Todd Energy Aquatic Centre

Monitoring Programme

Annual Report

2020-2021

Technical Report 2021-25

Working with people | caring for Taranaki

Taranaki Regional Council

Taranaki Regional Council
Private Bag 713
Stratford

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Executive summary

The New Plymouth District Council (NPDC) operates the Todd Energy Aquatic Centre (the Aquatic Centre) located on Tisch Avenue, New Plymouth. Wastewater from backwashing the water filtration system and emptying the outdoor pools is discharged from the ocean outfall situated on the Kawaroa Reef foreshore, to the east of the facility. This report for the period July 2019 to June 2020 describes the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess NPDC's environmental and consent compliance performance during the period under review. The report also details the results of the monitoring undertaken and assesses the environmental effects of NPDC's activities.

During the monitoring period, New Plymouth District Council demonstrated an overall improvement required level of environmental performance.

NPDC holds two resource consents relating to the Aquatic Centre, which include a total of 13 special conditions setting out the requirements that NPDC must satisfy. NPDC holds one consent to allow them to discharge swimming pool wastewater into the Tasman Sea, and one consent to erect, place, use and maintain an ocean outfall at the site.

The Council's monitoring programme for the year under review included one site inspection, two marine ecological inspections, and two routine physicochemical samplings of the indoor or outdoor pool water, and receiving waters.

The monitoring showed that the samples from the indoor and outdoor pools and coastal waters adjacent to the outfall were compliant with consent limits, and did not appear to have any significant effects on the ecology of the Kawaroa Reef outside of the designated mixing zone.

There was one instance of non-compliance during the monitoring period, when a Council Officer discovered a discharge from the outfall was occurring outside of the authorised discharge times and was causing discolouration of the reef. The discolouration was a result of algae being water blasted from the outdoor pool surfaces. An abatement notice was issued. A follow-up ecological inspection was carried out and determined that the discharges had not had any significant adverse effects on intertidal communities of the Kawaroa Reef. NPDC is implementing measures to improve future compliance with their discharge consent.

During the year, NPDC demonstrated a level of environmental performance that required improvement and a high level of administrative performance with the resource consents.

For reference, in the 2020-2021 year, consent holders were found to achieve a high level of environmental performance and compliance for 86% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 11% of the consents, a good level of environmental performance and compliance was achieved.

In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance declined in the year under review.

This report includes recommendations for the 2021-2022 year.

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1 Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is for the period July 2020 to June 2021 by the Taranaki Regional Council (the Council) describing the monitoring programme associated with resource consents held by New Plymouth District Council (NPDC). NPDC operates the Todd Energy Aquatic Centre (the Aquatic Centre) situated on Tisch Avenue in New Plymouth.

This report covers the results and findings of the monitoring programme implemented by the Council in respect of the consents held by NPDC that relate to discharges of filter backwash and outdoor pool wastewater into the Tasman Sea and to erect, place, use and maintain an ocean outfall. This is the 21st annual report to be prepared by the Council to cover NPDC's water discharges and their effects.

1.1.2 Structure of this report

Section 1 of this report is a background section. It sets out general information about:

- consent compliance monitoring under the *Resource Management Act 1991* (RMA) and the Council's obligations;
- the Council's approach to monitoring sites though annual programmes;
- the resource consents held by NPDC for the Aquatic Centre;
- the nature of the monitoring programme in place for the period under review; and
- a description of the activities and operations conducted at the Aquatic Centre.

Section 2 presents the results of monitoring during the period under review, including scientific and technical data.

Section 3 discusses the results, their interpretations, and their significance for the environment.

Section 4 presents recommendations to be implemented in the 2021-2022 monitoring year.

A glossary of common abbreviations and scientific terms, and a bibliography, are presented at the end of the report.

1.1.3 The Resource Management Act 1991 and monitoring

The RMA primarily addresses environmental 'effects' which are defined as positive or adverse, temporary or permanent, past, present or future, or cumulative. Effects may arise in relation to:

a. the neighbourhood or the wider community around an activity, and may include cultural and social-economic effects;
b. physical effects on the locality, including landscape, amenity and visual effects;
c. ecosystems, including effects on plants, animals, or habitats, whether aquatic or terrestrial;
d. natural and physical resources having special significance (for example recreational, cultural, or aesthetic); and
e. risks to the neighbourhood or environment.

