reporting

i. A process for reporting, including how the annual plan requirements will be met;
ii. A process for non-compliance reporting;
iii. A process for audit and review of the Plan;

e) Details of complaints procedure, record keeping and response procedure.

11.6 At least three times over the duration of these consents the Consent Holder shall undertake a review of the OMEP to ensure that it remains fit for purpose. The Consent Holder must include a description of the review and any outcomes of it in the annual report required under condition 10.2, along with an updated copy of the OMEP. Conditions 10.2 and 10.4 apply to any amendments to the OMEP.

11.7 The Consent Holder must comply with the OMEP at all times.

12. TE OHU WAIORA AND FUTURE DIRECTIONS REPORT

12.1 Within 6 months of the grant of these consents, the Consent Holder shall establish Te Ohu Waiora. The role of Te Ohu Waiora is to complete an Alternatives Investigation in accordance with the Terms of Reference set out in Condition 12.7.

The objective of the Alternatives Investigation is to identify at least one appropriate and practicable alternative to the ocean outfall discharge authorised under these consents to inform the Future Directions Report required under condition 12.10.

12.2 The Consent Holder must invite:

a) at least one representative from Matakana Island Hapū
b) at least one representative from Northern Ngai Te Rangi hapū
c) at least two residents of the Katikati community that are considered by the Consent Holder to be representative of the Katikati community
d) at least one representative from Western Bay of Plenty District Council (either staff or Councillors)

to be part of Te Ohu Waiora. Te Ohu Waiora will at all times include a representative of the Consent Holder.

12.3 Once Te Ohu Waiora is formed the Consent Holder shall provide details of its membership, and any subsequent changes, to the Regional Council. The Consent Holder may, from time to time, add to or replace members of Te Ohu Waiora in consultation with Te Ohu Waiora. Any additional or replacement members of Te Ohu Waiora shall be notified to the Regional Council.

12.4 The Consent Holder shall fund the administration and operation of Te Ohu Waiora and shall meet all actual and reasonable costs incurred by Te Ohu Waiora.

12.5 The Alternatives Investigation must have regard to engineering, cultural, environmental, financial and any other relevant considerations.

12.6 Te Ohu Waiora may recommend to the Consent Holder that specialists be invited to participate in an advisory or consultative capacity seconded to Te Ohu Waiora or technical studies be commissioned, from time to time, to assist it to fulfil its role. The decision on whether to act on such a recommendation will rest with the Consent Holder after consultation with Te Ohu Waiora.

12.7 The Terms of Reference for Te Ohu Waiora shall include, but not be limited to:

a) To receive and provide information and feedback on the Alternatives Investigation including the scope and methodology of the investigations and progress of the investigations;

b) To act as the channel for broader community input as necessary; and

c) To commit to finding an agreed way forward and seeking agreement with the group on its advice to Council.

12.8 Within 12 months of the grant of these consents the Consent Holder shall submit to the Regional Council a summary of the scope and methodology of the Alternatives Investigation that has been prepared by Te Ohu Waiora.

12.9 Every two years the Consent Holder shall include in the annual report an update on progress with the Alternatives Investigation.

12.10 No later than 31 December 2026 the Consent Holder shall prepare a Future Directions Report confirming the best practicable option for future management of the discharge and the proposed pathway for implementation of the option prior to expiry of these consents. The Future Directions Report shall be informed by and take into account the outcomes of the Alternatives Investigation.

12.11 The Consent Holder shall lodge any resource consent applications and (if necessary) notices of requirement to implement the option identified in the Future Directions Report prior to the expiry of these consents.

Advice note: Te Ohu Waiora is not a decision-making body with respect to funding.

13. NOTIFICATIONS

13.1 The Consent Holder shall notify the Regional Council, the Medical Officer of Health and Tangata Whenua as soon as practicable and, as a minimum requirement, within 48 hours of any accidental discharge, plant breakdown or other contingency (Incident) which is likely to result in an exceedance of the limits of these resource consents.

13.2 Within seven working days of an Incident occurring, the Consent Holder shall submit a written report describing the Incident, the reasons for it occurring, its consequences (including the nature of any complaints), the measures taken to remedy or mitigate its effects, and any measures taken to prevent a recurrence of the Incident, including any changes proposed to the Operation, Management and Environmental Plan to the Regional Council and Tangata Whenua.

14. COMPLAINTS

14.1 The Consent Holder shall maintain and keep a Complaints Register for all complaints made about the treatment and discharge operations received by the Consent Holder. The Register shall record:

h) The date, time and duration of the event/incident that has resulted in the complaint;
i) The name and address of the complainant;
j) The location of the complainant when the event/incident was detected;
k) The outcome of all investigations including site and boundary surveys following notification of the issue including an assessment as to whether the odour was likely to have been of an intensity or nature that was offensive;
l) The possible cause of the incident;

m) The weather conditions and wind direction at the site when the incident allegedly occurred, if significant to the complaint; and
n) Any corrective action undertaken by the Consent Holder in response to the complaint.

14.2 The Complaints Register shall be made available to the Regional Council at all reasonable times.

14.3 Complaints which may indicate non-compliance with the conditions of this resource consent shall be forwarded to the Regional Council within 5 working days of the complaint being received.

15. REVIEW OF CONDITIONS

15 The Regional Council may, on the five last working days of [month], or within 2 months of receiving the annual report required under condition 10.2 serve notice of its intention to review and amend or add to the conditions of this resource consent under section 128 of the Resource Management Act 1991 for the purpose of:

a) Dealing with any adverse effect on the environment which may arise from the exercise of the resource consent and which it is appropriate to deal with at a later stage; or
b) Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
c) Requiring the Consent Holder to carry out monitoring in addition to or instead of that required by the resource consent; or
d) Addressing any issues identified in the annual reports submitted under condition 10 of this resource consent.

16 TERM OF CONSENT

16.1 The term of the consent is 20 years.

17 RESOURCE MANAGEMENT ACT CHARGES

17.1 The Consent Holder shall pay the Regional Council such administrative charges as are fixed from time to time by the Regional Council in accordance with section 36 of the RMA.

Opus International Consultants Ltd
Gartshore House, 116 Cameron Road
PO Box 646, Tauranga 3140
New Zealand

t: + 64 7 578 2089
f: +64 7 378 2086
w: www.opus.co.nz