Agenda Memorandum

Date 5 June 2018

Memorandum to
Chairperson and Members
Consents and Regulatory Committee

Subject: **Report on notified coastal permit – South Taranaki District Council Treated Hawera discharge**

Approved by: A D McLay, Director-Resource Management

B G Chamberlain, Chief Executive

Document: 2063757

Purpose

The purpose of this memorandum is to recommend that the Taranaki Regional Council approve an application by South Taranaki District Council to renew consent 5079, *to discharge treated municipal wastes from the Hawera wastewater treatment plant, as well as treated meat processing, dairy industry and other wastes, through a combined marine outfall into the Tasman Sea.*

Recommendations

That the Taranaki Regional Council:

1. receives this memorandum
2. notes the long and extensive pre hearing process that has been undertaken to successfully resolve submissions on the application
3. approves the consent application to renew consent 5079-2.

Background

South Taranaki District Council (STDC) lodged an application to discharge up to 12,000 cubic metres/day (7-day average discharge) of treated municipal wastes generated in the Hawera, Normanby and Eltham townships, as well as treated meat processing, dairy industry and other wastes brought to the site by tanker from within the wider South Taranaki District, through a combined marine outfall into the Tasman Sea.

The application was made as part of a suite of renewal applications made by Fonterra Ltd (Fonterra) for activities at the large Whareroa Dairy Factory Complex. The STDC discharge occurs through the same outfall as the Fonterra discharge. The outfall is 1.8 km long and has shoreline coastal erosion protection works in place. A joint consent process was undertaken, however submissions on the Fonterra applications were resolved via the prehearing process and Fonterra's consent was granted at the 17 October 2017 Consents and Regulatory Committee.

The application was public notified on 30 January 2016. Notice was served on 24 people and organisations. Four submissions were received from A Woodger, Nga Motu Marine Reserve Society Inc, Te Runanga o Ngati Ruanui Trust and Te Korowai o Ngaruahine Trust. All the submitters wished to be heard.

An extensive pre-hearing meeting process for the application was undertaken. All submitters withdrew their right to be heard on 1 June 2018.

Part the way through this process STDC modified the application to increase the discharges that occur above 12000 cubic metres /day, due to high rainfall inflow to the sewage system (emergency discharges). An assessment of the environmental effects of the increase was commissioned and concluded there was minimal change. The amendment was agreed by submitters and constraints on these discharges were established in consent conditions. STDC has to continue with inflow and infiltration reduction work on the sewage system during the life of the consent.

Key features of the new consent are:

- It is supported by a very comprehensive application and Assessment of Environmental Effects report which utilised some of the Council's compliance monitoring data and information;
- Approving the applications will be consistent with Council policy in the Coastal Plan;
- The installation of a dissolved air flotation unit for high fat factories to reduce fat concentrations in the overall site coastal discharge by 1 June 2021;
- A requirement to prepare a 'Wastewater Management Best Practicable Option ' report which reviews the best practicable options in municipal wastewater management and how these might be applicable at the Hawera site, and detailing any measures taken by the consent holder to improve or minimise the coastal wastewater discharge. This includes addressing high rainfall inflow and infiltration to the sewage system;
- The development of a Tangata Whenua Involvement Plan to recognise Tangata Whenua's kaitiaki responsibilities and to identify the process and extent of involvement of Te Runanga o Ngati Ruanui Trust and Te Korowai o Ngāruahine Trust in: monitoring; wastewater management; and the establishment of a Kaitiaki Group;
- A requirement for comprehensive monitoring and reporting;
- The maximum consent term (35 years) under Resource Management Act with regular opportunities for review, including to recognise changes in wastewater management;
- To recognise the consent allows waste from townships and industry to be treated and discharged which has significant local and regional economic and social benefits; and
- To acknowledge the consent was granted with key stakeholder involvement in a long, extensive and successful pre-hearing process, which avoided the need for an expensive formal hearing and the potential for uncertainty for all concerned, and provided for appropriate future Tangata Whenua involvement in the consent.

The Consents and Regulatory Committee is now required to decide whether or not to grant the applications.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 1950028: Officers' report for consent 5079-2.0

Memorandum

To	Consents and Regulatory Committee
From	Kim Giles, Consents Officer James Kitto, Science Advisor Emily Roberts, Scientific Officer - Marine Ecology
Consents	5079-2.0
Job Manager	Thomas McElroy, Environmental Scientist - Marine Biology
Document	1950028
Date	05 June 2018

To discharge through a combined marine outfall into the Tasman Sea:

- **municipal wastes (including trade wastes, meat processing and dairy industry wastes) from the reticulated sewerage systems in Hawera, Normanby and Eltham; and**
- **septic tank cleanings and other wastes transported by tanker from within the South Taranaki District;**

following treatment in the oxidation ponds at the Hawera Waste Water Treatment Plant

Applicant	South Taranaki District Council
Postal address	PO Box 902, Hawera 4640
Site location	Tasman Sea, Rifle Range Road, Hawera
Grid reference(s)	1710410E-561138N
Catchment	Tasman Sea No: 900.000
Review date(s):	June 2019 and at 6-yearly intervals thereafter
Expiry date	1 June 2052

1. Introduction

1. Beca Carter Hollings & Ferner Ltd ('Beca'), has lodged an application on behalf of South Taranaki District Council ('STDC') to discharge treated municipal wastes, as well as trade wastes, treated meat processing wastes, dairy industry wastes and other wastes, from the Hawera Wastewater Treatment Plant (HWWTP), through a combined marine outfall into the Tasman Sea.

2. The application was made as part of a joint application with Fonterra Limited (Fonterra), who sought a suite of renewal applications for activities at the large Whareroa Dairy Factory Complex. The STDC discharge occurs through the same outfall as the Fonterra discharge. Fonterra holds a separate consent for the outfall and is responsible for its operation and maintenance. The outfall is 1.8 km long and has shoreline coastal erosion protection works in place. A joint consent process was undertaken, however submissions on the Fonterra applications were resolved via the prehearing process and subsequent negotiations with the submitters and Fonterra's consent was granted by the Consents and Regulatory Committee on 17 October 2017.

3. Submissions on the STDC application were also later resolved via the prehearing process and subsequent negotiations with the submitters.

4. The renewal application includes specific reference to wastes from the reticulated sewerage system in and around Normanby township which have been part of the discharge from the outset.

5. The consent expired in June 2015 but in accordance with Section 124 of the Resource Management Act, 1991 (RMA) STDC has continued to operate under the existing consent.

6. During the consenting process the Taranaki Regional Council (Council) has extended the statutory consenting timeframes for a significant period to allow STDC to engage with stakeholders, primarily Iwi. This included allowing time to enable Ngãruahine Iwi to prepare a Cultural Impact Assessment for the proposal.

7. STDC's application was comprehensive. The application included an Assessment of Environmental Effects (AEE) report prepared by Becca in 2015 that sets out:
   - the status of the applications under the relevant Regional Plan;
   - a description of the environment;
   - a description of the proposed activities;
   - an assessment of environment effects and mitigation measures; and
   - an assessment of the regulatory context.

8. The AEE also included a number of technical reports that are listed in Table 1, and a Cultural Impact Assessment prepared by Te Runanga o Ngati Ruanui Trust. The purpose of the technical reports is described in Section 6 of this report.

9. While the technical reports were considered comprehensive, the Council reviewed and provided feedback[1] on the initial AEE in 2013. STDC has since addressed all of the issues in the revised AEEs and at the various meetings held with the interested/affected parties.

10. The application was publicly notified on 30 January 2016.

11. Pre- hearing meetings and other subsequent meetings were held between STDC and the submitters, and were facilitated by the Council.

12. Our assessment of this application takes into account the information provided in the technical reports as described below and subsequent information provided to the Council in the course of processing the application. A detailed description of the application is provided in Section 3 of this report.

1 Council Document Reference #1256519

13. During autumn/winter 2017, after public notification of the application, the HWWTP experienced several exceedances in the maximum authorised discharge volume. Investigations found that this had occurred due to continued unseasonal heavy rainfall during the months prior to the discharges. An environmental assessment of the increased discharge was undertaken and the report is noted in Table 1. As a result, STDC subsequently sought to include provision for any such future events as part of the consent renewal process. The recommendation therefore includes conditions relating to 'emergency situations' which were discussed with and agreed to by submitters.

14. The Council's Science Advisor, and Scientific Officer – Marine Ecology are familiar with the site and have confirmed details of the site and the existing environment. The Scientific Officer – Marine Ecology also provided an assessment on the draft AEE and raised matters that have been taken into account in the final application.

15. This report includes our assessment of the application under the RMA. It also includes our recommendation that the consent be issued for a duration of 35 years, subject to conditions. The recommendation has been developed, and agreed, in discussion with STDC and submitters and in accordance with the RMA and Council policy.

Table 1: Technical reports supporting the applications

AEE Reference	Technical Report	Council Document Number
Appendix C	National Institute of Water and Atmospheric Research Limited (September 2012). Site Visit Report in preparation for a Quantitative Microbial Risk Assessment.	1439859
Appendix D	National Institute of Water and Atmospheric Research Limited (May 2014). Fonterra Whareroa Dairy Factory and Hawera WWTP, Stage 2, QMRA based on the combined discharge – Prepared for Fonterra Cooperative Group Limited and South Taranaki District Council.	1439860
Appendix G	Cawthron Institute (November 2014). Whareroa Marine Outfall Ecological Investigation 2012 – Revised Report.	1439865
Appendix H	Rob Greenaway and Associates (August 2013). Fonterra / South Taranaki District Council - Whareroa Coastal Outfall and Freshwater Discharges - Recreation and Tourism Assessment of Effects.	1439867
Appendix K	Cultural Impact Assessment, Te Runanga o Ngati Ruanui Trust.	1439871
Appendix M	eCoast Marine Consulting and Research Limited (September 2015). Te Korowai o Ngāruahine Trust: Cultural and Environmental Impact Statement In relation to Fonterra Whareroa Dairy Factory and Hawera WWTP Reconsenting.	1630459
N/A	Graham McBride, National Institute of Water and Atmospheric Research Limited (March 2018). Revision of Qualitative Microbial Risk Assessment results reported by Palliser et al. (2014) to take account of higher effluent norovirus concentrations during times of peak discharge from the Eltham ponds.	2045609

2. History

16. The HWWTP and local setting is shown in Figure 1. The large 32 ha Fonterra Whareroa Site is also shown.

17. The Whareroa outfall pipe was commissioned in June 1997. In March 1998, consent 5079-1 was granted by the Minister of Conservation (following a hearing of the application) which required the HWWTP to discharge its wastewater through the outfall. The HWWTP was then connected to the outfall in February 2001.

18. Prior to 2001, wastewater was discharged to a small piped coastal stream which discharged to an eroded coastal gully to the beach and into the Tasman Sea. This practice resulted in public health risks and significant adverse effects on the coastal marine environment.

19. In June 2003, STDC applied to change consent 5079-1 to increase the discharge volume from 10,000 m^3 per day to 12,000 m^3 per day to allow for the additional treatment and discharge of partially treated industrial and domestic wastewater from Eltham. The consent variation was the subject of a formal hearing and the decision to grant the variation was subsequently appealed by one submitter early in the 2006-2007 period.

20. The appeal was later withdrawn in September 2007, and in October 2007 the Environment Court recommended to the Minister of Conservation (as the discharge was a restricted coastal activity) that the decision to grant the changes to consent 5079-1 stand. Approval was sought from the Department of Conservation and the variation to consent 5079-1 was granted in December 2007.

21. STDC now operates seven municipal oxidation pond wastewater treatment systems in the South Taranaki District. The HWWTP was upgraded in 2009 and treats both domestic and industrial wastewater from the Hawera, Normanby and Eltham townships, and partially treated wastewater from meat processors Silver Fern Farms and Graeme Lowe Protein Ltd. Hence the HWWTP is a significant part of the districts wastewater treatment infrastructure.

Figure 1: Site location and setting for the STDC Hawera Wastewater Treatment Plant and Fonterra Whareroa Plant (both highlighted in yellow)

3. Description of the treatment process

22. The HWWTP includes an anaerobic pond, fine screening, two facultative ponds (with surface aerators) and four maturation ponds. The system is illustrated in Figures 2 – 4.

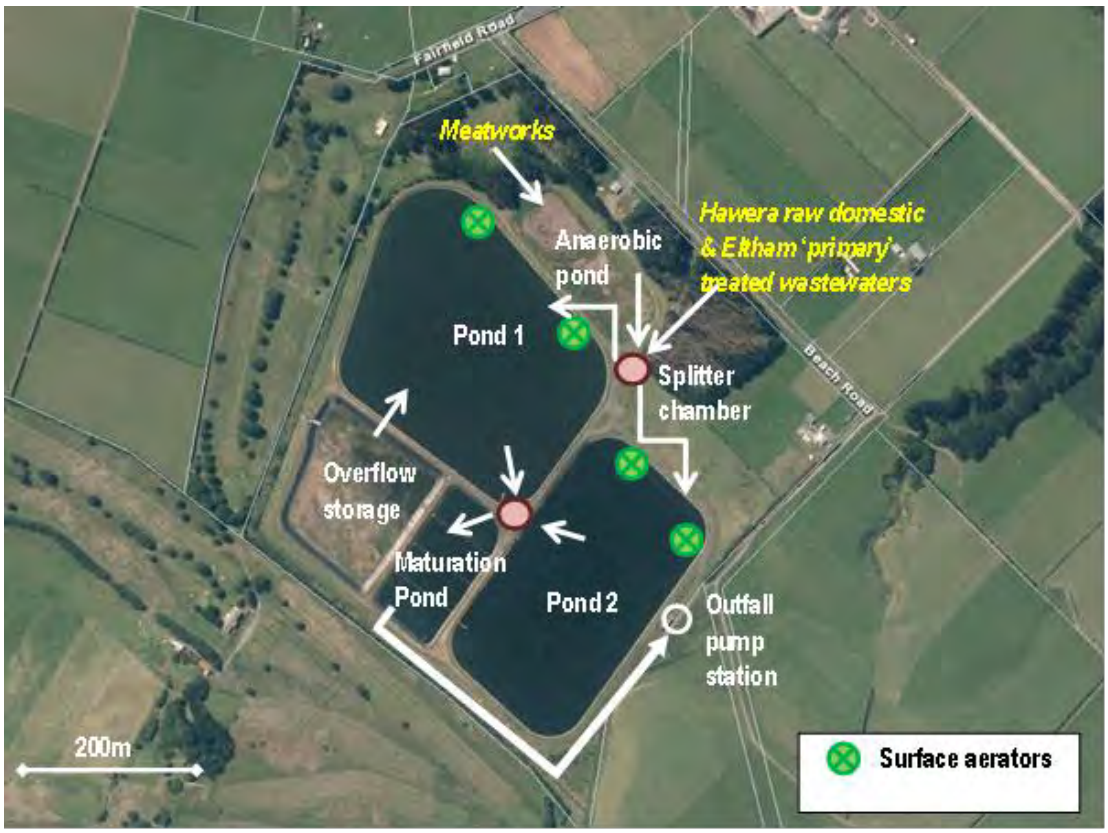

Figure 2: Configuration of the treatment system at the HWWTP

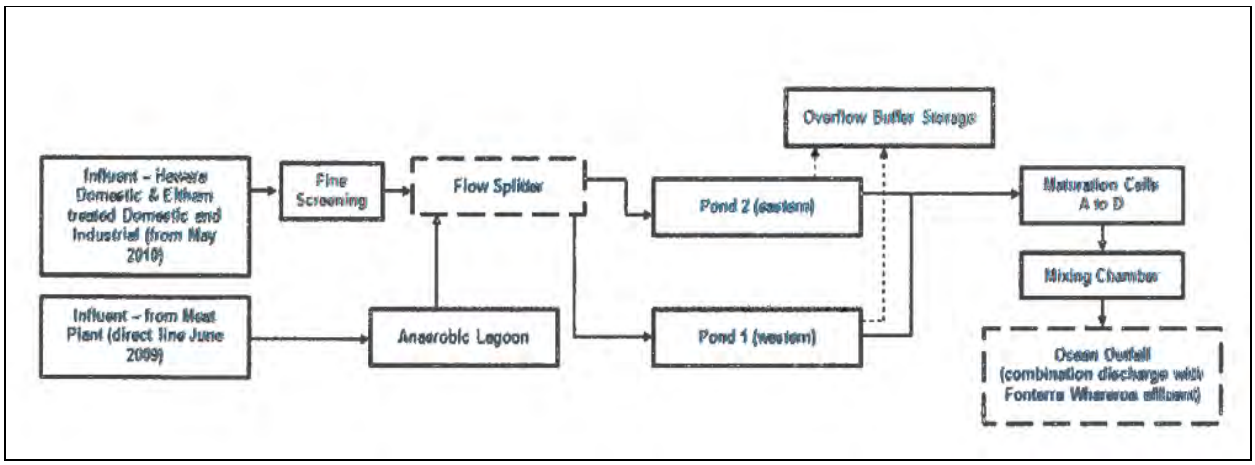

Figure 3: Schematic layout plan of the HWWTP

Figure 4: Aerial photo of the HWWTP pond system (8 March 2016)

23. Raw domestic wastewater from Hawera is contained within the eastern and western trunk sewers. The wastewater undergoes fine screening before discharging into the facultative ponds (Ponds 1 and 2). Primary treated wastewater from the single oxidation pond at Eltham also discharges intermittently to the HWWTP via pipeline, at approximately 25 l/s. Wastewater from the meat processors (Silver Fern Farms and Graham Lowe Protein) is pre-treated in an anaerobic pond to assist in the removal of organic loading before also entering the facultative ponds.