In drafting and reviewing conditions on discharge permits, and in implementing monitoring programmes, the Council is recognising the comprehensive meaning of 'effects' in as much as is appropriate for each

activity. Monitoring programmes are not only based on existing permit conditions, but also on the obligations of the RMA to assess the effects of the exercise of consents. In accordance with Section 35 of the RMA, the Council undertakes compliance monitoring for consents and rules in regional plans, and maintains an overview of the performance of resource users and consent holders. Compliance monitoring, including both activity and impact monitoring, enables the Council to continually re-evaluate its approach and that of consent holders to resource management and, ultimately, through the refinement of methods and considered responsible resource utilisation, to move closer to achieving sustainable development of the region's resources.

1.1.4 Evaluation of environmental and administrative performance

Besides discussing the various details of the performance and extent of compliance by the NPDC, this report also assigns them a rating for their environmental and administrative performance during the period under review.

Environmental performance is concerned with actual or likely effects on the receiving environment from the activities during the monitoring year. Administrative performance is concerned with the NPDC's approach to demonstrating consent compliance in site operations and management including the timely provision of information to Council (such as contingency plans and water take data) in accordance with consent conditions.

Events that were beyond the control of the consent holder and unforeseeable (that is a defence under the provisions of the RMA can be established) may be excluded with regard to the performance rating applied. For example loss of data due to a flood destroying deployed field equipment.

The categories used by the Council for this monitoring period, and their interpretation, are as follows:

Environmental Performance

High: No or inconsequential (short-term duration, less than minor in severity) breaches of consent or regional plan parameters resulting from the activity; no adverse effects of significance noted or likely in the receiving environment. The Council did not record any verified unauthorised incidents involving environmental impacts and was not obliged to issue any abatement notices or infringement notices in relation to such impacts.

Good: Likely or actual adverse effects of activities on the receiving environment were negligible or minor at most. There were some such issues noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party but these items were not critical, and follow-up inspections showed they have been dealt with. These minor issues were resolved positively, co-operatively, and quickly. The Council was not obliged to issue any abatement notices or infringement notices in relation to the minor non-compliant effects; however abatement notices may have been issued to mitigate an identified potential for an environmental effect to occur.

For example:

- High suspended solid values recorded in discharge samples, however the discharge was to land or to receiving waters that were in high flow at the time;
- Strong odour beyond boundary but no residential properties or other recipient nearby.

Improvement required: Likely or actual adverse effects of activities on the receiving environment were more than minor, but not substantial. There were some issues noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party. Cumulative adverse effects of a persistent minor non-compliant activity could elevate a minor issue to this level. Abatement notices and infringement notices may have been issued in respect of effects.

Poor: Likely or actual adverse effects of activities on the receiving environment were significant. There were some items noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party. Cumulative adverse effects of a persistent moderate non-compliant activity could elevate an 'improvement required' issue to this level. Typically there were grounds for either a prosecution or an infringement notice in respect of effects.

Administrative performance

High: The administrative requirements of the resource consents were met, or any failure to do this had trivial consequences and were addressed promptly and co-operatively.

Good: Perhaps some administrative requirements of the resource consents were not met at a particular time, however this was addressed without repeated interventions from the Council staff. Alternatively adequate reason was provided for matters such as the no or late provision of information, interpretation of 'best practical option' for avoiding potential effects, etc.

Improvement required: Repeated interventions to meet the administrative requirements of the resource consents were made by Council staff. These matters took some time to resolve, or remained unresolved at the end of the period under review. The Council may have issued an abatement notice to attain compliance.

Poor: Material failings to meet the administrative requirements of the resource consents. Significant intervention by the Council was required. Typically there were grounds for an infringement notice.

For reference, in the 2020-2021 year, consent holders were found to achieve a high level of environmental performance and compliance for 86% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 11% of the consents, a good level of environmental performance and compliance was achieved.[1]

1.2 Process description

The Aquatic Centre is located along the foreshore at Tisch Avenue, New Plymouth and consists of outdoor pools (including a main pool, diving pool and children's pools) and an indoor pool complex (Figure 1). The heated indoor aquatic centre was constructed in 1993 next to the existing outdoor facility and consists of a main pool, children's pool and spa pool.

The indoor facility has a diatomaceous earth filter which serves the main pool and four upright high pressure sand filters which serve the spa and the children's pools. At the time of construction, the diatomaceous earth filter waste was discharged into coastal waters, however this method was found to be environmentally unsatisfactory and was discontinued in late 1999. The solid waste from the diatomaceous earth filter is now removed from site using an effluent disposal contractor, and disposed of at the New Plymouth landfill.

Current wastewater management practice for the indoor pools is that backwash water from the spa and children's pools' sand filtration systems continues to be connected to the outfall and is discharged on a daily basis. The amount of water discharged is equivalent to approximately 120 L per minute and the total backwash cycle runs for around 5-10 minutes. The maximum volume of the discharge at 1,200 L is relatively insignificant in the context of the receiving environment, and the visual change is virtually inconspicuous due to the indoor nature of the pools and the frequency of backwashing, which is daily.

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[1] The Council has used these compliance grading criteria for more than 17 years. They align closely with the 4 compliance grades in the MfE Best Practice Guidelines for Compliance, Monitoring and Enforcement, 2018

Figure 1 Location of the Aquatic Centre

Photo 1 Aquatic Centre ocean outfall along the intertidal zone of the Kawaroa Reef

Discharge of wastewater from the outdoor pool complex filtration system takes place via the original ocean outfall which is situated on the foreshore to the east of the facility (Photo 1). The outfall consists of a 300 mm diameter encased concrete pipe that discharges at approximately mid-tide level. This structure was constructed in 1962 and has been in use ever since for the purpose of backwashing the outdoor pool filters. The outdoor pools are served by two large open gravity sand filters, which are located at the eastern end of the outdoor complex. These are air scoured and then backwashed through the outfall at high tide. Volumes of backwash water are significant (generally 22 m^3) and the discharge can be a muddy colour for a short time. In the peak of the season, backwashes may be as frequent as 1-2 per week, but generally it is normal to backwash the outdoor pools approximately every two weeks during the summer season (Labour weekend through to Easter).

The outdoor pools are emptied once per year, generally at the start of May, for the purpose of cleaning and maintenance. The discharge of pool water is free of chlorine, as the pools are not in use for at least a week prior to discharge. The pools are cleaned by mechanical methods, including water blasting, and do not involve the use of chemical cleaners. Mutton cloths are placed over the drains during water blasting and cleaning to catch all loose paint chips. The pool cleanings are discharged via the outfall.

Both the indoor and outdoor complexes are chlorinated using chlorine gas, which is contained in two separate 920 kg cylinders and chlorinator systems; one at the eastern boundary and one at the western boundary of the site. From time to time the chlorine gas is complemented by the manual dosing of calcium or sodium hypochlorite.

During July 2004 a medium pressure UV disinfection system was installed at the Aquatic Centre. This has resulted in savings on chemical, heating, maintenance and water costs. The use of the UV system reduces the level of chloramines (combined chlorine compounds), which are the cause of the unpleasant chlorine smells in pools. Since the installation of the system the chlorine levels in the pool have decreased by 3 to 5 times to a level typically below 0.3 ppm. The water is also clearer and less milky, with bacterial levels dropping from low to nearly zero due to the water going through the UV system several times a day.

1.3 Resource consents

NPDC holds two resource consents, the details of which are summarised in the table below. Summaries of the conditions attached to each permit are set out in Section 3 of this report.

A summary of the various consent types issued by the Council is included in Appendix I, as are copies of all permits held by NPDC in relation to the Aquatic Centre during the period under review.

Table 1 Resource consents held by NPDC in relation to wastewater discharges to the marine environment from the Aquatic Centre

Consent number	Purpose	Granted	Review	Expires
2339-4.0	To discharge public swimming pool wastewater and filter backwash wastewater via an ocean outfall into the Tasman Sea.	6 August 2014	June 2026, and in accordance with special condition 10	1 June 2032
4588-3.0	To occupy the Coastal Marine Area with an ocean outfall from the New Plymouth Aquatic Centre.	6 August 2014	June 2026	1 June 2032

1.4 Monitoring programme

1.4.1 Introduction

Section 35 of the RMA sets obligations upon the Council to gather information, monitor and conduct research on the exercise of resource consents within the Taranaki region. The Council is also required to assess the effects arising from the exercising of these consents and report upon them.

The Council may therefore make and record measurements of physical and chemical parameters, take samples for analysis, carry out surveys and inspections, conduct investigations and seek information from consent holders.

The monitoring programme for the Aquatic Centre consisted of four primary components.

1.4.2 Programme liaison and management

There is generally a significant investment of time and resources by the Council in:

- ongoing liaison with resource consent holders over consent conditions and their interpretation and application;
- discussion over monitoring requirements;
- preparation for any consent reviews, renewals or new consent applications;
- advice on the Council's environmental management strategies and content of regional plans; and
- consultation on associated matters.

1.4.3 Site inspections

The Aquatic Centre was visited five times during the monitoring period. The Aquatic Centre was visited for chemical sampling then on the next available low tide visited for a marine ecological inspection, for both the indoor and outdoor pool emptying. The aquatic centre was also visited once for a non-compliance follow up marine ecological inspection. A site inspection was carried out during one of these visits, including an inspection of the maintenance shed and the ocean outfall. With regard to the consent for the discharge to water, the main points of interest were plant processes with potential or actual discharges to receiving watercourses, including contaminated stormwater and process wastewaters. The neighbourhood was surveyed for environmental effects.