24. All wastewater streams are combined on site and then split 60:40 between Pond 1 and Pond 2, which are currently operated in parallel. The hydraulic residence time (HRT) for Pond 1 is approximately 20 days in dry weather flows. The wastewater from both ponds is then combined at the outlet points from each pond and flows through to a tertiary/maturation pond. The maturation pond was constructed in 2009 and has three baffles dividing the pond into four cells to increase the residence time within the pond. The total HRT for the ponds is estimated to be approximately 60 days.

25. Final treated wastewater from the maturation pond is gravity-fed to the pump station from where it is pumped via a 2.8 km pipeline to a mixing chamber on the cliff top near the outfall. It is then combined with wastewater from the Whareroa dairy factory for discharge via the 1,845 metre long outfall pipe.

26. During high rainfall events, effluent from Ponds 1 and 2 overflows into a temporary holding pond with a capacity of approximately 65,000 m^3, and is then pumped back into Pond 1 for treatment. Recognising that the discharge to the outfall during this time is likely to exceed the daily average of 12,000 m^3 (over a 7-day period), STDC has sought provision for a temporary increase in the average discharge volume, up to 16,000 m^3 per day, to allow for such events.

27. During emergency situations when the inflows to the wastewater treatment plant are such that the holding capacity of the temporary holding pond is exceeded, partially treated wastewater can also be discharged into a nearby tributary in accordance with consent 7520-1.

3.1 Improvements to the HWWTP

28. STDC has reconfigured the ponds several times in the last two decades. Prior to November 2000, Ponds 1 and 2 operated in parallel. After November 2000, the two ponds were operated in series to increase treatment efficiency, with treated wastewater from Pond 2 being discharged to the outfall. However since 2010, the ponds changed back to being operated in parallel, with wastewater from the two ponds now passing into the maturation pond, and then discharging through the outfall. Operating the ponds in parallel, with aeration, allows more efficient treatment of the combined wastewater streams.

29. Other ongoing improvements include:
    - installation of a grit removal unit for the anaerobic pond wastewater and plant influent;
    - replacement of the brush aerators;
    - an ongoing sludge reduction programme; and
    - reduction of infiltration.

30. A grit removal unit for the anaerobic lagoon and the plant influent has been installed and is expected to be operational by the end of 2018. Three of the six aerators were replaced with fine bubble-type aerators which are designed to have a lower energy usage while transferring similar volumes of oxygen as the brush aerators. The STDC also intends to trial a new robust high density plastic fine bubble-type aerator in 2018.

31. Pond 1 has been de-sludged as part of the sludge reduction programme. De-sludging of Pond 2 is ongoing and is undertaken on an annual basis. Improvements have also been undertaken in the Hawera and Eltham areas by lining existing pipes to reduce the infiltration of surface and groundwater into the system.

4. Fonterra discharge

32. Fonterra also discharges wastewater through the outfall in accordance with consent 1450-3. The renewal of their discharge application and the application for the marine outfall structure are addressed in a separate report, however the combined environmental effect of the two discharges has been considered in this report.

33. Fonterra discharges about 7.6 million m^3 of wastewater annually via the marine outfall to the Tasman Sea. Wastewater produced as a result of the milk processing is not currently treated but is piped into the coastal marine area via the outfall. Domestic sewage, generated at the Whareroa site, is piped to the HWWTP.

34. Fonterra has implemented a number of process improvements at the manufacturing site over the years which have led to a 31% reduction in fat lost to wastewater between 2011 and 2013. Council monitoring results confirm that there have been no incidents or public complaints of fat spillage on local beaches in recent years.

35. The consent issued to Fonterra in October 2017 also requires the installation and commissioning of a Dissolved Air Flotation Unit (DAF) before 1 August 2021, to treat all wastewater from the cream, cheese and milk treatment processing plants prior to its discharge. This will further reduce fat levels in the discharge.

36. The overall quality of the discharge is characterised by waste derived from the cleaning processes within each of the factories. As such the waste includes cleaning chemicals, minimal amounts of fat and protein and hot water. Contaminated storm water, including any particulate from the powder plants, is also pumped to the outfall.

37. The overall combined wastewater flow from the site is monitored in the outfall sump, immediately prior to the wastewater being pumped into the pipeline to the mixing chamber (Figure 5).

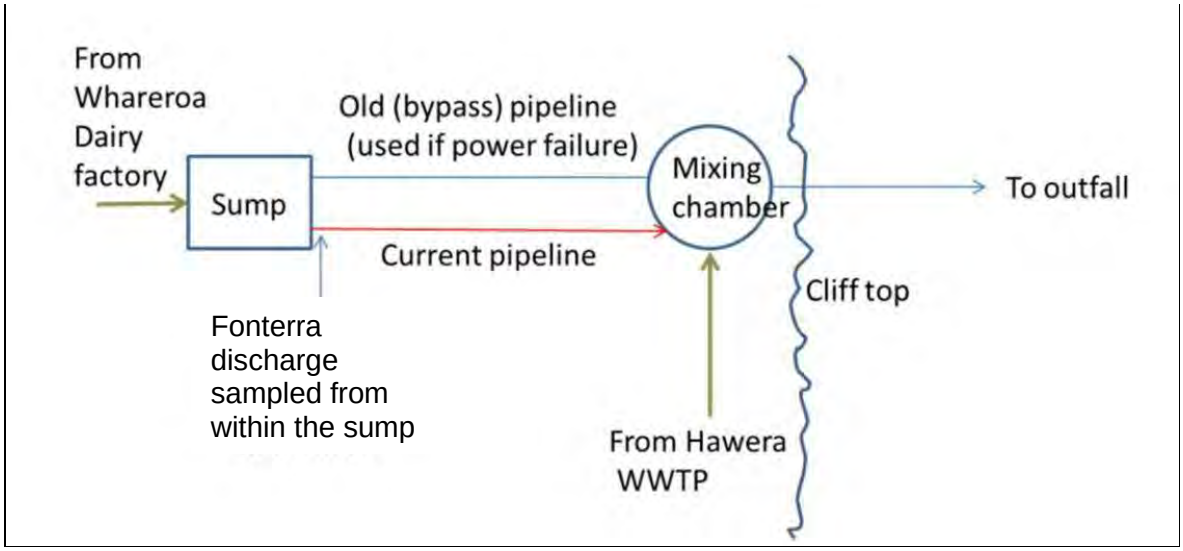

Figure 5: Schematic of contributors and pipeline for ocean outfall discharges

38. Monitoring of wastewater on a 24 hour time-proportional composite basis occurs at the main sump for temperature, pH, discharge volume, total suspended solids (TSS), chemical oxygen demand (COD) and fats. Monthly grab sampling at the sump is also carried out by the TRC for analysis of faecal coliforms, enterococci and E. coli, total grease (fat), TSS, COD, conductivity and pH. Fonterra also collects 24 hour time-composite samples at the main sump for physico-chemical and faecal indicator analysis. Such bacteria can be found in dairy factory wastewater in the absence of human wastes.

39. The average daily wastewater flow and quality characteristics over the 2016-17 dairy season (based on wastewater sampled at the site outfall sump) have been taken from the annual monitoring report. The daily volume of wastewater discharged from the Whareroa site varies seasonally. In 2016-2017, the daily volume discharged ranged from a minimum of 1,438 m^3 on 15 June 2017 to a maximum of 31,399 m^3 on 2 February 2017. The average flow in 2016/2017 was 20,996 m^3 per day, which is just over 52% of the consented maximum daily volume for the Whareroa Site.

40. Summary wastewater quality data, based on 24 hour time-proportioned composite samples, are presented below:
    - Chemical oxygen demand (COD): mean 2,397 g/m^3 , maximum 4,075 g/m^3;
    - Fat: mean 223 mg/L, maximum 600 mg/L;
    - pH (from monthly grab samples): mean 9.98, maximum 11.78, minimum 6.72;
    - Suspended solids: mean 262 mg/L, maximum 540 mg/L.

5. Wastewater Outfall

41. The existing marine outfall extends approximately 1845 metres into the sea from the South Taranaki coastline (Figure 6). It has a design capacity of 52,400 m^3/day and discharges wastewater at a depth of approximately 12.5 metres at high tide.

42. The pipeline was constructed by trenching through the wave cut platform with 1 metre of beach stone cover. The remainder of the pipeline and diffuser section was laid on the natural seabed with concrete weight blocks at 3 metre centres and pin piles at 24 metre centres.

43. The pipeline includes a 200 metre end diffuser section. The outfall pipeline to the diffuser has an internal diameter of 424 mm (500 mm outside diameter), and the diffuser has a larger internal diameter of 535 mm (630 mm outside diameter). The diffuser has 38 ports (Figure 7) placed at 5 metre intervals and has been designed to maximise the initial dilution of wastewater discharged to the receiving water. Progressing from ports nearest the shoreline to those furthest away, the as-built port diameters are:
    - 15 ports nearest the shoreline: 100 mm diameter;
    - Next 8 ports: 90 mm diameter;
    - Next 8 ports: 80 mm diameter; and
    - 7 ports furthest from the shoreline: 70 mm diameter.

44. A 150 metre long rock wall was also constructed at the landward end of the marine outfall to protect the structure from coastal erosion. It extends either side of the pipe and outwards approximately 5 metres from the cliff.

Figure 6: Approximate location of the marine outfall (red)

Figure 7: Discharge through a port on the Whareroa outfall diffuser

6. Technical Reports

45. A number of technical reports were provided with the application which are described in Table 1 of this report.

46. The purposes of these reports are summarised below.

47. The *Diving Inspection Report (*DIR) is based on an underwater inspection of the outfall by 4 divers. A hand-held diver video camera was used during the inspection to record details and status of the outfall components. The scope of inspection is detailed in Section 2. 0 of the report and encompasses a general inspection of the pipeline integrity. The inspection shows that the outfall continues to function as designed. However, several urgent areas of remedial works to maintain pipeline integrity were recommended and have been undertaken.

48. NIWA undertook a *Quantitative Microbial Risk Assessment* and produced two reports (QMRA-1 and QMRA-2). A QMRA is a means of quantifying and comparing human health risks arising from the discharge of wastewater, by using '*dose-response*', as opposed to a*n indicator*, and '*water users' exposure'* to estimate the expected number of infection or illness. While this assessment was for the combined discharge of Fonterra and STDC it principally relates to STDC Hawera WWTP application given this contains most of the microbiological contaminants. The QMRA was reviewed in March 2018, as a result of STDC's proposal to temporarily increase the average discharge volume during emergency situations.

49. The *Marine Outfall Ecological Report* (MOER) reviewed the flows and loads of wastewater discharging into the marine environment via the outfall; provided an overview of the receiving environment, and reviewed previous studies for background information. Field studies were conducted to assess values potentially affected by wastewater, namely water quality, subtidal seabed ecology and sediment quality and intertidal ecology. The report concludes that the key issues identified to cause adverse effects and a breach of regional/national criteria were largely impaired by either the quality of the wastewater or the high-energy dispersive nature of the immediate receiving environment. The report therefore recommended that the focus should be placed on ensuring that the quality of the discharge is maintained or improved, rather than monitoring of the receiving environment. It also recommended keeping up-to-date with the development of future strategies and policy activities in association with emerging organic contaminants (EOCs) loads i.e. contaminants that are not commonly monitored but have the potential to enter the environment and cause adverse ecological effects.

50. The *Tourism and Recreational Assessment Report* (TAR) considered the effects of the combined discharge of the Whareroa wastewater and the Hawera municipal wastewater on the recreation and tourism values of the relevant freshwater bodies and the Coastal Marine Area (CMA). In order to undertake the coastal marine area assessment, a 10 km radius from the diffuser was used to illustrate potential microbial contamination. Recent studies identify the risks of microbial contamination from the outfall as negligible, minimal or masked by other dominant contaminants. Most recreation activities are undertaken by locals and by recreational craft launched from Patea and Ohawe. Camping activities also attract a number of international visitors. The report shows that the discharge from the Whareroa outfall does not appear to be depressing recreation or tourism activity in the area of interest.

51. The *Economic Benefits Assessment Report (*EBAR) provides a description of the regional and district economic impact of the Whareroa plant. The report concludes that the continued operation of the Whareroa plant will maintain economic wellbeing of people and communities within the South Taranaki District and the Taranaki region as a whole.

52. The *Ngati Ruanui Cultural Impact Assessment* (NR-CIA) report sets out tangata whenua values associated with the activities of the Fonterra Whareroa and STDC activities under the RMA, particularly with respect to the combined discharge of dairy and municipal waste to the Tasman Sea. The report also identifies wahi tapu and significant sites situated in close proximity of the marine outfall.

53. The *Ngāruahine Cultural Impact Assessment (*N-CIA) reports the significance of the Tasman Sea and associated land environment to Ngāruahine, its cultural practices and beliefs. It addresses the development of solutions and activities that avoid, remedy and mitigate tangata whenua concerns and provide a foundation of knowledge that can aid the future relationship and engagements between the parties.

54. The N-CIA provides a review of both the ecological and cultural elements within the Ngāruahine rohe and the wider district and assesses the proposed activities, including the coastal discharge. It concludes that many of the proposed activities, if granted, will continue to negatively impinge on numerous cultural values of Ngāruahine, and notes that over the last 40 years, Ngāruahine values have been disregarded in terms of the various coastal polluting activities. Ngāruahine listed a number of concerns that they considered were due to be addressed by Fonterra and STDC.

7. Consultation

7.1 Consultation Strategy

55. The application states that STDC (and Fonterra) implemented a comprehensive consultation strategy as an important component of the consenting project. The consultation with interested parties, which began in March 2012 and has continued up until the lodgement of the applications, has:
    - assisted in identifying the potential effects on the environment;
    - enabled the avoidance of some potential effects on the environment; and
    - assisted in the development of mitigation measures.

56. The consultation objectives were to:
    - inform all interested parties of the proposal;
    - create opportunities for discussion, allowing for better understanding of interested parties' views;
    - enable the community to develop informed views, decisions and responses;
    - assist the refinement of the final proposal submitted for resource consent; and
    - ensure ongoing open opportunities for communication.

57. All interested parties were provided with draft copies of the AEE and technical reports, to enable all parties to contribute in a timely way during the feedback and discussion process. The feedback has been used to shape the technical investigations and AEE, thereby addressing all the concerns raised by all parties.

58. The consultation is summarised in Table 2.

Table 2: Key stakeholder consultation undertaken for both the STDC and Fonterra applications

Stakeholder Groups	Constituents
Key Stakeholders	• Fish and Game NZ • Department of Conservation • Taranaki District Health Board • Previous submitters • Will Edwards (Edwards whanau)
Iwi	• Ngati Ruanui Iwi • Nga Ruahine Iwi (Okahu Inuawai and Kanihi Umutahi hapu)
Interest Groups	• Fishing and boating clubs • Commercial fishing interests • Surfing community
Neighbours	
Wider Community	

59. STDC continued consultation during the consenting period, including via the pre-hearing process, and undertakes to continue throughout the ongoing operation of the activities at the site.