1.4.4 Chemical sampling

The Council undertook sampling of both discharges from the site, and the water quality in the receiving environment.

Sampling occurred in conjunction with one of the backwash discharge of the outdoor pools, and emptying of the outdoor pools. On both occasions, the collection of discharge samples was followed by the collection of seawater samples. All samples were analysed for chlorine, pH, oil and grease, and suspended solids.

1.4.5 Marine ecological inspections

Inspections of the marine low tide biota around the vicinity of the ocean outfall were undertaken after the backwash discharge and emptying of the outdoor pools to assess compliance with condition 6(d) of the discharge permit.

2 Results

2.1 Site inspection

A site inspection of the Aquatic Centre was conducted on 12 February 2021. The chemical storage sheds were found to be in a tidy condition with chemicals stored on wooden pallets off the ground. Overall the pool and chemical areas were tidy and in good condition.

The ocean outfall was also inspected during the site visit and found to be compliant with consent conditions. Although the structural integrity of the ocean outfall has declined in recent years, the inspection indicated little change since a 2.4 m length of the structure dislodged in the 2016-2017 year.

2.2 Chemical sampling

2.2.1 Backwash discharge sampling

On Tuesday 12 February 2021, a Council Officer visited the Aquatic Centre at 09:00 am (DST) in order to sample the backwash discharge. High tide was at 11:16 am (3.5 m). The backwash commenced at 09:16 am. The backwash discharge sample was yellow-brown in colour, slightly turbid and had a chlorine odour. A shoreline water sample was collected approximately 5 m east of the outfall at 09:40 am. The inshore waters were slightly brown-green, with moderate swell.

The results of the backwash discharge samples are presented in Table 2.

Table 2 Results of the backwash discharge sample (STW001078) and shoreline water sample (SEA902051), collected on 12 February 2021

Parameter	Unit	Backwash discharge [STW001078]	5 m east of outfall [SEA902051]	
		Result	Result	Consent limit
Temperature	°C	25.6	18.2	-
Free chlorine	g/m^3	2.02	<0.07	-
Total chlorine	g/m^3	2.15	<0.07	0.1
pH	pH	7.8	8.1	-
Suspended solids	g/m^3	<3	29	-
Oil and grease	g/m^3	35	<4	-

The backwash discharge sample contained elevated concentrations of chlorine and oil and grease (Table 2). The concentration of chlorine and oil and grease in the shoreline sample were below the laboratory detection and applicable consent limits (2339-4). The pH was within the typical range for seawater. The sample contained a high concentration of suspended solids, most likely attributed to the turbulent conditions of the high energy inshore waters along the coast. The sea did not appear discoloured or otherwise adversely affected by the discharge at the time the samples were taken.

2.2.2 Emptying of outdoor pools

On the morning of Monday 17 May 2021, a Council Officer visited the Aquatic Centre in order to sample the outdoor pool prior to it being emptied for winter. Samples were collected at 07:55 am (NZST). The pool water was slightly turbid green, due to the algae that was beginning to grow in the absence of chlorine treatment (Photo 2). The concentration of total chlorine remaining in the pool water was below the laboratory detection limit (< 0.07 g/m^3). TEAC staff advised that the first batch of pool water was to be

released from 12:00 pm to 16:00 pm on Tuesday 18 May (high tide on this day was at 14:00 pm (2.8 m)). A sample of the receiving water was not collected while the pool was discharging due to unsafe sea conditions (3.3 m swell). However, given the low chlorine, suspended solids and oil and grease concentrations, it is highly unlikely that the discharge would have caused any measurable adverse effects on the receiving waters (especially considering the turbulent sea conditions).

The results of the pool water sample is presented in Table 3.

Table 3 Results of the outdoor pool sample (STW001079) collected on 17 May 2021

Parameter	Unit	Outdoor pool water sampler [STW001079]	Consent limit
		Result	
Temperature	°C	15.6	-
Free chlorine	g/m^3	< 0.07	-
Total chlorine	g/m^3	< 0.07	**0.5**
pH	pH	8.1	**6.0 - 9.0**
Suspended solids	g/m^3	< 3	**100**
Oil and grease	g/m^3	< 4	**15**

Photo 2 TEAC main outdoor pool, 17 May 2021

2.3 Marine ecological inspections

Two marine ecological inspections were conducted on Kawaroa Reef in the vicinity of the outfall during the 2020-21 monitoring period.