60. Section 7 and Tables 7.2 and 7.3 of the applicant's AEE provide a summary of the consultation undertaken and the issues raised by the parties (including health of the ocean, reefs and marine mammals, potential for illness, alternative options, demonstration of improvements, and cumulative effects).

7.2 Statutory Acknowledgement Areas

61. The coastal marine area of Te Moananui A Kupe is a statutory acknowledgment area of Ngati Ruanui. As such the Crown acknowledges the statement by Ngati Ruanui of the cultural, spiritual, historical, and traditional association of Ngati Ruanui with the Te Moananui A Kupe:

> *The resources found within Te Moananui A Kupe have, since time immemorial, provided the people of Ngati Ruanui with a constant supply of food resources. The hidden reefs provided koura, paua, kina, pupu, papaka, pipi, tuatua, and many other species of reef inhabitants. Hapuka, moki, kanae, mako, and patiki swim freely between the many reefs that can be found stretching out into the spiritual waters of Te Moananui A Kupe and along the Ngati Ruanui coastline.*
>
> *Names such as Rangatapu, Ohawe, Tokotoko, Waihi, Waokena, Tangahoe, Manawapou, Taumaha, Manutahi, Pipiri, Kaikura, Whitikau, Kenepuru, Te Pou a Turi, Rangitawhi, and Whenuakura depict the whereabouts of either a fishing ground or fishing reef.*
>
> *All along the shoreline from Rangatapu to Whenuakura food can be gathered, depending on the tides, weather, and time of year.*
>
> *Tragedies of the sea are also linked to these reefs. Ngati Ruanui oral history records the sinking off Tangahoe of a Chinese trade ship that had just been loaded with a cargo of flax. When the bodies were recovered and brought to shore, none of them had any eyes.*

The people of Ngati Hine believe that they did something wrong and in turn were punished by the Ngati Ruanui taniwha named Toi, kaitiaki (guardian) of the fishing reefs and grounds, who is renowned to this day to eat the eyes of his victims.

62. The coastal marine area is also a statutory acknowledgment area of Ngãruahine. As such the Crown acknowledges the statement by Ngãruahine of the cultural, spiritual, historical, and traditional association of Ngãruahine with the environment. An example of this is for the Okahu-Inuawai Hapu set out below. In each Hapu's statement of association there is a reference to Tangaroa and the moana as noted below:

The tuturu takiwa of the Okahu-Inuawai hapū extends, "from seaward on the eastern mouth of the Waingongoro awa to the Maunga, thence turning following the western side of the Wairere Stream back to seaward, Tawhiti-nui, Hawaiki-nui, Tawhiti-roa, Hawaiki-roa, Tawhiti-pamamao, Hawaiki-pamamao. The hapū claim that their whanaungatanga takiwa begins "from the mouth of the Waihi Stream of Ngati Ruanui Iwi in the east, and extends to the mouth of the Inaha Stream of Ngati Manuhiakai in the west, back to seaward".

According to tribal history, the people of Okahu are the descendants of the tangata whenua tribes who arrived at Te Rangatapu aboard the waka Te Rangiuamutu, captained by Tamatea-Rokai. The tangata whenua tribes were known as Kahui-maunga, Kahui toka, Kahui-rere, Te Kahui Tuu, Maru-iwi and Te Tini-o-tai-tawaro, Te Kahui-Ruu and Te Kahui Tawake.

This hapū also claims ancestry from the Aotea Utanganui waka which was captained by Turi-te-Ariki-nui. During the fourteenth century, Turi, with his wife Rongorongo and their people, travelled south along the coast naming many places as they went including the Waingongoro River.

The relationship between the Okahu and Kanihi hapū is very strong, not only because of their physical proximity to one another, but because of their shared ancestry. Hinekoropanga the tupuna of the hapū was an important kuia not only to her hapū but she played a significant role within the tribe of Ngāruahine. Her brother was Puawhato a warrior chief and tupuna of the Kanihi-Umutahi people. Both sister and brother resided on the Waingongoro River, their Pa being adjacent to one and other. Okahutiti, which became an important Pa during the intertribal skirmishes with the Ngapuhi tribe, was the stronghold of Hinekoropanga and her people. The hapū have historically resided on the western and eastern banks of the Waingongoro River. Although they choose to identify their hapū with the name 'Okahu' they are also referred to as the Inuawai people.

Ko Te Rangatapu te Takutaimoana
Ko Te Rangatapu me Te Kawau nga Tauranga Waka
Ko Waingongoro te Awa
Ko Okahu me Inuawai nga Whenua
Ko Okahu te tangata

Several lores abound relating to Tamawhero another well known chief of this hapū. His reputation of being a person steeped in knowledge was unrivalled. One such lore relates to a taua of Nga Puhi who were making their way down the west coast of the north island with the intent to take the lands of Taranaki and in particular the Waimate Plains. Nga Puhi had heard about Tamawhero and were known to have said, "if we cannot match him in knowledge, we will defeat him in battle". The taua set about making plans to cross the Plains and in so doing taking the various Pa that stood in their way, first attacking Waimate Pa while the men were all away at a fishing expedition. Once defeated they set forth for Okahutiti. The tupuna kuia of Okahu hapū Hinekoropanga, was married to a chief of one of the neighbouring Pa that had been attacked. She was able to escape and warn the men at sea and her people of Okahutiti. A taua was formed using the menfolk of neighbouring Ngāruahine Pa, and together they defeated the Nga Puhi at Okahutiti. The name given to this battle was, Huru-pari, "the turning of the cliff".

According to traditional lore, another significant event relating to Tamawhero was the chiefs discovery of Aniwaniwa, a descendant of Takarangi and Rau-mahora. Tamawhero found Aniwaniwa, as a baby, lying in a harakeke bush. He was wrapped in a topuni, a dogskin cloak, which signified his high rank. The baby was adopted by Tamawhero and raised alongside his biological son Tonga Awhikau. Aniwanwa married Tawhirikura and a son of this marriage was the second to bear the name Te Whiti. This second Te Whiti married Whakairi and their son was named Tohu-kakahi who in turn married Rangi-kawau and their son, the third to bear the name Te Whiti, became the prophet of Parihaka.

The awa that are located within the Okahu takiwa have great spiritual importance, they are, "the blood and veins of the takutaimoana, each of them with a story to tell." The wai that flows through these awa symbolises the link between the past and the present. Each awa has its own mauri and wairua which connect the hapū with the river and the spiritual world. They are significant taonga with each providing both physical and spiritual sustenance.
The domain of Tangaroa extends from the source of these awa "te piki ake o Maunga Taranaki" to the moana. Each awa is linked and together form an entity that includes its source, and the moana. As a result the relationship the hapū have with these awa relates to the entire catchment. The tangible linkages between these awa provide the hapū with a system of ara, or pathways throughout their respective takiwa, allowing access inland. River travel was important to hapū for both economic and social reasons.

Mahinga kai

The rivers in the Okahu takiwa were abundant with fish species resources, including tunaheke, piharau, kahawai, inanga, pakotea and kokopu.

Pa tuna and hinaki were constructed all along the rivers in the Okahu takiwa, and there was much tribal lore and skill pertaining to the catching of tuna. Gathering and processing tuna was a customary practice that strengthened cultural systems and whanaungatanga. Customary management practices followed the lifecycle of the tuna, and harvesting was regulated according to the seasons. A complex system of hapū and whanau rights operated and the places where tupuna harvested their tuna were important cultural and social sites.

The resources of the wetlands including harakeke and much birdlife were also a crucial element of hapū sustenance systems. Harekeke supplied material for rongoa, weaving, construction, and trading. They also provided a habitat for many forms of life. Pukeko and native ducks were caught in the wetlands and were not only an important food source but provided the hapū with feathers which were used for many purposes.

The hapū regard all natural resources as being gifts from Atua kaitiaki. Tangaroa-i-te-Rupetu Tangaroa is the spiritual guardian of the moana and other water bodies and all that lives within them. Tane-nui-a-rangi is the spiritual guardian of the ngahere and all life forms within this environment. These guardians were central to the lives of hapū tupuna and remain culturally significant to the hapū whanau living in the present day.

Matauranga associated with the collection of resources from various awa and ngahere were central to the lives of the hapū tupuna and remains a significant part of the cultural identity of the hapū today. Matauranga and associated tikanga, kawa and karakia are all essential for maintaining customary traditions, including the ritual and tapu associated with gathering.

The hapū have cultural, spiritual, traditional and historic associations with the rivers and their environs, associated land, flora and fauna. The hapū have a responsibility as kaitiaki in accordance with their kawa and tikanga to restore, protect and manage all those natural and historic resources and sites. This relationship is as important to present day whanau as it was to their tupuna. The continued recognition of the hapū, their identity, traditions and status as kaitiaki is entwined with the rivers in their takiwa, associated lands, and associated resources.

7.3 Cultural Impact Assessment

63. Cultural Impact Assessments were prepared by Ngati Ruanui (NR-CIA) and Ngāruahine (N-CIA) (Table 1).

64. The NR-CIA identified a number of concerns held by Ngati Ruanui associated with the on-going activities, particularly the discharge of wastewater.

65. The AEE in Section 4.7 of the CIA considers the effects on cultural values. Section 4.7.7 states that all the issues in the CIA for Ngati Ruanui have been addressed in the final AEE and technical assessments. Concerns were raised in the CIA and mitigation measures proposed. A key concern was the deterioration of Pukeroa Reef and the inability of iwi to gather kaimoana. A 'mauri model' for environmental management that recognises matauranga maori was needed.

66. The N-CIA also identified a number of concerns held by Ngāruahine associated with the on-going activities, particularly the discharge of wastewater to the moana. A sustained reduction in the Mauri has occurred and a 'mauri model' for environmental management that recognises matauranga maori was needed. Ecosystem restoration was also required and a 'weaving' of Maori knowledge and western science was required to monitor the impacts of the discharge.

8. Activity status

67. The *Regional Coastal Plan for Taranaki* (RCP) and the *Proposed Coastal Plan for Taranaki* (PCP) detail Taranaki Regional Council objectives, policies and rules in relation to management of the coastal marine area. The RCP has been operative since 1997, and the PCP was notified in February 2018. As the application was received before this date, the PCP rules have no legal effect with respect to this application.

68. The discharge is located within the Coastal Management Area C (Open Coast). The application is a discretionary activity under rules C2.5 and C2.6 of the RCP (discharge of human sewage and other contaminants into water in the coastal marine environment).

69. The New Zealand Coastal Policy Statement 2010 (NZCPS) no longer requires Councils to provide for activities such as the discharge of human sewage into the coastal marine environment, as Restricted Coastal Activities. Therefore the proposed activity is not a Restricted Coastal Activity as currently indicated in the RCP.

9. Public Notification

70. The application was publicly notified on 30 January 2016. Notice was served on 24 people and organisations.

71. The notification decision[2] is documented separately.

72. The summary of the submissions is provided in Section 10 of this report.

10. Submissions

73. Four submissions were received and are summarised in Table 3 below. All the submitters wished to be heard.

Table 3: Summary of submissions on the application

Submitter	Discharge 5079-2	Grounds Summary
A Woodger	In opposition	Inability to make changes to match societal expectations Term
Nga Motu Marine Reserve Society Inc	In opposition	Environmental effects and insufficient waste treatment. Term
Te Runanga o Ngati Ruanui Trust	In opposition	Impact on Pukeroa Reef and cultural and spiritual values Term
Te Korowai o Ngāruahine Trust	In opposition	Impact on kaimoana and cultural and spiritual values Term

74. The Te Korowai o Ngāruahine Trust submission explicitly acknowledged the status of Ngati Ruanui as tangata whenua and their exercise of manawhenua over the area in which the consent applies.

[2] Council Document Reference #1442927

11. Pre-hearing process

11.1 Pre-hearing meeting

75. A pre-hearing meeting for the STDC and Fonterra applications was held on 21 April 2016. Present at the meeting were:

Fred McLay	Taranaki Regional Council (Chair)
Colin McLellan	Taranaki Regional Council
Victoria Araba	Taranaki Regional Council
Brent Manning	STDC
Peter Cook	STDC
Lauren Wallace	Fonterra and STDC (Legal Counsel)
Cassandra Crowley	Ngāruahine
David More	Ngāruahine
Ngapari Nui	Ngati Ruanui
Graham Young	Ngati Ruanui
Anne Scott	Nga Motu Marine Reserve Society Inc
Andrew Woodger	Individual

76. Before the meeting, and with the prior agreement of the parties, the Council had circulated a draft of conditions that could be included on any consent issued. These conditions were based substantially on those offered in the applications and provided a focus for the discussion.

77. The main issues outstanding at the end of the meeting were:
- the consent duration;
- the combined effects of the two discharges on the marine environment;
- the application of future improved technologies to lessen environmental effects and provision for this in a 35 year consent; and
- the specifics of how Iwi could be involved in compliance monitoring and as kaitiaki, and how this would be addressed in consent conditions.

78. The meeting concluded with an agreement that the conditions would be amended from those offered with the application, to those discussed at the pre-hearing meeting. The redrafted conditions would be provided to the parties with a view to possibly holding another meeting or working through changes to address issues raised in submissions.

11.2 Agreed conditions and resolution of submissions

79. STDC subsequently redrafted their offered conditions, in an attempt to address the concerns expressed by submitters. After obtaining agreement in principle from the Council for the conditions STDC provided them to the submitters on 26 July 2016. The main changes are described in the following paragraphs.

80. The revised conditions include a formal process for involvement of Iwi in the consent though its duration. This occurs through a Kaitiaki Group and a Tangata Whenua Involvement Plan.

81. The conditions also require STDC to prepare a Wastewater Treatment BPO report within one year of the consent being granted and at 6-yearly intervals thereafter, which reviews the relevant best practicable options in wastewater management and how these might be applicable to the HWWTP, and details any measures taken by the consent holder to improve or minimise the wastewater discharge over the term of the consent.

82. Provision has also been made for 'emergency situations' where the average daily discharge over any 7-day period may increase from 12,000 m^3 to 16,000 m^3 over a maximum 14 consecutive days. This is to allow for instances where STDC cannot discharge at the rate otherwise provided for due to, for example, a rainfall event beyond their control.

83. After some further discussion and modification to the detail of the proposed conditions, Iwi subsequently formally withdrew their right to be heard on 24 May 2018.

84. Nga Motu Marine Reserve Society and A Woodger also withdrew their right to be heard on 31 May 2018.

85. In withdrawing their right to be heard at a hearing, the Nga Motu Marine Reserve Society supported the imposition of conditions which require STDC to assess and implement best practicable options (BPO) over the life of the consent to improve the wastewater quality that is discharged to the ocean from the HWWTP. The Society further wished to record that it considers the BPO assessments should involve an assessment of possible biodegradable options, and could involve jointly considering both waste streams being discharged from the outfall from Fonterra's Whareroa site and the HWWTP and the use of bio digesters on each site.

12. Existing Environment

86. The HWWTP is located approximately 2km south of Hawera, and approximately 500 metres from the edge of the coastal cliffs. The surrounding land is predominantly used for dairy farming, with a generally flat topography. A public golf course is located within 500 metres of the site.

87. The marine outfall discharges approximately 1845 metres from the shoreline, near Rifle Range Road in Hawera.

88. The area is important to Ngati Ruanui iwi who are tangata whenua for the coastal marine area. It is also acknowledged that Ngāruahine have a cultural interest in the area and beyond.

89. The intertidal shoreline along the South Taranaki coastline consists of mainly hard boulders, cobbles and pebbles eroded out of the cliffs. Boulder beaches are interspersed with medium-fine black sand of volcanic origin brought to the coast by rivers draining volcanoes.

90. The applicant's AEE (Section 2.5) describes the coastal marine environment in the vicinity of the application and discharge site which is not repeated here. The area is well known to the Council from compliance monitoring and resource investigation activities over the years.

91. The coastal marine area prone to effects from the combined discharge as assessed in the technical reports encompasses the CMA between Ohawe and the Mangaroa Stream (near Kakaramea), and includes Ohawe Beach, Waingongoro River Mouth, Waihi Beach, Four Mile Reef, Tangahoe River Mouth, and Manawapou River Mouth (Figure 8).

92. The *Inventory of Coastal Areas of Local or Regional Significance in the Taranaki Region* (the Inventory) identifies areas of high value at Waingongoro River Mouth, Ohawe Beach, Four Mile Reef, Waihi Beach, and Manawapou-Tangahoe River Mouths.

93. The Waingongoro River Mouth, Ohawe Beach and Four Mile Reef have high amenity and recreational values as they are popular for swimming, fishing, surfing and seafood gathering. These areas have high cultural/historic value as they contain sites of significance, including pa/midden sites and bird remains, and high ecological values due to the abundant and diverse marine life on the reef and the presence of rare/native plant species.

94. Waihi Beach is also identified as having high recreational and cultural/historic values as the area is used for fishing, surfing and beachwalking, and contains an archeological site. The Inventory also states that the site is part of an internationally important sequence of uplifted marine terraces.

95. The Manawapou-Tangahoe River mouths have high amenity values because of their unusual landforms of stacks, pinnacles and peninsulas. They also have high cultural/historic values due to the presence of pa sites and redoubts.

96. Appendix 1A of the *Regional Fresh Water Plan for Taranaki* (RFWP) lists a number of rivers and stream catchments with high natural, ecological and amenity values. The Waingongoro River estuary and adjoining beach are highly valued for recreational uses.

97. There are 5 reefs recorded between Hawera and Tangahoe, in close proximity to the marine outfall. The applicant's AEE states that while 3 of these reefs are small, the shallow Pukeroa and Koutu Reefs, which are formed from more resistant papa and shell rock, cover several hectares. Koutu Reef is about 0.5 km south east of Pukeroa Reef. A broad continental shelf extends out to about 60 km in this zone and the seabed transitions from approximately 140 metres to 500 metres deep over a relatively short distance.

98. The density distribution in the ambient receiving water body is important for the correct prediction of wastewater discharge plume behaviour. The density properties of sea water are a function of temperature, salinity (total dissolved solids) and pressure. Further details are provided in section 2.5.2 of the applicants AEE.

Figure 8: Key local features and contact recreation and shellfish gathering sites near the outfall (from AEE Appendix D, page 33)

13. Assessment of effects

99. Fonterra and STDC have undertaken a comprehensive assessment of the environmental effects of the individual and combined discharges that are appropriate for the scale and nature of the application.

100. Technical reports were commissioned which identified both the positive and negative effects of the discharge.

101. Council staff have monitored the discharge since 1991, and have good knowledge of site processes and discharge characteristics. Assessments of the monitoring undertaken are included in the annual compliance monitoring reports that are presented to the Council and the public, and these have also been used to prepare the applicant's AEE.

102. The technical reports and compliance monitoring results are in agreement about the minor environmental effects of the discharge.

103. The applicant's AEE identifies a number of potential adverse effects that are associated with the wastewater discharge, including:
- Effects on marine water quality;
- Effects on marine ecology;
- Effects on marine mammals;
- Effects on public health;
- Effects on recreation and tourism;
- Effects on cultural values; and
- Cumulative effects.

104. The key parts of this AEE are summarised below, along with additional comments.

13.1 Effects on marine water quality

105. Generally, the discharge of wastewater into a dynamic coastal environment will result in appropriate dispersion of the wastewater. This ensures that there is no accumulation of contaminants, either in the coastal waters or in the sea floor sediment, and any consequential effects on aquatic biota will be less than minor.

106. Water clarity is a physical characteristic defined by the transparency of a waterbody. An increase in suspended solids concentration and associated turbidity generally results in a corresponding decrease in water clarity. Wastewater plumes from marine outfalls are often visible as they contain a higher concentration of suspended solids. They can also be viewed as a layer of freshwater which appears different to the surrounding salt water.

107. The report prepared by Cawthron Institute (2014) states that a benchtop seawater/wastewater dilution series was carried out to determine the amount of dilution required to achieve certain percentage changes in water clarity. The series was conducted using a 24-hour composite sample of wastewater from the HWWTP, and a 50:50 mixture of wastewater from Whareroa and the HWWTP.

108. The results show that the discharge from the HWWTP requires a dilution of 33:1 to achieve compliance with the MfE (1994) receiving water trigger level of 50% clarity after reasonably mixing (the 50% criterion was used as the receiving waters are subject to naturally highly variable clarity in this case). However in reality the two wastewaters are more likely to be mixed before discharge, therefore the 50:50 mixture dilution of 72:1 is a more representative estimate of the dilution required to achieve a 50% change in clarity.

109. Modelling shows that an initial dilution of 100:1 is achieved after reasonable mixing, therefore any adverse effects associated with changes in colour and visual clarity of the receiving waster are considered less than minor.

13.2 Effects on marine ecology

110. The marine ecosystem can be impacted by wastewater discharges. Increased turbidity, oxygen depletion due to excess organic waste discharges, reduced salinity (total dissolved solids), and toxicity can have impacts. The waters along the south Taranaki coast are usually relatively turbid due to natural erosion along the coast and re-suspension of fine sediments as a result of strong wind and wave action. Toxicity is the inherent capacity of a contaminant to cause adverse effects on a living organism. The primary toxicants with the discharges are considered to be a change in pH, ammonia and heavy metals. All of these are addressed in section 4.4.4 of the applicants AEE and are considered to be having no more than minor effects on marine biota.

111. The Council also undertakes annual marine ecological surveys to monitor any changes in ecological diversity that may be attributable to the discharge from the HWWTP. The surveys are conducted at four sites listed below including three potential impact sites, and one control site (Figure 9);
    - Waihi Reef;
    - 350 metres northwest of the outfall;
    - 200 metres southeast of the outfall; and
    - Pukeroa Reef.

Figure 9: Map of sampling sites in relation to the marine outfall

112. The mean Shannon-Weiner diversity index is used to interpret results, as this statistic incorporates both components of ecological diversity – species richness and relative abundance. The latest technical report published by the Council illustrates the comparisons between the mean number of species per quadrat and the mean Shannon-Weiner index per quadrat (spring and summer surveys) between 1986 and 2017.

113. The report states that none of the potential impact sites showed significant declines in species richness or diversity in relation to the control site. Instead, the potential impact sites located 350 metres northwest of the outfall and at Pukeroa Reef had significantly greater species richness and diversity than the control site (Waihi Reef). The potential impact site located 200 metres southeast of the outfall showed signs of recovery after having been buried by a slip in 2015.

114. The report also states that there is no evidence of the potential impact sites declining in species richness or diversity over time, relative to the control site. Therefore any adverse effects on marine ecology are considered no more than minor.

13.3 Effects on marine mammals

115. In sufficient concentrations, chemicals such as those contained in pharmaceuticals (e.g. antibiotics and oral contraceptives) as well as personal care products (e.g. cosmetics), domestic and commercial cleaning agents and pesticides, can have adverse effects on aquatic mammals (e.g. organ damage, behavioural changes etc). These chemicals can enter water bodies via wastewater discharges or stormwater runoff. However the lack of large scale heavy industrial activity in the catchment, likely reduction in pollutant concentrations in the HWWTP, as well as the high energy, dispersive marine environment, are important mitigating factors that suggest an individual marine

mammal's chance of exposure to contaminants and/or pathogens from the wastewater, directly or indirectly, is extremely low. Therefore these effects are considered no more than minor.

13.4 Effects on public health

116. Human sewage can contain a wide variety of potentially pathogenic organisms including viruses, bacteria and protozoan parasites. Pathogens can cause gastro-intestinal illnesses such as gastroenteritis, dysentery and giardiasis, and can be transmitted to humans by consumption of contaminated seafood, accidental inhalation or ingestion of contaminated sea water, or by direct exposure through ears, nose, eyes and broken skin.

117. The Council collects mussel samples from the following four shoreline sites in the vicinity of the outfall discharge (Figure 10) and test their tissue for faecal coliform concentration and trace metal concentrations:
    - SEA906049 – 350 metres northwest of the outfall;
    - SEA906062 – 1000 metres southeast of the outfall;
    - SEA906067 – 1650 metres southeast of the outfall; and
    - SEA906072 – 3200 metres southeast of the outfall.

118. The most recent Council monitoring report states that between 2002 and 2015, shellfish sampling was undertaken six times per year, at approximately two-month intervals. However following the floods of June 2015, large sections of the coastal cliffs north and south of the outfall became unstable which lead to increased erosion. A number of subsequent slips buried expanses of reef as far as the low water mark, therefore the remaining shellfish sampling scheduled for the 2015/16 period was cancelled.

119. Faecal coliform counts in shellfish tissue is measured using the most probable number (MPN) method. The annual median counts at all four sites have been within the guideline limit of 230 MPN/100 g since 2001. Since 2001, a number of samples have exceeded the maximum *E.coli* limit of 700 MPN/100 g, however these have typically followed wet weather events when faecal coliform levels in coastal water are likely to be elevated due to increased runoff from coastal streams and the Tangahoe catchment.

Figure 10: Shoreline shellfish collection sites

120. Mussel tissue is also analysed for trace metal concentrations every two years, which can provide evidence of longer term bio-accumulation of metals. Historically, concentrations of cadmium and lead have remained well below their respective limits in the Australia New Zealand Food Standards Code 2002 guidelines. Levels of arsenic have also remained below the guideline value. No guidelines exist for the remaining metals (chromium, copper, iron, mercury, nickel and zinc) however the trace metals are consistent with ranges of concentrations found in shellfish elsewhere on the Taranaki coastline.

121. Monitoring results also show that the human pathogen norovirus is present in the treated wastewater. A Quantitative Microbial Risk Assessment (QMRA) was undertaken by NIWA to assess the likely public health risk associated with the combined discharge from the Whareroa manufacturing site and the HWWTP (Appendix D of the applicants AEE).

122. In an attempt to determine the HWWTP's efficacy in deactivating viruses, monitoring of norovirus and F-RNA bacteriophage in the influent and effluent was undertaken on five occasions. The results show that the pond system reduces influent norovirus concentrations by 81% to 98%, and faecal indicator bacteria (FIB) and F-RNA bacteriophage (viral indicator) concentrations by at least 99% on average.

123. Results from models used in the QMRA predict that the wastewater discharge impinges on the following four coastal beach sites for less than 1% of the time (i.e. less than approximately 3.5 days per year):
    - Site G – east end of Pukeroa Reef, about 2 km southeast of the outfall;
    - Site H – about 4 km southeast of the outfall;
    - Site I – mouth of Tangahoe River (Mokoia Beach), about 5 km southeast of the outfall; and
    - Site J – mouth of the Mangawapou River (Manutahi Beach), about 6 km southeast of the outfall.

124. The assessment concludes that when compared with tolerable risk levels in the New Zealand water quality guidelines for recreational waters (MfE/MoH 2003), an individual's risk of illness from the discharge is very low. Mr G McBride, contributing author of the QMRA, later reviewed the results of the study to consider whether a temporary increase in discharge volume (during emergency situations) would cause any material difference to the risk calculations.

125. The review states that there is a small increase in health risks when norovirus removal efficiency is reduced, however the risks are low (usually absent) because the outfall plume seldom impacts the shore. The review therefore concluded that the assessment presented in the original study continues to apply and does not need to be amended as a result of the temporary increase proposed.

126. Following the discharge volume exceedances in autumn/winter 2017, the Council required STDC to undertake additional shellfish monitoring by testing mussel flesh for norovirus. Mussels were tested on 8 June, 25 July and 6 October 2017, and all samples came back with either low or undetectable levels of norovirus (Figure 11). The testing concluded that it is uncertain whether the positive results occurred as a result of the increased discharge volume, prolonged onshore winds or a combination of the two[3].

127. As there are no guidelines or standards relating to viruses in coastal waters or shellfish in New Zealand, it is impossible to quantify the risks associated with residual virus levels in the treated effluent. Viruses are also known to be intermittent because of their ability to persist in the environment and shellfish tissue for an extended period of time, therefore these results are only indicative.

128. It should also be noted that there are limitations associated with virus testing as the results cannot be accurately analysed for risks to human health. Therefore, as the relationship between the quantity of viruses and the risk of infection is poorly understood, it is inappropriate to place limits on viruses in the effluent at this point in time. Should the consent be granted and guidelines or standards are developed for virus testing in the future, a review of consent conditions would enable the Council to place standards on the consent during the new consent term.

[3] South Taranaki District Council Hawera Municipal Oxidation Ponds Monitoring Programme Annual Report 2016-2017

Date	Site Code	Site Description	Mussel flesh norovirus	
			GI	GII
8 June 2017	SEA906049	350 m NW of outfall	Low	Low
	SEA906067	Pukeroa Reef	Negative	Negative
25 July 2017	SEA906049	350 m NW of outfall	Low	Low
	SEA906067	Pukeroa Reef	Low	Low
6 Oct 2017	SEA906049	350 m NW of outfall	Negative	Negative
	SEA906067	Pukeroa Reef	Negative	Negative
	SEA906072	Koutu	Negative	Low

Figure 11: Norovirus levels in mussel flesh

13.5 Effects on recreation and tourism

129. The Tourism and Recreational Assessment Report considered the effects of the discharge and other activities on the recreation and tourism values of the coastal marine area. The report identified recreation and tourism values by:
    - Aerial counts of coastal recreation activity from New Plymouth to Mangaroa Stream (near Kakaramea). Eight low level flights were completed between late November 2012 and early February 2013;
    - Interviews with knowledgeable regional recreation participants and club representatives;
    - A review of recreation access opportunities;
    - A review of relevant literature, policy and regional water quality data; and
    - A review of relevant technical assessments of the outfall, abstractions and stormwater discharges for water quality, microbial contamination, and marine and freshwater ecology, as well as conversations with the authors of those reports.

130. Surfcasting, walking, surfing, swimming, fishing (from a boat) and diving (mostly for crayfish) were identified as the most popular recreational pursuits (Figure 12). Interviewees indicated that the potential for microbial contamination of water and seafood is the main potential issue associated with the discharge.

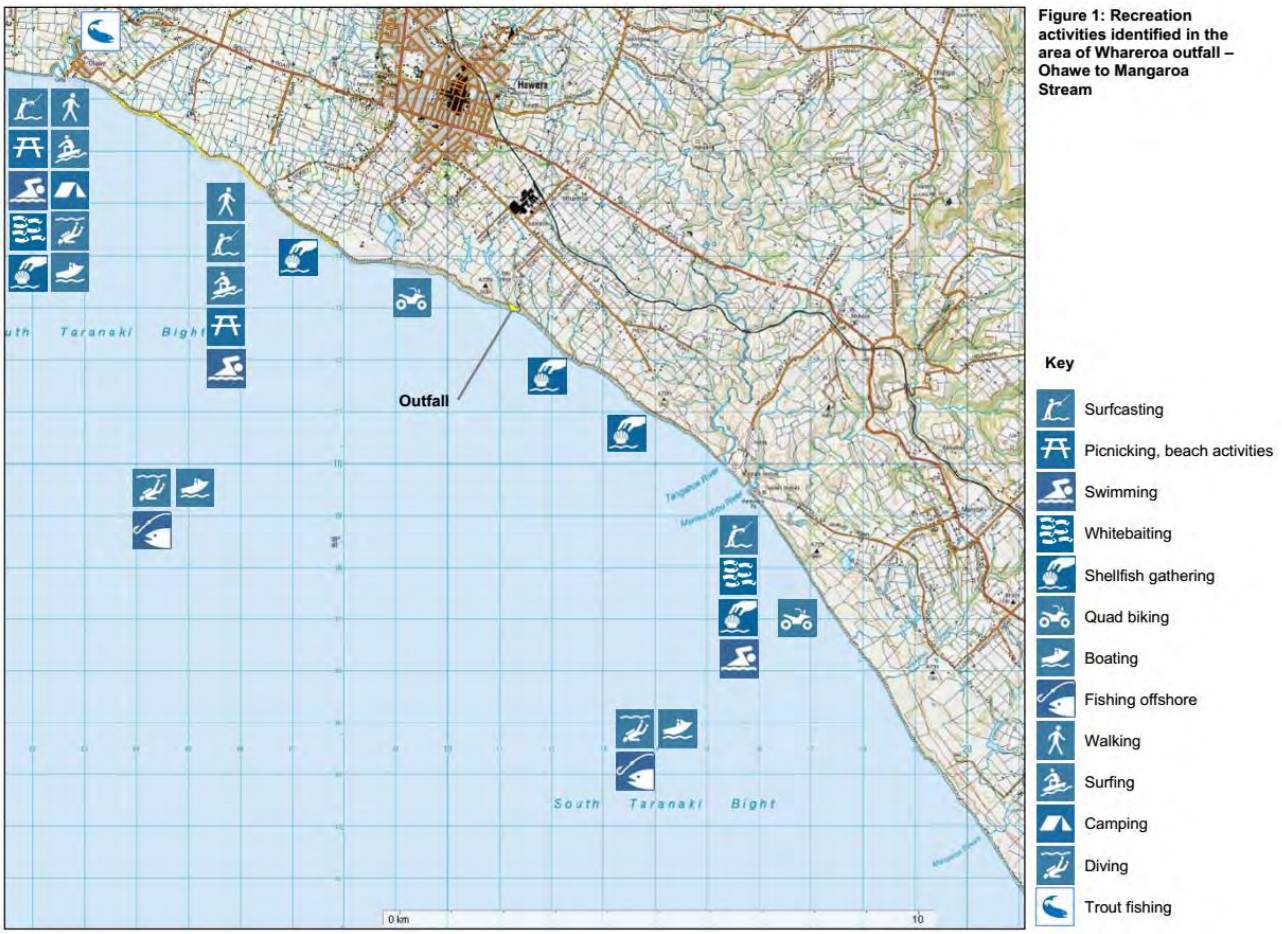

Figure 12: Recreation activities identified in the vicinity of the outfall – Ohawe to Mangaroa Stream (from applicant's AEE, Appendix H, page 7)

131. The report concludes that the discharge does not appear to be depressing recreation or tourism activity in the South Taranaki area. Consequently, the potential adverse effects of the discharge are considered less than minor on the undertakers of these activities, given the distance from the discharge points, and the level of dilution /mixing in the coastal waters.