The first inspection (post backwash discharge) was completed 06:05 am (DST) on 13 February 2021 (low tide 0.4m @ 05:45 am), and there was a clear, odourless flow discharging from the outfall at a low rate. There were no objectionable odours or conspicuous films or scums at the discharge point. No environmental effects were detected at this time and the composition of intertidal species identified during this inspection was considered normal for this environment. Despite no adverse effects being detected beyond the mixing zone, it is recommended that the backwash discharge be redirected to sewer as soon as practicable.

The second inspection (post outdoor pool emptying) was due to be completed 09:40 am (NZST) on 20 May 2021 (low tide 1.1m @ 09:59 am), however the outfall was still discharging water at a low-moderate rate and was bright green in colour. The discharge was non-compliant given it was occurring outside of the authorised tidal window and the discoloration resulting from it (see Section 2.4). The reef inspection was postponed to the following day in order to identify any lasting effects on the reef as a result of the non-compliant discharge.

The follow-up ecological inspection was carried out at 08:30 am (NZST) on 21 May 2021 (low tide 1.0m @ 11:01 am). The intertidal rock pools downstream of the discharge had been flushed by two high tides and appeared clean and clear (Photo 3). The composition of intertidal species identified during the inspection was considered normal for this type of environment. No adverse effects on local intertidal communities were observed beyond the 5 m mixing zone as a result of the outdoor pool discharge.

Copies of the marine ecological inspection reports are available from the Council upon request.

Photo 3 Kawaroa Reef, 21 May 2021

2.4 Incidents, investigations, and interventions

The monitoring programme for the year was based on what was considered to be an appropriate level of monitoring, review of data, and liaison with NPDC. During the year matters may arise which require additional activity by the Council, for example provision of advice and information, or investigation of potential or actual causes of non-compliance or failure to maintain good practices. A pro-active approach, that in the first instance avoids issues occurring, is favoured.

For all significant compliance issues, as well as complaints from the public, the Council maintains a database record. The record includes events where the individual/organisation concerned has itself notified the Council. Details of any investigation and corrective action taken are recorded for non-compliant events.

Complaints may be alleged to be associated with a particular site. If there is potentially an issue of legal liability, the Council must be able to prove by investigation that the identified individual/organisation is indeed the source of the incident (or that the allegation cannot be proven).

Table 4 sets out details of any incidents recorded, additional investigations, or interventions required by the Council in relation to the Aquatic Centre's activities during the 2020-21 monitoring period. This table presents details of all events that required further investigation or intervention regardless of whether these were found to be compliant or not.

Table 4 Incidents, investigations, and interventions summary table

Date	Details	Compliant (Y/N)	Enforcement Action Taken?	Outcome
20 May 2021	Unauthorised discharge continuing outside of tidal window which also resulted in the discolouration of rock pools downstream of the outfall.	N	Y	No lasting adverse effects on local intertidal communities observed. Abatement Notice EAC-24199 issued.

The second marine ecological inspection was set to be carried out at 09:40 am (NZST) on 20 May 2021 (low tide 1.1m @ 09:59 am), however upon arrival at the reef at 09:40 am the outfall was still discharging water at a low-moderate rate and was bright green in colour. The rock pools on the reef downstream of the outfall were significantly discoloured bright green, with some scum and foam also observed (Photo 4). The discolouration was evident to approximately 30m downstream of the outfall. This was raised at the time with the TEAC Manager who sent another staff member out to inspect. The staff member noted that the discharge was likely due to staff water blasting algae off the outdoor pool surfaces. At this stage the main outdoor pool was two-thirds clean, and other small pools were still to be cleaned. The Council Officer advised that this discharge was non-compliant with NPDC's resource consent conditions, and that the water blasting would need to wait until it was within two hours either side of high tide (Special Condition 8), provided the discharge did not have any adverse effects on the receiving waters (Special Condition 6).

An Inspection Notice and letter of non-compliance were sent to NPDC asking them to explain the reason for the discharge and the response was found to be unsatisfactory. There have been a number of unauthorised discharges from the facility onto Kawaroa Reef in recent years which have been attributed to shortcomings in management and staff training regarding the marine outfall and the requirements of Resource Consent 2339-4. As a result Abatement Notice EAC-24199 was issued and NPDC has been asked to undertake steps including, but not limited to, management and staff training with regards to discharges out of the marine outfall to ensure compliance with Resource Consent 2339-4.

NPDC have acknowledged the receipt of Abatement Notice EAC24199 and are working to put the following measures in place:

- formulating a training session for any staff that may require knowledge of the stormwater network on site and the resource consent requirements;
- adding a section in the Aquatic Centre Operations Manual covering details of resource consent conditions and the location of valves discharging from the outdoor pools to the outfall pipe, as well as details of procedures to follow when emptying pools, waterblasting pools and painting pools;
- marking the manhole covers where the valves are located with a blue fish symbol to indicate these valves discharge to stormwater outfall as an additional step to inform others that the pipes discharge directly to the sea;
- ensuring external contractors undertaking works at the facility are aware of their obligations in relation to the outfall through the contractor induction process.

Photo 4 Intertidal rock pools downstream of the outfall which were bright green from pool discharge on 20 May 2021 (left), but had cleared by 21 May 2021 (right)

3 Discussion

3.1 Discussion of site performance

The Aquatic Centre was managed in compliance with consent conditions for the majority of the period under review. One instance of non-compliance was discovered during the monitoring year however, as discussed in section 2.4. An abatement notice was issued requiring NPDC to comply with the conditions of discharge consent 2339-4.

3.2 Environmental effects of exercise of consents

Sample results from the indoor and outdoor pool water and coastal waters adjacent to the outfall were compliant with consent limits.

Neither of the routine wastewater discharges that were monitored in the period under review appeared to have any long-term significant effects on the ecology of the Kawaroa Reef beyond the designated mixing zone. The second marine ecological inspection found the outfall was discharging bright green water outside of the allowed tidal window, which extended to the rock pools downstream of outfall (see section 2.4). These had cleared by the time the follow-up ecological inspection was carried out and appeared to have no lasting adverse effects on local intertidal communities.

The shortening of the ocean outfall, identified during the 2016-2017 monitoring year, has resulted in discharges from the facility occurring in shallower areas, higher up the rocky intertidal shore of the Kawaroa Reef. Ecological monitoring in the vicinity of the outfall indicates that the shortening of the ocean outfall has not adversely affected the ecology of the Kawaroa Reef.

3.3 Evaluation of performance

A tabular summary of the consent holder's compliance record for the year under review is set out in Table 5 and Table 6.

Table 5 Summary of performance for consent 2339-4.0

Purpose*: Discharge swimming pool wastewater and filter backwash wastewater*		
Condition requirement	**Means of monitoring during period under review**	**Compliance achieved?**
1. Best practice to prevent or minimise adverse effects	Inspections and correspondence	Yes
2. Limits on volume and frequency of discharge	Not assessed during period under review	N/A
3. No chemicals added to pool within seven days prior to discharge	Samples collected	Yes
4. Limits on discharge constituents	Samples collected	Yes
5. Council notified by the Aquatic Centre seven days prior to discharge	Aquatic Centre communicating with the Council via email	Yes
6. Effects not observed beyond mixing zone	Inspection	No

Purpose: *Discharge swimming pool wastewater and filter backwash wastewater*		
Condition requirement	**Means of monitoring during period under review**	**Compliance achieved?**
7. Chlorine concentration limit beyond mixing zone	Samples collected	Yes
8. Discharge to occur within two hours of high tide	Inspection	No
9. Contingency plan	Plan reviewed in June 2016	Yes
10. Option for review of consent	Not reviewed	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		**Improvement Req**
Overall assessment of administrative performance in respect of this consent		**High**

N/A = not applicable

Table 6 Summary of performance for consent 4588-3.0

Purpose: *To erect, place and maintain an ocean outfall*		
Condition requirement	**Means of monitoring during period under review**	**Compliance achieved?**
1. Notification prior to changes to nature or scale of structure	Inspection	Yes
2. Maintenance of structure	Inspection	Yes – although condition of outfall has deteriorated in recent years
3. Review of consent conditions	Not reviewed	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		**Good**
Overall assessment of administrative performance in respect of this consent		**High**

N/A = not applicable

Table 7 Evaluation of environmental performance by NPDC from 2010-2020

Year	Consent no	High	Good	Improvement req	Poor
2010-2011	2339	-	1	-	-
	4588	1	-	-	-
2011-2012	2339	1	-	-	-
	4588	1	-	-	-
2012-2013	2339	1	-	-	-
	4588	1	-	-	-
2013-2014	2339	1	-	-	-
	4588	1	-	-	-

Year	Consent no	High	Good	Improvement req	Poor
2014-2015	2339	-	1	-	-
	4588	1	-	-	-
2015-2016	2339	1	-	-	-
	4588	1	-	-	-
2016-2017	2339	-	-	1	-
	4588	-	-	1	-
2017-2018	2339	-	1	-	-
	4588	-	1	-	-
2018-2019	2339	1	-	-	-
	4588	-	1	-	-
2019-2020	2339	-	1	-	-
	4588	-	1	-	-
2020-2021	2339	-	-	1	-
	4588	-	1	-	-
Total	**2339**	**5**	**4**	**2**	**0**
	4588	**6**	**4**	**1**	**0**

During the year, NPDC demonstrated a level of environmental performance that required improvement, and high level of administrative performance with the resource consents as defined in Section 1.1.4. During the year under review there was one unauthorised incident of discharge onto the reef outside of the allowed time period, and where effects were observed beyond the mixing zone, but compliance with other consent conditions were upheld.