13.6 Effects on cultural values

132. The applicant's cultural effects assessment has been based on the CIA from Ngati Ruanui and CIA from Ngāruahine. RCP Objective 5 requires recognition of and provision for the relationship and values of Iwi o Taranaki with the Taranaki CMA, in a manner reflective of their status as tangata whenua and in accordance with tikanga Maori.

133. The principal environmental issues and the STDC/Fonterra response to these are set out in section 4.7 of the applicant's AEE. Ngati Ruanui pointed out that the discharge of treated municipal wastewater to the sea is considered to be a culturally sensitive issue, and also expressed concern that the reefs (including Pukeroa Reef) continue to be adversely affected by the discharges. However in the opinion of technical experts at Cawthron, the reef is now the same as it would be if the outfall was absent, and this is supported by Council compliance monitoring data. There is no evidence of adverse effects on Pukeroa Reef such as nuisance algae, fat deposits, and bacterial growths.

134. The effects on Maori culture and traditions must be recognised and provided for in accordance with section 6(e) of the Act, which has been addressed later in the report (Section 15.5).

13.7 Cumulative Effects

135. The cumulative effects of the combined discharge from the HWWTP and the Whareroa Site have been considered above. As there are no other consented discharges in the vicinity there are no other cumulative impacts on the coastal environment to be considered.

14. Consideration of alternatives

136. Section 5.6 of the applicants AEE states that a number of reports have been prepared for STDC (between 1995 and 2009) regarding treatment and disposal options for the HWWTP. The reports include details on both pond-based and mechanical treatment systems, and also land application options, which have been summarised below.

137. In-tank treatment of municipal sewage is technically feasible at the HWWTP, which could include screening, primary sedimentation, a trickling filter, and a clarifier. Disinfection could also occur by either artificial ultra violet irradiation or by downstream ponds. However, in-tank systems produce a continuous stream of sludge that requires further treatment before disposal to landfill or composting. STDC consider that this treatment option is neither cost-effective nor justified, given the lack of environmental and public health effects associated with the discharge through the marine outfall.

138. The options for land application of treated municipal sewage were assessed by GHD in 2007. Their report concluded that a net land area in excess of 270 ha would be required to irrigate wastewater to land during the summer period. During wet periods treated effluent would need to be either stored or directed to the marine outfall. If a year round irrigation system was sought, a net area of approximately 865 ha would be required, and an estimated $70 million would be required for land acquisition and capital development.

139. Harrison and Grierson produced a further report on treatment and disposal options for the HWWTP in 2009. The report concluded that there are significant reasons why land disposal is not favoured for effluent disposal, including:
- The high volume of industrial effluent;
- The high stormwater flows during winter, especially from Hawera, which is the time of the year when land disposal is least favourable (this requires large storage volumes during winter, or a discharge to water);
- The areas surrounding the town consist of prime dairy farming land;
- Fonterra does not allow human wastewater disposal to dairy farms unless very highly treated, and this standard is likely to become more stringent in the future;
- The soils of the area are not suited for land disposal, being of relatively poor soakage. Average winter allowable irrigation rates are predicted to be very low, and at times no wastewater could be irrigated. A large storage volume will be required to store approximately 30-40 days flow over the winter;
- The value of land near the town appears to be high, and there are many smaller blocks of land (<30ha);

- Acquisition of sufficient land to carry out irrigation will be very expensive;
- Cheaper land is available further from the towns, but the cost of pumping and piping the effluent has to be taken into account;
- The use of non-dairy hill country land would require a greater gross land area, as some of the land is too steep, unsuitable or uneconomic to irrigate; and
- The plentiful rainfall most of the year means that there is little or no demand for irrigation, except during the summer, particularly for dairying.

140. The AEE states that the existing pond system is well suited to Hawera's needs as the ponds are robust, require low energy input, are simple to operate and are able to cope with hydraulic and loading peaks (disinfection of microbiological organisms is effected by solar irradiation and sludge can be stored in the ponds for between 15 and 25 years).

141. Therefore the disposal of treated wastewater via the marine outfall is considered the most cost effective and feasible option by a considerable margin.

15. Statutory assessment

15.1 Sustainable Management (Part 2 of the RMA)

142. When determining the application the Council must promote the sustainable management of natural and physical resources. Sustainable management means managing the use, development and protection of these resources in a manner which enables people and communities to provide for their social, cultural and economic wellbeing while:
   a) sustaining the potential of natural resources to meet the reasonably foreseeable need of future generations;
   b) safeguarding the life supporting capacity of water and ecosystems; and
   c) avoiding, remedying and mitigating adverse effects of the application on the environment.

143. In promoting sustainable management the Council must:
   - recognise and provide for 'matters of national importance' (listed in section 6 of the RMA);
   - have particular regard for 'other matters' (listed in section 7 of the RMA); and
   - take account of the principles of the Treaty of Waitangi (section 8 of the RMA).

15.2 Section 104 – Consideration of applications

144. Subject to Part 2 of the RMA, the Council must have regard to the matters in section 104(1). Matters relevant to these applications are:
   (a) Any actual and potential effects on the environment of allowing the activity; and
   (b) Any relevant provisions of –
      (iv) the *New Zealand Coastal Policy Statement (*NZCPS*);*
      (v) the *Regional Policy Statement* (RPS*);*
      (vi) the *Regional Coastal Plan* (RCP);
      (vii) the *Proposed Coastal Plan* (PCP); and
   (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

145. An assessment of the actual and potential effects on the environment has been made above. The provisions of the NZCPS, RPS, RCP and PCP are discussed below.

146. Section 104(1) (c) allows the consent authority to have regard to any other matter that is considered relevant and reasonably necessary to determine the application. None have been identified in submissions and in the processing of the application.

147. Section 104(2A) requires that when considering an application for a renewal of consent, the Council shall have regard to the value of the investment of the existing consent holder. In this case, STDC has already invested a significant amount of capital into infrastructure and services associated with the HWWTP. The discharge is therefore associated with a major investment by the South Taranaki district community.

15.3 Section 105 – Matters relevant to certain applications

148. Section 105 (1) of the Act states that if an application is to discharge contaminants, the consent authority must, in addition to the matters in section 104(1), have regard to:
   (a) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
   (b) the applicant's reasons for the proposed choice; and
   (c) any possible alternative methods of discharge, including discharge into any other receiving environment.

149. The nature of the discharge and the sensitivity of the receiving environments have been assessed in the assessment of environmental effects.

150. STDC's reasons for renewing the discharge from the HWWTP are to provide for the ongoing treatment of domestic wastewater in the South Taranaki region. Alternative methods of discharge have been considered and these are outlined above. There are no feasible alternative methods of discharge or receiving environments.

15.4 Section 107 – Restriction of grant of certain discharge permits

151. Section 107 (1) of the Act places restrictions on the granting of consents to discharge contaminants into water. Such permits cannot be granted by a consent authority if they cause any or all of the following effects in the receiving waters after reasonable mixing:
   (a) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
   (b) Any conspicuous change in the colour or visual clarity;
   (c) Any emission of objectionable odour;
   (d) The rendering of fresh water unsuitable for consumption by farm animals;
   (e) Any significant adverse effects on aquatic life.

152. The discharge will not result in any of the effects listed under clauses (a), (b) or (c) after reasonable mixing. Long-term monitoring undertaken by the Council has shown no change in ecological diversity as a result of the discharge therefore the continued discharge is not expected to give rise to the effects under clause (e).

15.5 Regional Coastal Plan for Taranaki

153. The RCP became operative on 21 May 1997. It is a statutory document that sets out Council policy and rules with respect to activities in the CMA.

154. The policies relevant to this application are:
    - Policy 1.1 – relating to recognition of differing coastal processes, natural values and uses of the coastal marine area;
    - Policies 2.2 and 2.3 – relating to the protection of ecological values and safeguarding the life-supporting capacity of coastal ecosystems;
    - Policies 3.1 and 3.3 – relating to the protection of social, amenity and cultural values;
    - Policies 5.1, 5.4, 5.6, 5.7 , and 5.8 – relating to the relationship of tangata whenua with the coastal marine area;
    - Policies 9.1, 9.3, 9.4, and 9.5 – relating to the adverse effects on water quality; and
    - Policy 13.1 - relating to public safety.

155. These policies are included in Appendix 1 of this report.

156. Policy 1.1 states that management of the CMA will be carried out in a way that recognises the open coastline as a high energy environment which provides habitat to marine life, and includes a range of areas that are valued for recreation and kaimoana gathering. This policy recognises the existing environment, which has been taken into account in the assessment of environmental effects.

157. Policy 2.2 aims to protect spawning and breeding areas in the open coast (Area C). The continued discharge will not cause any adverse effects on spawning and breeding areas as ongoing monitoring of the receiving environment demonstrates that the discharge is not impacting on species diversity and mammals in the vicinity of the outfall.

158. In accordance with Policy 2.3, the life-supporting capacity of ecosystems will be safeguarded as the discharge does not contain contaminants at a concentration which will cause significant adverse effects on marine life, and will not release suspended solids at a rate which may smother marine life. Long-term monitoring results also demonstrate that the discharge is not causing an adverse effect on species diversity.

159. Although the discharge may be contributing to the presence of viruses in the receiving environment, it must be recognised that the HWWTP does go some way towards reducing norovirus concentrations, and the health risks to the general public are low (usually absent) because the outfall plume seldom impacts the shore.

160. Policies 3.1 and 3.3 seek to protect areas of historical or cultural significance, and maintain or enhance amenity values. In this case, there are no sites listed on the Historic Places Trust register which could be affected by the discharge, however the discharge area is recognised as being culturally significant to local iwi. The assessment of effects above and compliance monitoring demonstrate that any effects on amenity values will be no more than minor.

161. Policies 5.1 – 5.8 seek to recognise mana moana rights of Iwi and hapu over their mahinga mataitai, the avoidance or mitigation of effects on mahinga mataitai and kaimoana, and protection of sites or features of significance to Iwi. The assessment of effects above and compliance monitoring demonstrate that any effects on these values will be no more than minor.

162. The cultural effects on Ngati Ruanui and Ngāruahine relate to the direct ecological effects of discharge, generally as described above, but have a significant added dimension resulting from their relationship with the sea. That relationship is based on the fact that the sea has sustained the Iwi, and the Iwi have been kaitiaki, for many centuries. The Iwi attain mana from this relationship, and degradation of the sea and reduced kaitiaki opportunities over recent history has diminished that mana.

163. These effects are therefore mitigated by properly and actively involving the Iwi in the consenting process and the 'life' of the consent. This is to be achieved by the formation of a 'Kaitiaki Group' and development of a 'Tangata Whenua Involvement Plan'.

164. Policy 9.1 requires waste reduction and treatment which will avoid remedy or mitigate the environmental effects of the discharge of contaminants to water and a range of factors must be considered in assessing such proposals e.g. allowance for reasonable mixing zones, cumulative effects, the actual and potential risk to human and animal/fish health from the discharge, the cultural and spiritual values of Iwi, and the use of best practicable option. These matters have been considered within the AEE above.

165. Policies 9.3 and 9.5 require water quality to be of a standard which allows the community use of the coastal marine area to continue, and to avoid significant adverse effects on the life-supporting capacity of water and aquatic ecosystems. The AEE demonstrates that the receiving waters are generally consistent with recommended water quality guidelines. The discharge is not expected to impact on the community use of the coastal marine area.

166. Policy 9.4 states that human sewage should only be discharged directly into water if it meets certain criteria i.e. that it better meets the purpose of the Act than disposal to land, and consultation has been undertaken with tangata whenua and the community. In this case, the discharge of treated sewage to water meets this criteria as an alternative land based disposal system is not feasible for the HWWTP, and the existing system provides long term sewage treatment for the South Taranaki community.

167. Policy 13.1 seeks to allow people to have safe access to and along the CMA and to allow people to make safe use of the foreshore and coastal waters for contact recreation. The ongoing discharge from the outfall does not impact on these requirements.

168. Overall, it is considered that the activities are consistent with the relevant policies of the RCP.

15.6 Proposed Coastal Plan for Taranaki

169. The PCP was publicly notified on 24 February 2018. It is a statutory document that sets out Council policy and rules with respect to activities in the CMA.

170. The policies relevant to this application are:
    - Policies 1, 2 and 4 – relating to management of the coastal environment;
    - Policies 5 and 6– relating to use and development of resources;
    - Policies 9, 11 and 16 – relating to protection, maintenance or enhancement of natural, and historic heritage and values;
    - Policies 17, 18, 19 – relating to public use and enjoyment; and
    - Policies 22, 24, 26 – relating to discharges to the coastal marine area.

171. These policies are included in Appendix 1 of this report.

172. Policies 1, 2, 4, 5, 6, 9, 11, 16, 17 and 18 essentially reiterate the policies of the RCP regarding coastal management, resource use and development, and natural, cultural and historic heritage, which have already been discussed above.

173. Policy 19 specially relates to surf breaks and significant surfing areas. In this case, the discharge from the outfall will not adversely affect the quality or consistency of the regionally significant surf break at Ohawe Beach. Access to the surf break will not be impeded, and any potential adverse effects of the discharge on water quality are considered less than minor, given the distance from the discharge point and the level of dilution /mixing in the coastal waters.

174. Policies 24 and 26 specifically relate to the discharge of treated wastewater containing human sewage. Policy 24 states that discharges of treated wastewater containing human sewage to coastal water will only occur where adequate consideration of alternatives/adequate consultation with tangata whenua have been undertaken, and there has been consultation with the general community. STDC has satisfied these requirements.

175. Policy 26 also seeks to minimise any adverse effects of existing wastewater discharges by requiring the best practicable option (BPO) to improve water quality and reduce the quantity of discharges, and in the case of existing consented overflows containing human sewage, progressively reducing and eliminating the frequency and/or volume of discharges. In this case STDC has demonstrated its use of BPO by making ongoing improvements to the HWWTP. Although STDC currently holds a consent to discharge wastewater overflows, this has not yet been exercised.

15.7 Regional Policy Statement for Taranaki

176. The RPS is a statutory document which outlines the Regional Council's policies relating to resource management in the Taranaki region. The RPS has been operative since January 2010.

177. The RPS contains a number of policies which are relevant to the applications. However, the majority of these policies outlined in the RPS are refined and expanded on in the RCP, which has already been discussed above. Accordingly, only those relevant policies of the RPS which are not already covered by the RCP are considered below.

178. The relevant policies in the RPS are Coastal Natural Character (CNC) Policies 1, 2 and 4 – relating to protecting the natural character, ecological and amenity values of the coast. The policies are included in Appendix 1 of this report.

179. CNC Policies 1 and 4 provide guidance in determining the natural character, ecological and amenity values of an area. Appendix II of the RPS shows areas which are of local, regional and national importance (drawn from the Inventory of Coastal Areas of Local and Regional Significance in the Taranaki Region (2004)) which assist with the determination of values under CNC Policy 4. The Inventory identifies the Rifle Range Road Lakes (Nowells Lakes), the Manawapou-Tangahoe river mouths and cliff tops to the south, and Waihi Beach to the north, as areas of high quality or high value.

180. The Inventory states that Nowells Lakes are valued for:
- High amenity values - significant natural area;
- Moderate recreational values - birdwatching and shooting;
- Moderate cultural/historical values - midden found; and
- High ecological/scientific values - a regionally significant wetland; important area for native water birds.

181. The Manawapou- Tangahoe river mouths and cliff tops are valued for:
- High amenity values- unusual landforms of stacks, pinnacles and peninsulas;
- Moderate recreational values- fishing;
- High cultural/historical values high - pa sites including Manawapou Pa, redoubts, traditional food gathering; and
- Moderate ecological/scientific values- area representative of coastal vegetation, presence of coastal herbs and other halophytes in sand pockets on cliff edges.

182. The Waihi Beach area is valued for:
- Moderate amenity values;
- High recreational values- fishing, surfing and beach walking;
- High cultural/historical values- archaeological site; and
- Moderate ecological/scientific values- fossil bivalves and gastropods in the cliffs; herb field; site is part of an internationally important sequence of uplifted marine terraces.

183. Any adverse effects on the natural character, ecological and amenity values of the coastal areas identified above will be absent or no more than minor. Ongoing monitoring of the receiving environment demonstrates that the discharge from the outfall is not having an adverse effect on water quality, and is not attributable to fluctuations in ecological diversity in the local intertidal marine community, which are natural.

184. CNC Policy 2 seeks to protect the natural character of the coast by ensuring that only appropriate use or development of the coastal environment is undertaken, by considering a range of matters e.g. the degree and significance of adverse effects on the natural character of the coastal environment, any possible alternative methods of discharge (where the activity involves the discharge of any contaminant), the need to protect habitat in the coastal marine area, and community benefits of the proposal.

185. In this case, it is necessary for the continued discharge to occur in the CMA as no feasible alternative option is available. The AEE also demonstrates that any effects associated with the discharges are no more than minor.

15.8 New Zealand Coastal Policy Statement 2010 (NZCPS)

186. The NZCPS is a statutory document which is required under the RMA. The purpose of the NZCPS, as stated in section 56 of the Act, is '*… to state policies in order to achieve the purpose of this Act in relation to the coastal environment of New Zealand*'.

187. The NZCPS is the only mandatory national policy statement under the RMA. It became operative on the 3 December 2010 and provides directives regarding the management of the natural and physical resources within New Zealand's coastal environment.

188. Regional policy statements and regional coastal plans must give effect to the NZCPS. As the PCP was recently notified it incorporates the policy matters contained in the NZCPS. The relevant policies have therefore been discussed above.

15.9 Other considerations

189. When considering an application for a renewal of consent, the Council must have regard to the value of the investment of the existing consent holder[4]. STDC has a major investment that is dependent on this consent.

190. The Council must have regard to the sensitivity of the receiving environment and any alternatives to the discharge proposed[5]. We have had appropriate regard to these matters. The sensitivity of the environment is assessed above, and we are satisfied that there are no more practicable alternative methods of discharge or receiving environments.

191. The RMA[6] also sets minimum water quality standards that any discharge must meet. In our assessment the activity, undertaken in accordance with the recommended consent conditions, will meet these minimum standards.

16. Summary and conclusions

192. Prior to 2001, wastewater from the HWWTP was discharged to a small coastal stream which flowed through an eroded coastal gully to the beach and into the Tasman Sea. This practice resulted in public health risks and significant adverse effects on the coastal marine environment.

193. The Whareroa outfall pipe was commissioned in June 1997, and the HWWTP was later connected to the outfall in February 2001.

194. A consent to discharge dairy site wastewater from Fonterra Whareroa through the same outfall was granted on 17 October 2017. However, the combined environmental effects of both discharges have been considered in this report.

[4] RMA Section 104 (2A)
[5] RMA Section 105(1)
[6] In section 107

195. The renewal of the STDC and Fonterra discharge applications commenced in 2015 with public notification of both applications in early 2016. Submissions were received and an extensive prehearing process was undertaken. Iwi have been involved throughout the consent process and have had a significant influence on the outcome. All submitters concerns have been addressed by way of consent conditions.

196. The main concern raised by Nga Motu Marine Reserve Society Inc and A Woodger was the proposed consent duration. Given the significant investment involved in the HWWTP, a 5 year duration as requested by their submissions, is considered unreasonable. However in order to address their concerns, recommended conditions require STDC to prepare a wastewater treatment BPO report once every 6 years which details measures that have been/will be undertaken to improve or minimise the discharge. The recommended review condition also gives the Council the ability to review, amend, or add to the consent conditions at regular intervals throughout the consent duration.

197. Long-term monitoring of the discharge and the receiving environment demonstrates that any adverse effects associated with the discharge from the HWWTP are no more than minor.

198. The discharge from the HWWTP may be contributing to the presence of viruses in the receiving environment, which has the potential to cause adverse health effects. However, as there are no guidelines or standards relating to viruses, it is impossible to quantify the risks associated with virus levels in the effluent, and it is therefore inappropriate to place virus standards on the consent at this time. Should the consent be granted and guidelines or standards are developed for virus testing in the future, it is anticipated that a review of consent conditions, in accordance with Section 128 of the Act, would enable the Council to place standards on the consent.

199. In consideration of Part 2 of the RMA, it is acknowledged that discharges of this type may have some impact on the natural character of the coastal environment. It is also acknowledged that the continued discharges will result in adverse effects on cultural values, regardless of the level of treatment. However, in the absence of an alternative land based treatment system, STDC has recognised and provided for the relationship of Maori and their culture as far as practicable by treating the effluent to a reasonably high standard, and by involving Iwi in the future of the consent through the Kaitiaki Group.

200. The requirements of the RMA and relevant policies outlined in the RCP, PCP, RPS, and NZCPS include recognition of the values and uses of the CMA; protection of ecological values; protection of social and cultural values; the relationship of tangata whenua with the CMA; adverse effects on water quality; and protection of coastal natural character. Overall, the proposal is consistent with these policies.

201. In considering this application, the following matters are notable:
- the absence of any significant adverse effects on the receiving environment;
- the existing investment into infrastructure and services associated with the HWWTP;
- the life span of the pipeline;

- the absence of a feasible alternative option for wastewater disposal in the wider Hawera district;
- Section 128 of the Act, which allows the Council to undertake a review of consent conditions (to deal with any adverse effects which may arise from the exercise of the consent at a later stage) as mentioned above.

202. Overall, the application achieves the purpose of the RMA. The collection, treatment and disposal of sewage is essential for enabling people and the community to provide for their social, economic and cultural wellbeing, and their health and safety. Long-term monitoring of the existing discharge demonstrates that the natural and physical resources are being sustained for future generations, and that the life-supporting capacity of water and ecosystems are also being maintained. Any adverse effects associated with the discharges, including those on cultural values, are avoided and/or mitigated by treating effluent to an acceptable standard.

203. Therefore it is recommended that the consents be granted subject to the conditions reasonably required to specify the nature and scale of the activity and to avoid, remedy and mitigate adverse environmental effects.

17. Consent duration and review dates

204. The application requested a 35 year consent duration, which is the maximum allowed under the RMA. Based on the minor effects, ongoing upgrades and the significant investment involved, our conclusion is that the maximum consent duration is justified.

205. An expiry date of 1 June 2052 is recommended in order to align this consent with consent 1450-3 (Fonterra's consent to discharge through the marine outfall). This is a duration of 34 years from the grant date, but 37 years from the expiry date of the previous consent. Provision to review conditions at 5-yearly intervals and to review and implement best practice wastewater management, is also recommended.

206. STDC, submitters, and the Council have agreed on consent conditions including the consent duration and the review regime.

18. Monitoring

207. Monitoring of this consent is required to ensure that the activities undertaken comply with what is authorised by the consent, and that environmental effects are consistent with the assessment presented in this report.

208. The activity associated with this consent has the potential for adverse effects that are on-going. A specific tailored monitoring programme involving inspections, sampling, testing and reporting will be required. Therefore, the existing monitoring programme (SPORDMON34) for these activities will remain.

19. Consent conditions

209. The special conditions recommended have been agreed to by the submitters and are consistent with Council policy. They are reasonably necessary to avoid, remedy or mitigate adverse environmental effects, and to ensure that the nature and scale of the activity is consistent with the application and the assessment of environmental effects presented.

210. Specific reasons for each special condition are included in the Condition Analysis Table attached.

20. Reasons for decision

211. The reasons for the decision we have recommended are detailed in this report, but in summary they are:
    a) The granting of this application is consistent with the RPS, RCP, PCP, and NZCPS and in keeping with the purpose and principles of the RMA; and
    b) Undertaking the proposed activity in accordance with the conditions recommended is unlikely to cause any significant adverse effects on the environment.

21. Recommendation

212. Our recommendation is that consent 5079-2.0, to discharge through a combined marine outfall into the Tasman Sea:

- municipal wastes (including trade wastes, meat processing and dairy industry wastes) from the reticulated sewerage systems in Hawera, Normanby and Eltham; and
- septic tank cleanings and other wastes transported by tanker from within the South Taranaki District;

following treatment in the oxidation ponds at the Hawera Waste Water Treatment Plant (the "WWTP"), be approved for a period ending on 1 June 2052, subject to the following conditions:

General condition

a. The consent holder shall pay to the Taranaki Regional Council all the administration, monitoring and supervision costs of this consent, fixed in accordance with section 36 of the Resource Management Act, 1991.

Special conditions

1. The discharge shall only occur through the outfall and diffuser located between the points defined by map references (NZTM) 1711294E-5612963N and 1711437E-5612906N.

2. Except as provided for by conditions 3 and 4, the average daily discharge over any 7-day period ending at 6.00 am New Zealand Standard Time shall not exceed 12,000 cubic metres.

3. During an emergency situation, the average daily discharge over any 7-day period ending at 6.00 am New Zealand Standard Time may may exceed 12,000 cubic metres (an "emergency discharge") provided that:

   (a) an emergency discharge does not exceed 16,000 cubic metres; and
   (b) there are no more than 4 emergency discharges in any one calendar year; and
   (c) each emergency discharge occurs for no more than 14 consecutive days.

   For the purposes of this condition, an emergency situation is the inability of the consent holder to pump and treat the discharge at the rates otherwise provided for in this consent, due to an event beyond the control of the consent holder, including: storm events, high rainfall, failure of power supply, and damage to infrastructure (pumping station, pipeline, treatment plant).

4. On each occasion that condition 3 is exercised, the consent holder shall within seven working days of the emergency discharge ceasing, provide a written report to the Chief Executive, Taranaki Regional Council giving reasons for the emergency discharge and the volume that was discharged. A copy of each report prepared in accordance with this condition shall also be provided to Tangata Whenua.

5. The dissolved oxygen concentration in the aerobic ponds shall exceed 0 gm^{-3} for minimum of 3 hours during each 24-hour period ending at 6.00 am New Zealand Standard Time.

6. The consent holder shall measure dissolved oxygen (DO) in the aerobic ponds continuously and make the measurements available to Chief Executive, Taranaki Regional Council on a secure website within 2 hours of being recorded.

7. The discharge authorised by this consent shall not give rise to any of the following effects in the Tasman Sea beyond a mixing zone of 200 metres from the centre line of the outfall diffuser:

   (a) the production of conspicuous oil or grease films, scums or foams, or floatable suspended materials;
   (b) any conspicuous change in the colour or visual clarity;
   (c) any emission of objectionable odour; or
   (d) any significant adverse effects on marine life, and in particular on: benthic communities; and/or intertidal aquatic life in and around Pukeroa Reef.

8. The consent holder shall measure and record the rate and volume of effluent discharged to an accuracy of ± 5%. Records of the date, time, rate and volume of discharge taken at intervals not exceeding 15 minutes shall be made available to the Chief Executive, Taranaki Regional Council via a secure website within 2 hours of being recorded.

9. Other than septic tank cleanings, waste transported by tanker from within the South Taranaki District may only be discharged into the WWTP if:

(a) discharge of the waste is authorised by a licence, permit or consent and/or a trade waste agreement pursuant to a Trade Waste Bylaw; and/or
(b) the nature and volume of the waste and its inclusion in the discharge does not result in any significant change to the environmental effects of the discharge; and
(c) at the end of the calendar month following the acceptance of any waste in accordance with this condition, the consent holder provides to the Chief Executive of the Taranaki Regional Council a report which details the source, nature and volume of the tanker waste that was discharged and if relevant, reference to any licence, permit or consent and/or a trade waste agreement which authorised discharge of the waste.

Monitoring and Management Plans

10. The consent holder shall prepare, implement and comply with all plans required by the conditions of this consent.

Tangata Whenua Involvement Plan

11. Within 3 months of the date of this consent, the consent holder in conjunction with Fonterra Limited shall prepare and submit to the Taranaki Regional Council a Tangata Whenua Involvement Plan ("TWIP"). The TWIP shall be developed in consultation with Te Runanga o Ngati Ruanui Trust and Te Korowai o Ngaruahine Trust (collectively referred to as "Tangata Whenua" for the purposes of this consent).

12. The purpose of the TWIP is to recognise Tangata Whenua's kaitiakitanga responsibilities over the coastal marine area impacted by the discharge authorised by this consent and to identify the process and extent of involvement by Tangata Whenua in:

(a) the development, implementation and reviews of the Monitoring Plan, Contingency Plan and Wastewater Management BPO Report;
(b) the development and implementation of any BPO identified by the Wastewater Treatment BPO Report;
(c) monitoring the conditions of this consent; and
(d) the establishment of a Kaitiaki Group.

13. As a minimum the TWIP shall detail:

(a) *Development of Plans* - A process for Tangata Whenua to have input into and provide feedback to the consent holder and Taranaki Regional Council on the development of the Monitoring Plan (condition 15), Contingency Plan (condition 16), and Wastewater Treatment BPO Report (condition 18) prior to each being lodged with the Taranaki Regional Council.

(b) *Implementation and review of Plans* - A process for Tangata Whenua to have input into and provide feedback on the implementation and reviews of:

(i) the Monitoring Plan and Contingency Plan;
(ii) monitoring of the effects of the discharge;
(iii) the Annual Performance and Data Summary Reports (condition 17); and
(iv) the Wastewater Treatment BPO Reports.

(c) *Information Sharing* - A process for ongoing information sharing between Tangata Whenua and the consent holder to enable an improved understanding of the relevant cultural values that may be affected by the activities authorised by this consent.

(d) *Kaitiaki Group* - A process to establish and maintain a Kaitiaki Group (KG), which shall include:

(i) the process by which the Taranaki Regional Council, Te Runanga o Ngati Ruanui Trust, Te Korowai o Ngaruahine Trust, Fonterra Limited and the consent holder will be invited to become members of the KG;
(ii) the process by which membership may be amended and advisers appointed and/or engaged by the KG;
(iii) the terms of reference for the KG, which shall be the conditions of this consent and the consent held by the Fonterra Limited to discharge through the same outfall (1450-3) and their implementation;
(iv) the way the KG will operate, including frequency of meetings and methods of communication between members;
(v) the reasons the KG may cease to function and the process for that.

14. The consent holder may review and amend the TWIP from time to time in consultation with Tangata Whenua. A copy of the amended plan shall be provided to the Taranaki Regional Council.

Monitoring Plan

15. Within 6 months of the date of this consent, the consent holder shall ensure a Monitoring Plan is prepared. The purpose of the Monitoring Plan is to identify the techniques, methodologies and procedures that will be employed to acquire data in relation to, and to monitor compliance with, the conditions of this consent and the effects of the discharge authorised by this consent and consent 1450-3 (held by the Fonterra Limited) on:

(a) Benthic sediments and marine ecology;
(b) Pukeroa Reef; and
(c) Shellfish microbiology.