There were no significant environmental effects resulting from the discharge incident, but the environmental performance for consent 2399-4.0 was downgraded to "Improvement required" to reflect there was an incident, that Abatement Notice EAC-24199 was issued, and that other incidents of similar nature have occurred at the facility in recent years. NPDC is in the process of undertaking steps including, but not limited to, management and staff training with regards to discharges out of the marine outfall to ensure compliance with resource consent 2339-4.

Environmental performance for consent 4588-3.0 was rated "Good" due to the condition of the ocean outfall structure. Although the integrity of the structure has not changed from the previous monitoring period and continues to function effectively as an outlet structure, its condition has deteriorated significantly since installation. Pre-existing cracks along the surface, and the previous dislodgment of the end section of the structure warrant careful monitoring.

In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's environmental performance declined in the period under review.

3.4 Recommendations from the 2019-2020 Annual Report

In the 2019-2020 Annual Report, it was recommended:

1. THAT in the first instance, monitoring of consented activities at the Aquatic Centre in the 2020-2021 year continues at the same level as in 2019-2020.
2. THAT should there be issues with environmental or administrative performance in 2020-2021, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

These recommendations were implemented in full.

3.5 Alterations to monitoring programmes for 2021-2022

In designing and implementing the monitoring programmes for air/water discharges in the region, the Council has taken into account:

- the extent of information already made available through monitoring or other means to date;
- its relevance under the RMA;
- the Council's obligations to monitor consented activities and their effects under the RMA;
- the record of administrative and environmental performances of the consent holder; and
- reporting to the regional community.

The Council also takes into account the scope of assessments required at the time of renewal of permits, and the need to maintain a sound understanding of industrial processes within Taranaki exercising resource consents.

It is proposed that for 2021-2022, the programme remains unaltered from that for 2020-2021.

It should be noted that the proposed programme represents a reasonable and risk-based level of monitoring for the site in question. The Council reserves the right to subsequently adjust the programme from that initially prepared, should the need arise if potential or actual non-compliance is determined at any time during 2021-2022.

4 Recommendations

1. THAT in the first instance, monitoring of consented activities at the Aquatic Centre in the 2021-2022 year continues at the same level as in 2020-2021.
2. THAT should there be ongoing issues with environmental or administrative performance in 2021-2022, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

Glossary of common terms and abbreviations

The following abbreviations and terms may be used within this report:

Biota	Flora and fauna of a particular place.
Bund	A wall around a tank to contain its contents in the case of a leak.
g/m^3	Grams per cubic metre, and equivalent to milligrams per litre (mg/L). In water, this is also equivalent to parts per million (ppm), but the same does not apply to gaseous mixtures.
Incident	An event that is alleged or is found to have occurred that may have actual or potential environmental consequences or may involve non-compliance with a consent or rule in a regional plan. Registration of an incident by the Council does not automatically mean such an outcome had actually occurred.
Intervention	Action/s taken by Council to instruct or direct actions be taken to avoid or reduce the likelihood of an incident occurring.
Investigation	Action taken by Council to establish what were the circumstances/events surrounding an incident including any allegations of an incident.
Incident Register	The Incident Register contains a list of events recorded by the Council on the basis that they may have the potential or actual environmental consequences that may represent a breach of a consent or provision in a Regional Plan.
L/s	Litres per second.
Mixing zone	The zone below a discharge point where the discharge is not fully mixed with the receiving environment. For a stream, conventionally taken as a length equivalent to 7 times the width of the stream at the discharge point.
pH	A numerical system for measuring acidity in solutions, with 7 as neutral. Numbers lower than 7 are increasingly acidic and higher than 7 are increasingly alkaline. The scale is logarithmic i.e. a change of 1 represents a ten-fold change in strength. For example, a pH of 4 is ten times more acidic than a pH of 5.
Physicochemical	Measurement of both physical properties (e.g. temperature, clarity, density) and chemical determinants (e.g. metals and nutrients) to characterise the state of an environment.
Resource consent	Refer Section 87 of the RMA. Resource consents include land use consents (refer Sections 9 and 13 of the RMA), coastal permits (Sections 12, 14 and 15), water permits (Section 14) and discharge permits (Section 15).
RMA	*Resource Management Act 1991* and including all subsequent amendments.
SS	Suspended solids.
Temp	Temperature, measured in °C (degrees Celsius).
UI	Unauthorised Incident.

For further information on analytical methods, contact a Science Services Manager.