Advice Note: *The Taranaki Regional Council assumes responsibility for the preparation and implementation of the Monitoring Plan for annual compliance purposes.*

16. At all times, the consent holder shall implement and comply with those aspects of the Monitoring Plan that the consent holder is responsible for (as detailed in the Monitoring Plan).

Contingency Plan

17. The consent holder shall prepare, maintain and regularly update a 'Contingency Plan' which details measures and procedures that will be undertaken to prevent and/or to avoid environmental effects from a spillage or any discharge of contaminants not authorised by this consent. The plan and any amended versions shall be provided to the Chief Executive of the Taranaki Regional Council.

Reporting

Annual Performance and Data Summary Report

18. Each year before 31 August, the consent holder shall prepare and provide an Annual Performance and Data Summary Report to the Chief Executive, Taranaki Regional Council. The Annual Performance and Data Summary Report shall relate to the preceding 12 month period ending 30 June and summarise:

    (a) Data relating to the performance of the outfall and major components within the WWTP, and compliance with the conditions of this consent;
    (b) Results of any monitoring undertaken in accordance with the Monitoring Plan; and
    (c) Any incidents involving spills or accidental discharges and the measures taken to avoid, remedy or mitigate the adverse environmental effects of such a spill or discharge.

Wastewater Treatment BPO Report

19. Within one year of the date of this consent and at 6-yearly intervals thereafter, the consent holder shall provide to the Chief Executive, Taranaki Regional Council and to Tangata Whenua, a Wastewater Treatment BPO Report, which:

    (a) reviews best practicable options ("BPO") for wastewater, biosolids or tradewaste treatment processes and assesses whether any BPO identified could be successfully applied to reduce the quantity of the discharge or improve the quality of the discharge from the WWTP and the financial implications of doing so, including costs and benefits;
    (b) details any measures which have been undertaken in the preceding 6 years or which are proposed to be undertaken in the following 6 years by the consent holder to implement an identified BPO and/or improve the management of inflow and infiltration in the sewer network, or wastewater, biosolids or tradewaste treatment processes; and
    (c) details any measures which have been undertaken in the preceding 6 years or which are proposed to be undertaken in the following 6 years by the consent holder to improve the management of the WWTP during storm events and/or periods of high rainfall, which are designed to minimise the number of occasions that it is necessary to exercise condition 3.

    For the purposes of this consent, best practicable option ("BPO") means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to—

    (a) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
    (b) the financial implications, and the effects on the environment, of that option when compared with other options; and
    (c) the current state of technical knowledge and the likelihood that the option can be successfully applied.

Review

20. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2019 and at 6-yearly intervals thereafter, for the purposes of:
    (a) ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time; or
    (b) implementing any BPO identified by a Wastewater Treatment BPO Report prepared in accordance with condition 19.

Recommending Officers

Kim Giles
Consents Officer

James Kitto
Science Advisor

Emily Roberts
Scientific Officer- Marine Ecologist

Condition Analysis Table:

No.	Description	Reasons for condition	Determination of compliance	Reason for limit
1	Discharge location	Specify the point of discharge for determination of mixing zone and other associated compliance	GPS check	N/A
2	Authorisation of discharge	Specify maximum discharge volume on which the assessment of effects has been based	Assessment of discharge monitoring data by Council Officers	Predicted maximum volume
3 & 4	Emergency discharges	To allow for a temporary increase in discharge volume during situations where the consent holder has no direct control	Assessment of discharge monitoring data by Council Officers	Predicted maximum volume
5 & 6	DO concentration	Reasonably necessary to ensure the aerobic ponds are functioning properly	Assessment of discharge monitoring data by Council Officers	2 hours is reasonably achievable
7	Effects on coastal waters	To provide qualitative limits on the effects of the discharge	Outfall inspections and response to any public complaints	RMA requirement
8	Measurement of discharge rate and volume	Reasonably necessary to assess compliance with conditions 2 & 3	Assessment of discharge monitoring data by Council Officers	2 hours is reasonably achievable
9	Authorisation of waste	Reasonably necessary to ensure the waste being discharged is authorised	Report provided by consent holder	1 month is reasonably achievable
10-14	Tangata Whenua Involvement Plan (TWIP)	Development and implementation of a TWIP that sets out the scope of Iwi input to the consent, including the role of the Kaitiaki Group	Provision of the TWIP	N/A
15 & 16	Monitoring Plan	Prepare and implement a monitoring plan	Receipt of the plan (and TRC implementing it)	N/A
17	Contingency Plan	A plan for any unauthorised discharges	Receipt of the plan	N/A
18	Prepare Annual Data and Performance Report	Reasonably necessary to ensure other consent conditions are being complied with	Information provided to Council	Annual reporting
19	Prepare a Wastewater Management BPO Report	Every 6 years investigate and report on relevant best practicable options in wastewater management and how these might be applicable, and detailing any measures taken by the consent holder to improve or minimise the wastewater discharge	Receipt of the report	The 6 year frequency was requested by the consent holder in order to align this process with Long Term Plan processes
20	Review	In general conditions of consent can only be reviewed if provision to do so is included in the consent. The Council's preference is to make provision to review the conditions of all consents to ensure that the conditions are effective. Also provision is made for a review associated with implementing a best practicable option in wastewater management as identified in the Wastewater Management BPO Report prepared in accordance with condition 19.	N/A	The 6 year frequency and timing of the reviews is appropriate given the duration of the consent and the likely environmental effects. This timeframe also aligns with condition 19

Appendix 1: Policies of the RCP, PCP, and RPS

Regional Coastal Plan for Taranaki (RCP)

Policy 1.1

Management of the coastal marine area will be carried out in a way that recognises that:

….

(d) The open coastline:

- *(i) is subject to a high energy westerly wave environment and the coastal land behind the foreshore is generally eroding;*
- *(ii) includes areas that are valued for recreation, particularly the beaches adjacent to urban areas or to which vehicle access exists;*
- *(iii) includes reef systems that provide habitat to marine life, and are valued by Maori for kaimoana gathering;*
- *(iv) includes a large portion of the total foreshore area, which is mostly unmodified by human activity except in the vicinity of the New Plymouth urban area, and generally is under no significant pressure for use, development or protection;*
- *(v) includes some areas of outstanding coastal value;*
- *(vi) contains fisheries that are both recreationally and commercially valuable;*
- *(vii) is utilised for defence purposes in accordance with the Defence Act 1991.*

Policy 2.2

Use, development and protection of <u>open coastal areas</u> (area C) should avoid, remedy or mitigate adverse effects on:

(a) known fish spawning areas, and in particular the snapper-trevally spawning area in the North Taranaki Bight; or

(b) hard rock habitat in parts of the coastal marine area where the seabed is predominately sandy; or

(c) marine mammal breeding and haul-out sites; or

(d) areas where seabirds congregate to feed or breed.

Policy 2.3

Use, development and protection of <u>all parts of the coastal marine area</u> (areas A, B, C and D) should:

(a) safeguard the life-supporting capacity of coastal ecosystems by:

- *(i) avoiding the release of contaminants that have significant adverse effects on marine life;*
- *(ii) where it is not practicable to avoid the discharge of contaminants, remedying or mitigating the effects of that discharge;*
- *(iii) avoiding the release of hazardous substances;*
- *(iv) avoiding, remedying or mitigating smothering of marine ecosystems, such as reef systems, that are not adapted to frequent or large-scale sediment disturbance;*
- *(v) avoiding, remedying or mitigating long-term or significant short-term adverse effects on spawning and nursery areas of marine life, feeding and roosting areas of birdlife, and seal haul-out areas;*
- *(vi) ensuring that where an area of any particular habitat type is under pressure from resource use and development, appropriate areas of such habitat remain undisturbed elsewhere in the region;*
- *(vii) maintaining natural biodiversity.*

(b) not (either on its own or in combination with other uses and developments of the coastal marine area):

(i) *risk a significant regional or national decline of an indigenous species by adversely affecting populations (particularly breeding populations) of that species; nor*

(ii) *cause a regionally or interregionally significant decline in fish or shellfish population numbers, species diversity or quality for human consumption.*

Policy 3.1

Use, development and protection of the coastal marine area should:

(a) allow existing established community uses, including utility structures, of the coastal marine area, and other lawfully established uses of the coastal marine area, that are consistent with the policies of this plan, to continue to be conducted;

(b) not duplicate a function for which existing public facilities are adequate;

(c) integrate, as appropriate, with the form and colour of the coastal environment (which in this case means the sea, foreshore and land backdrop and the way that these interact to provide the individual character of an area);

(d) avoid, remedy or mitigate adverse effects on sites or areas of historical or cultural significance;

(e) maintain or enhance the amenity values of the coastal marine area.

Policy 3.3

Regard will be had, in making coastal management decisions, to areas, places, objects or sites protected by the Historic Places Act 1993 and other areas, places, objects or sites with archaeological, historical, cultural or heritage values of regional or national importance.

Policy 5.1

Procedures will be adopted which seek to recognise and accommodate the mana moana rights of iwi and hapu over their mahinga mataitai and other taonga in the coastal marine area and their role as kaitiaki within coastal management procedures, where appropriate and consistent with the purposes of the Act.

Policy 5.4

The adverse effects of activities on mahinga mataitai and kaimoana shall be avoided or mitigated to the fullest extent practicable.

Policy 5.6

Wahi tapu and other sites or features in the coastal marine area of cultural or historical significance to iwi o Taranaki shall be protected from the effects of resource use and development, as far as practicable.

Policy 5.7

Access to mahinga mataitai and areas of cultural or historical significance to iwi o Tangata whenua Taranaki within the coastal marine area shall be maintained or enhanced, except where restrictions are appropriate to achieve the purpose of the Act, the Regional Policy Statement for Taranaki and this plan.

Policy 5.8

Opportunities for the incorporation of iwi customary knowledge about coastal resources or for using traditional methods as an alternative means of achieving sustainable management or protecting taonga in the coastal marine area, shall be considered and utilised where appropriate.

Policy 7.1

Coastal hazard protection works will be allowed only in relation to existing use or development of areas of the coastal environment in situations where the positive effects of allowing the works are significantly greater than the adverse effects. Determination of this will include a consideration of:

(a) the probability of the works succeeding;
(b) the public benefit from the use or development to be protected, in enabling the regional community to provide for its economic wellbeing, health and safety;
(c) the regional and national significance of the use or development to be protected;
(d) the effects of the protection works on the environment, including any change in the occurrence and rate of coastal erosion;
(e) measures previously taken, including decisions as to the location of the use and development, to avoid the need for coastal hazard protection works;
(f) alternatives to the development of coastal hazard protection works, and the reasons why those alternatives have not been proceeded with.

Policy 9.1

Waste reduction and treatment practices which avoid, remedy or mitigate the environmental effects of the direct discharge of contaminants into water will be required. In assessing proposals to discharge contaminants directly to water (either new discharges or renewals of existing discharges), matters to be considered will include:

(a) the need to safeguard the life-supporting capacity of water and aquatic ecosystems of the receiving environment;
(b) the allowance for reasonable mixing zones;
(c) potential for cumulative or synergetic effects;
(d) the effect on areas where shellfish are gathered for human consumption;
(e) the degree to which the needs of other water users are, or may be, compromised;
(f) the actual or potential risks to human and animal health from the discharge;
(g) the actual or potential effects on amenity and heritage values including recreational values of the receiving environment;
(h) the effect of the discharge on the natural state of the receiving water;
(i) the cultural and spiritual values of tangata whenua;
(j) measures to avoid, remedy or mitigate the effects of contaminants to be discharged;
(k) the use of the best practicable option for the treatment and disposal of contaminants including, in the case of human sewage wastewater, the use of land disposal or wetland treatment.

Policy 9.3

Discharges of contaminants or water to water should:

(a) be carried out in a way that avoids or mitigates significant adverse effects on marine biological community composition;
(b) maintain or enhance, after reasonable mixing, water quality of a standard that allows existing community use of that water for recreation, fishing or kaimoana gathering to continue;
(c) avoid, remedy or mitigate significant adverse ecological effects on estuaries or intertidal areas;
(d) be of a quality that ensures that the size or location of the zone required for reasonable mixing does not have a significant adverse effect on community use of the coastal marine area or the life-supporting capacity of water and aquatic ecosystems.

Policy 9.5

After reasonable mixing, no discharge (either by itself or in combination with other discharges) may give rise to any significant adverse effects on habitats, feeding grounds or ecosystems.

Policy 13.1

Use or development of the coastal marine area should:

(a) allow the free and safe passage of ships (including every description of boat or craft) to and from recognised launching, mooring or berthing areas;
(b) not adversely affect the functioning of navigational aids;
(c) allow people to have safe access to and along the coastal marine area;
(d) allow people to make safe use of the foreshore and coastal waters for contact recreation;
(e) avoid light emissions that could affect the safe navigation of ships; and
(f) provide for appropriate notice to be made when the navigability of an area changes as a result of that use or development.

Policy 14.1

Public access along land of the Crown or land vested in the Taranaki Regional Council in the coastal marine area shall be maintained as far as is practicable in response to resource use or development. In this respect, any application for a coastal permit seeking rights of occupation shall include a consideration of alternatives to occupation rights and shall demonstrate how granting rights to occupy is the most appropriate course of action to take.

Proposed Coastal Plan for Taranaki (PCP)

Policy 1: Coastal management areas

Manage the coastal marine area in a way that recognises that some areas have values, characteristics or uses that are more vulnerable or sensitive to the effects of some activities, or that have different management needs than other areas.

In managing the use, development and protection of resources under the Plan, recognition will be given to the following coastal management areas (identified in Schedule 1) and their distinguishing values, characteristics and uses:

(a) ***Outstanding Value**: Coastal areas of outstanding value (identified in Schedule 2) that characteristically:*
  (i) *are areas of outstanding natural character and/or outstanding natural features or landscapes;*
  (ii) *contain values and attributes that are exceptional, including in relation to landforms, land cover, biodiversity, cultural and heritage associations, and visual qualities identified in Schedule 2 (refer corresponding Policy 7);*
  (iii) *contain marine areas with legal protection, including Parininihi Marine Reserve, Ngā Motu/Sugar Loaf Islands Marine Protected Area and Tapuae Marine Reserve (identified in Schedule 1); and*
  (iv) *are iconic to the region's identity and sense of place.*

(b) ***Estuaries Unmodified**: Estuaries, not identified in (a) or (c) of this policy, that are permanently open to tidal movements and characteristically:*
  (i) *provide a natural focal point for human activity but are generally not significantly modified and are surrounded by minimal urban development and unmodified environments;*
  (ii) *have significantly different and more complex natural processes than the open coast; and*

(iii) *provide important habitats, migration paths, breeding areas and nursery areas for marine and bird life.*

(c) ***Estuaries Modified**: Pātea, Waiwhakaiho and Waitara estuaries that are permanently open to tidal movements and characteristically:*

(i) *have been modified by flood protection works and placement of structures;*

(ii) *are surrounded by urban, extensively modified environments;*

(iii) *have significantly different and more complex natural processes than the open coast; and*

(iv) *provide important habitats, migration paths, breeding areas and nursery areas for marine and bird life.*

(d) ***Open Coast**: Areas of the open coast not identified in (a),(b),(c) and (e) of this Policy that characteristically:*

(i) *are subject to a high energy westerly wave environment and the coastal land behind the foreshore is generally naturally eroding;*

(ii) *include reef systems that provide habitat to marine life, and are valued by Māori for mahinga kai;*

(iii) *include nationally and regionally important surf breaks identified in Schedule 7 (refer corresponding Policy 19); and*

(iv) *contain fisheries that are recreationally, culturally and commercially valuable.*

(e) ***Port**: Port Taranaki, which is a highly modified environment that characteristically:*

(i) *enables people and communities to provide for their economic well-being;*

(ii) *contains nationally and regionally important infrastructure;*

(iii) *contains port related activities that are accepted as appropriate uses of this coastal management area;*

(iv) *has low levels of natural character, although is located adjacent to an area of outstanding value; and*

(v) *can have significant effects on areas outside of the Port, including contributing to coastal erosion along the New Plymouth foreshore.*

Policy 2: Integrated management

Provide for the integrated management of the coastal environment by:

(f) *implementing policies under section 5.1 of the Plan in managing the effects of activities (positive and negative) undertaken in the coastal marine area on significant values and characteristics of the wider coastal environment;*

(g) *implementing policies, methods and rules in other regional plans in relation to managing adverse effects associated with diffuse and direct discharges to freshwater and air, and soil disturbance;*

(h) *taking into account the potential for cross-media effects and the connections between freshwater bodies and coastal water;*

(i) *considering the effects of activities undertaken in the coastal marine area on land or waters held or managed under other statutes, and the purposes of those statutes, including marine areas with legal protection identified in Schedule 1 and statutory acknowledgements identified in Appendix 2;*

(j) *considering the effects of activities in the coastal marine area on outstanding natural features and landscapes or areas of outstanding natural character identified in other regional or district plans;*

(k) *managing natural and physical coastal resources in a manner that has regard to the social, economic and cultural objectives and well-being of the community and the functional and/or location constraints of nationally or regionally important infrastructure; and*

(l) *working collaboratively with government departments, territorial authorities, other agencies, and tangata whenua in accordance with Policy 15, that have roles and responsibilities that contribute to, and impact on, the management of coastal resources, including where activities in the Taranaki coastal marine area may result in adverse effects, or associated use and development beyond the coastal marine area.*

Policy 4: Extent and characteristics of the coastal environment

Determine the inland extent of the coastal environment for the purposes of policies under Section 5.1 of the Plan on a case by case basis by having regard to:

(a) areas where coastal processes, influences or qualities are significant, including coastal lakes, lagoons, tidal estuaries, saltmarshes, coastal wetlands and the margins of these areas; and
(b) the geographic extent to which activities within the coastal marine area may cause adverse effects on significant values and characteristics landward of the coastal marine area.

Policy 5: Appropriate use and development of the coastal environment
Determine whether use and development of the coastal environment is in an appropriate place and form and within appropriate limits by having regard to:

(m) *the functional need for the activity to be located in the coastal marine area. Conversely, activities that do not have a functional need to be located in the coastal marine area generally should not be located there (unless the non-marine related activity complements the intended use and function of the area);*
(n) *the benefits to be derived from the activity at a local, regional and national level, including the potential contribution of aquaculture and marine based renewable energy resources;*
(o) *the appropriateness of the proposed design, methodology, whether it is the best practicable option, location or route of the activity in the context of the receiving environment and any possible alternatives;*
(p) *the degree to which the activity will recognise and provide for the relationships, uses and practices of Māori and their culture and traditions with their lands, water, sites, wāhi tapu, and other taonga in the coastal environment such as mahinga kai, tauranga waka (canoe landing sites), nga toka (rocks) and turanga ika (fishing grounds);*
(q) *the degree to which the activity will be threatened by, or contribute to, coastal hazard risk, or pose a threat to public health and safety with particular reference to Policy 20;*
(r) *the degree to which the activity contributes to the enhancement or restoration of natural or historic heritage including by buffering areas and sites of historical heritage value;*
(s) *the degree to which the activity contributes to the enhancement or restoration of public access or public use of the coast including for recreation;*
(t) *whether any landward component, development or use of land-based infrastructure or facilities associated with the activity can be appropriately provided for;*
(u) *whether the activity is for scientific investigation or educational study or research; and*
(v) *the degree and significance of actual or potential adverse effects of the activity on the environment, including consideration of:*
    (i) *cumulative effects of otherwise minor activities;*
    (ii) *the sensitivity of the environment with particular reference to Policy 1; and*
    (iii) *the efficacy of measures to avoid, remedy or mitigate such effects, or provide environmental compensation where effects cannot be remedied or mitigated.*

Policy 6: Activities important to the well-being of people and communities
Recognise and provide for new and existing infrastructure of regional importance or of significance to the social, economic and cultural well-being of people and communities in Taranaki, subject to appropriate management of adverse environmental effects.

Policy 9: Natural character and natural features and landscapes
Protect all other areas of the coastal environment not identified in Schedule 2 by:avoiding significant adverse effects, and avoiding, remedying and mitigating other adverse effects on natural character and natural features and landscapes by having regard to the extent to which the activity:

(iv) *contributes to the enhancement or restoration of natural character;*

(v) *is compatible with the existing level of modification to the environment, including by having particular regard to Policy 1;*

(vi) *is appropriate for the context of the area within the surrounding landscape, its representativeness and ability to accommodate change;*

(vii) *is of an appropriate form, scale and design to be sympathetic to the existing landforms, features and vegetation (excluding high visibility markers required for safety or conservation purposes) or is of a temporary nature and any adverse effects are of a short duration and are reversible;*

(viii) *maintains the integrity of significant areas of indigenous vegetation;*

(ix) *maintains the integrity of historic heritage;*

(x) *maintains physical, visual (including seascapes) and experiential attributes that significantly contribute to the scenic, wild or other aesthetic values of the area; and*

(xi) *alters the integrity of landforms and features, or disrupts the natural processes and ecosystems.*

Policy 11: Coastal water quality
Maintain and enhance coastal water quality by avoiding, remedying and mitigating the adverse effects of activities on:

(w) *the life-supporting capacity of coastal water;*

(x) *the mouri and wairua of coastal water;*

(y) *the integrity and functioning of natural coastal processes; and*

(z) *the ability of coastal water to provide for existing and anticipated future use by the community.*

Policy 16: Relationship of tangata whenua
Recognise and provide for the relationship of tangata whenua culture, values and traditions with the coastal environment and take into account the principles of the Treaty of Waitangi, and kaitiakitanga. The Taranaki Regional Council will provide opportunities for tangata whenua to actively participate in the resource management process where decisions are being made on issues of significance to tangata whenua by:

(aa) *taking into account any relevant iwi planning document;*

(bb) *taking into account any relevant memorandum of understanding between the Taranaki Regional Council and the iwi authority;*

(cc) *implementing the relevant legal requirements of Treaty settlements, including representation on Council committees; and taking into account other aspects of Treaty settlements including, statements of association, protection principles and statutory acknowledgements;*

(dd) *responding to requests for Mana Whakahono a Rohe to enhance the opportunities for collaboration with iwi;*

(ee) *providing for tikanga Māori and interpretation services for the use of Māori language in*

presenting evidence;

(ff) *providing for marae-based pre-hearing meetings and hearings where appropriate;*

(gg) *providing for the appointment of a person with recognised expertise in tikanga Māori to any hearing committee where a resource consent application raises significant issues for tangata whenua;*

(hh) *recognising the importance of mātauranga Māori, customary, traditional and intergenerational knowledge;*

(ii) *requiring that resource consent applications or plan change applications provide cultural impact assessments and/or archaeological assessments where appropriate; and*

(jj) *involving tangata whenua in the development of consent conditions, compliance monitoring plans and/or enforcement procedures where appropriate.*

Policy 17: Public access

Maintain and enhance public access to, along and adjacent to the coastal environment by:

(kk) *avoiding, remedying or mitigating any adverse effects of activities on public access;*

(ll) *promoting the enhancement or restoration of public access including for the connection of areas of public open space, access to mahinga kai, access to sites of historical and/or cultural importance, improving outdoor recreation opportunities, access to surf breaks and providing access for people with disabilities; and*

(mm) *only imposing a restriction on public access, including vehicles, where such a restriction is necessary to:*

- (i) *protect significant natural or historic heritage values;*
- (ii) *protect dunes, estuaries and other sensitive natural areas or habitats;*
- (iii) *protect sites and activities of cultural value to Māori;*
- (iv) *protect threatened or at risk indigenous species and rare and uncommon ecosystem types as identified in Schedule 4A;*
- (v) *protect public health or safety, including where the safety of other coastal or beach users is threatened by inappropriate use of vehicles on beaches and vessels offshore;*
- (vi) *provide for defence purposes in accordance with the Defence Act 1990 or port or airport purposes;*
- (vii) *avoid or reduce conflict between public uses of the coastal marine area and its margins;*
- (viii) *provide for temporary activities or special events;*
- (ix) *ensure a level of security consistent with the activity, including protection of equipment; or*
- (x) *provide for other exceptional circumstances where restriction to public access is justifiable;*

and alternative access routes for the public have been considered and provided where practicable.

Policy 18: Amenity values

Maintain and enhance significant amenity values by avoiding, remedying or mitigating adverse effects on:

(nn) *coastal areas of outstanding value identified in Schedule 2;*

(oo) *coastal sites with significant amenity values identified in Schedule 6 including:*

- (i) *beaches;*
- (ii) *reefs; and*

(iii) *estuaries and river mouths;*

(pp) *surf breaks identified in Schedule 7; and*

(qq) *historic heritage sites including those identified in Schedule 5.*

Policy 19: Surf breaks and Significant Surfing Area

Protect surf breaks and their use and enjoyment from the adverse effects of other activities by:

(rr) *avoiding adverse effects on:*

(i) *all nationally significant surf breaks as identified in Schedule 7; and*

(ii) *all surf breaks within the designated Significant Surfing Area as identified in Schedule 7;*

(ss) *avoiding adverse effects on all regionally significant surf breaks, identified in Schedule 7, that are outside of the Significant Surfing Area;*

unless the activity is necessary for the provision of regionally important infrastructure, avoidance of effects is not possible and adverse effects are remedied or mitigated;

(tt) *avoiding, remedying or mitigating adverse effects on all locally significant surf breaks listed in Schedule 7;*

(uu) *within the Significant Surfing Area, avoiding significant adverse effects and avoiding, remedying or mitigating other adverse effects on seascape, including development which would have an adverse effect on the remote feel of the area; and*

(vv) *in managing adverse effects in accordance with clauses (a), (b) and (c), having regard to:*

(i) *effects on the quality or consistency of the surf break by considering the extent to which the activity may: change or interrupt coastal sediment dynamics; change or interrupt swell within the swell corridor including through the reflection, refraction or diffraction of wave energy; or change the morphology of the foreshore or seabed; and*

(ii) *the effects on access to surf breaks and other qualities of surf breaks, including natural character, water quality and amenity values.*

Policy 22: Discharge of water or contaminants to coastal waters

Discharges of water or contaminants to water in the coastal marine area will:

(ww) *be of an acceptable quality with regard to:*

(i) *the sensitivity of the receiving environment;*

(ii) *the nature and concentration of the contaminants to be discharged and the efficacy of waste reduction, treatment and disposal measures;*

(iii) *the capacity of the receiving environment to assimilate the contaminants and achieve the required water quality, taking into account the potential for cumulative or synergetic effects;*

(xx) *avoid the accumulation of persistent toxic contaminants in the environment;*

(yy) *adopt the best practicable option to prevent or minimise adverse effects on the environment, having consideration to:*

(i) *discharging contaminants onto or into land above mean high water springs as an alternative to discharging contaminants into coastal waters;*

(ii) *the use of constructed wetlands or other land-based treatment systems as an alternative to discharging directly to water unless there is no other practicable option;*

(iii) *the nature of the discharge and sensitivity of the receiving environment;*

(iv) *the capital, operating and maintenance costs of alternative technical options to reduce the effects of the discharge, the effectiveness and reliability of each option, and the relative benefits to the receiving environment offered by each option; and*

(v) *the weighting of costs in proportion to any benefits to the receiving environment offered by each option;*

(zz) *be required, where appropriate, to reduce adverse environmental effects through a defined programme of works set out as a condition of consent for either new resource consents or during a renewal or review process for existing resource consents;*

(aaa) *use the smallest mixing zone necessary to achieve the required water quality in the receiving environment and minimise as far as practicable the adverse effects within the mixing zone; and*

(bbb) *avoid, remedy or mitigate adverse effects, after reasonable mixing.*

Policy 24: Discharge of treated wastewater containing human sewage

Discharges of treated wastewater containing human sewage to coastal water will only occur where:

(ccc) *an adequate consideration of alternative methods, disposal locations and routes for the discharge has been undertaken, including land disposal and wetland treatment;*

(ddd) *adequate consultation with tangata whenua has been undertaken so that their values and the effects on those values are understood; and*

(eee) *there has been consultation with the general community*

Policy 26: Improving existing wastewater discharges

The adverse effects of existing wastewater discharges to coastal water will be minimised, and:

(fff) *in the case of existing discharges from wastewater treatment plants, the best practicable option will be used to improve water quality and reduce the quantity of discharges; and*

(ggg) *in the case of existing consented wastewater overflows that contain untreated human sewage, including those occurring during or following extreme rainfall events, the frequency and/or volume of discharges should be progressively reduced and eliminated over the course of the existing consent as, in accordance with Policy 23, no further consents will be granted.*

Regional Policy Statement for Taranaki (RPS)

CNC Policy 1

Management of the coastal environment will be carried out in a manner that protects the natural character of the coastal environment from inappropriate subdivision, use, development and occupation and enhances natural character where appropriate.

In determining the natural character of the coastal environment, matters to be considered will include:

(a) the degree of modification from a natural state;

(b) the amenity values of the environment, which collectively give the coastal environment, which collectively give the coastal environment its natural character including rural amenity value;

(c) the importance of landscapes, seascapes and landforms, including visually or scientifically significant geological features and wild and scenic areas;

(d) the contribution of Taranaki's historic heritage to the natural character of the coastal environment;

(e) the degree to which the coastal environment provides for the continued functioning of ecological and physical processes including consideration of the diversity, productivity, variability and importance of marine ecosystems typical or representative of the region, and links between marine and terrestrial ecosystems;

(f) the natural quality of water and air, indigenous biodiversity values; the characteristics of special spiritual, historical or cultural significance to tangata whenua; and

(g) the degree of integration of human use, development and subdivision with the above components.

CNC Policy 2

The protection of the natural character of the coastal environment shall be achieved by having regard to the following criteria in determining appropriate subdivision, use, development or occupation of the coastal environment:

(a) the degree and significance of actual and potential adverse effects on the natural character of the coastal environment, including cumulative effects, and the efficacy of measures to avoid, remedy or mitigate adverse effects;

(b) the extent to which the subdivision, use, development or occupation recognise and provide for the relationship of tangata whenua and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga;

(c) the degree to which adverse effects on those historic heritage values that can contribute to natural character can be avoided, remedied or mitigated;

(d) the need for development or occupation to occur in the coastal environment;

(e) where it is likely that an activity will result in significant adverse effects on the environment, any possible alternative locations or methods for undertaking the activity, and where the activity involves the discharge of any contaminant, any possible alternative methods of discharges;

(f) the degree to which the subdivision, use, development or occupation will avoid adverse effects at non-coastal locations;

(g) the degree of existing modification of the coastal environment from its natural character;

(h) the degree to which the subdivision, use, development or occupation will disrupt natural processes or will be threatened by, or will contribute to, the occurrence of natural hazards, particularly coastal erosion;

(i) the degree to which the subdivision, use, development or occupation can be accommodated near existing developments and in spatially compact forms and the extent of further modification of the natural character of the coastal environment through sprawling and sporadic development;

(j) the provision of adequate services, particularly the disposal of wastes;

(k) the need to protect habitat (in the coastal marine area) of species including mobile species and those that are important for commercial, recreational, traditional or cultural purposes;

(l) the benefits to the community of the use, development or occupation of the coastal marine area;

(m) the degree to which financial contributions associated with any subdivision, use and development can be used to off-set potential or actual unavoidable adverse effects arising from those activities; and

(n) the benefits to be derived from the use and development of renewable energy sources, including national, regional and local benefits.

CNC Policy 4

Areas in the coastal environment of importance to the region will be identified and priority given to protection of the natural character, ecological and amenity values of such areas from any adverse effects arising from inappropriate subdivision, use and development.

In the assessment of areas of importance, matters to be considered will include:

(a) wetlands, estuaries or coastal lagoons and coastal turf, forest and shrublands of regional, national or international importance;

(b) their importance for marine mammals or birds, invertebrates and lizards for breeding, roosting or feeding, or habitats of threatened indigenous bird species;

(c) the existence of regionally or nationally outstanding ecosystems or communities or nationally threatened plant or animal species;

(d) scenic sites and recreational sites of outstanding or regional or national significance;

(e) historic heritage values, including archaeological sites of national or outstanding significance;

(f) the existence of nationally significant or outstanding coastal and marine landforms, landscapes, scientific features and associated processes;

(g) the cultural and spiritual values of tangata whenua;

(h) wāhi tapu and sites of importance to tangata whenua; and
(i) the existence of marine protected areas.