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Appendix I

Resource consents held by New Plymouth District Council (NPDC)

(For a copy of the signed resource consent
please contact the TRC Consents department)

Water discharge permits

Section 15(1)(a) of the RMA stipulates that no person may discharge any contaminant into water, unless the activity is expressly allowed for by a resource consent or a rule in a regional plan, or by national regulations. Permits authorising discharges to water are issued by the Council under Section 87(e) of the RMA.

Coastal permits

Section 12(1)(b) of the RMA stipulates that no person may erect, reconstruct, place, alter, extend, remove, or demolish any structure that is fixed in, on, under, or over any foreshore or seabed, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Coastal permits are issued by the Council under Section 87(c) of the RMA.

Consent 1389-3

Discharge Permit

Pursuant to the Resource Management Act 1991
a resource consent is hereby granted by the
Taranaki Regional Council

Name of Consent Holder:	New Plymouth District Council Private Bag 2025 NEW PLYMOUTH
Consent Granted Date:	6 December 2002

Conditions of Consent

Consent Granted:	To discharge up to 17 cubic metres/day of treated septic tank sewage effluent via soakage trenches into groundwater in the vicinity of the Onaero River at or about GR: Q19:284-448
Expiry Date:	1 June 2021
Review Date(s):	June 2009, June 2015
Site Location:	Onaero Bay Motor Camp, State Highway 3, Onaero
Legal Description:	Sec 82 Urenui Dist Blk III Waitara SD Kaipikari Farm Sett Rec Res
Catchment:	Onaero

For General, Standard and Special conditions
pertaining to this consent please see reverse side of this document

General conditions

a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council (hereinafter the Chief Executive), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.

b) Unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.

c) The consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:

i) the administration, monitoring and supervision of this consent; and
ii) charges authorised by regulations.

Special conditions

1. The consent holder shall, in conjunction with the Taranaki Regional Council, undertake such bacteriological monitoring of the Onaero River and coastal waters of the foreshore as deemed necessary by the Chief Executive, Taranaki Regional Council.

2. The consent holder shall ensure proper maintenance of the septic tanks, pumping station and soakage trenches as required.

3. The consent holder shall provide records of daily effluent volumes discharged to the soakage trenches at the request of the Chief Executive, Taranaki Regional Council.

4. The consent holder shall provide a contingency plan to the satisfaction of the Chief Executive, Taranaki Regional Council, outlining measures to be undertaken in the event of power failure, pump breakdown, pipe blockage and failure of soakage trenches, within three months of granting this consent.

5. 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 2009 and/or June 2015, for the purpose of 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.

Signed at Stratford on 6 December 2002

For and on behalf of
Taranaki Regional Council

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Director-Resource Management

Consent 2046-3

Discharge Permit

Pursuant to the Resource Management Act 1991
a resource consent is hereby granted by the
Taranaki Regional Council

Name of Consent Holder:	New Plymouth District Council Private Bag 2025 NEW PLYMOUTH
Consent Granted Date:	6 December 2002

Conditions of Consent

Consent Granted:	To discharge up to 85 cubic metres/day of treated septic tank sewage effluent via soakage trenches into groundwater in the vicinity of the Urenui River at or about GR: Q19:310-452
Expiry Date:	1 June 2021
Review Date(s):	June 2009, June 2015
Site Location:	Urenui Beach Motor Camp, Beach Road, Urenui
Legal Description:	Lot 1 DP 15787 Blk III Waitara SD
Catchment:	Urenui

For General, Standard and Special conditions
pertaining to this consent please see reverse side of this document

General conditions

a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council (hereinafter the Chief Executive), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.

b) Unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.

c) The consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:

i) the administration, monitoring and supervision of this consent; and
ii) charges authorised by regulations.

Special conditions

1. The consent holder shall, in conjunction with the Taranaki Regional Council, undertake such bacteriological monitoring of the Urenui River and coastal waters of the foreshore as deemed necessary by the Chief Executive, Taranaki Regional Council.

2. The consent holder shall ensure proper maintenance of the septic tanks, pumping station and soakage trenches as required.

3. The consent holder shall provide records of daily effluent volumes discharged to the soakage trenches at the request of the Chief Executive, Taranaki Regional Council.

4. The consent holder shall provide a contingency plan to the satisfaction of the Chief Executive, Taranaki Regional Council, outlining measures to be undertaken in the event of power failure, pump breakdown, pipe blockage and failure of soakage trenches, within three months of granting this consent.

5. 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 2009 and/or June 2015, for the purpose of 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.

Signed at Stratford on 6 December 2002

For and on behalf of
Taranaki Regional Council

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Director-Resource Management