

Todd Energy Aquatic Centre

Monitoring Programme

Annual Report

2022-2023

Technical Report 2023-31



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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 Kāwaroa Reef foreshore, to the east of the facility. This report for the period July 2022 to June 2023 describes the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess the Company'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 the Company's activities.

During the monitoring period, New Plymouth District Council demonstrated an overall level of environmental performance that requires improvement and a high level of administrative performance.

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

The Council's monitoring programme for the year under review included one site inspection, two physicochemical sampling surveys of the outdoor pool discharges, and two follow up marine ecological inspections.

The monitoring showed that results from the outdoor pool and shoreline samples were mostly compliant with consent limits, and did not appear to have any significant effects on the ecology of the Kāwaroa Reef, outside of the designated mixing zone.

There was one instance of non-compliance during the monitoring period where an unauthorised discharge of suspended materials (paint chips) was observed on the reef, following a backwash discharge from the outdoor pools. No adverse effects on local intertidal communities were observed beyond the 5m mixing zone on this occasion, and the Aquatic Centre has committed to investigating options to prevent this continuing.

For reference, in the 2022-2023 year, consent holders were found to achieve a high level of environment performance and compliance for 878 (87%) of a total of 1007 consents monitored through the Taranaki tailored monitoring programmes, while for another 96 (10%) of the consents a good level of environmental performance and compliance was achieved. A further 27 (3%) of consents monitored required improvement in their performance, while the remaining one (<1%) achieved a rating of poor.

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 remains at a level that requires improvement.

This report includes recommendations for the 2023-2024 year.

Table of contents

	Page	
1	Introduction	1
1.1	Compliance monitoring programme reports and the Resource Management Act 1991	1
1.1.1	Introduction	1
1.1.2	Structure of this report	1
1.1.3	The Resource Management Act 1991 and monitoring	1
1.1.4	Evaluation of environmental performance	2
1.2	Process description	2
1.3	Resource consents	4
1.4	Monitoring programme	5
1.4.1	Introduction	5
1.4.2	Programme liaison and management	5
1.4.3	Site inspections	5
1.4.4	Chemical sampling	5
1.4.5	Marine ecological inspections	5
2	Results	6
2.1	Site inspection	6
2.2	Chemical sampling	6
2.2.1	Outdoor pools backwash discharge	6
2.2.2	Emptying of outdoor pools	7
2.3	Marine ecological inspections	8
2.4	Incidents, investigations, and interventions	9
3	Discussion	10
3.1	Discussion of site performance	10
3.2	Environmental effects of exercise of consents	10
3.3	Evaluation of performance	10
3.4	Recommendations from the 2021-2022 Annual Report	13
3.5	Alterations to monitoring programmes for 2023-2024	13
3.6	Exercise of optional review of consent	13
4	Recommendations	14
	Glossary of common terms and abbreviations	15
	Bibliography and references	16
	Appendix I Resource consents held by New Plymouth District Council	

Appendix II Categories used to evaluate environmental and administrative performance

List of tables

Table 1	Resource consents held by NPDC in relation to wastewater discharges to the marine environment from the Aquatic Centre	4
Table 2	Results of the outdoor pool backwash discharge and seawater samples (3 March 2023)	6
Table 3	Results of the outdoor pool emptying and seawater samples (2 May 2023)	7
Table 4	Incidents, investigations, and interventions summary table	9
Table 5	Summary of performance for consent 2339-4.1	10
Table 6	Summary of performance for consent 4588-3.0	11
Table 7	Evaluation of environmental performance by NPDC from 2010-2021	12

List of figures

Figure 1	Location of the Todd Energy Aquatic Centre, New Plymouth	3
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List of photos

Photo 1	The ocean outfall, situated along the intertidal zone of Kāwaroa Reef (5 May 2022)	4
Photo 2	Todd Energy Aquatic Centre outdoor pool, and muslin cloths in place over outlet pipes (2 May 2023)	7
Photo 3	Downshore from the ocean outfall at Kāwaroa Reef (3 March 2023)	8
Photo 4	Examples of blue paint chips remaining on the reef in the vicinity of the outfall following the discharge of the backwash from the Aquatic Centre outdoor pools (5 March 2023)	8

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 2022 to June 2023 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 23rd 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 through 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 2023-2024 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 performance

Besides discussing the various details of the performance and extent of compliance by the consent holders, this report also assigns a rating as to each Company's environmental and administrative performance during the period under review. The rating categories are high, good, improvement required and poor for both environmental and administrative performance. The interpretations for these ratings are found in Appendix II.

For reference, in the 2022-2023 year, consent holders were found to achieve a high level of environment performance and compliance for 878 (87%) of a total of 1007 consents monitored through the Taranaki tailored monitoring programmes, while for another 96 (10%) of the consents a good level of environmental performance and compliance was achieved. A further 27 (3%) of consents monitored required improvement in their performance, while the remaining one (<1%) achieved a rating of poor.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.

Historically the indoor facility had a diatomaceous earth filter which served the main pool, and four upright high pressure sand filters which served 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 was removed from site using an effluent disposal contractor, and disposed of at the New Plymouth landfill. Backwash water from the spa and children's pools' sand filtration systems was also connected to the outfall and was discharged on a daily basis for 5-10 minutes at approximately 120 L per minute. In February 2022 this filtration system was upgraded and replaced with a Defender Regenerative Media Filter which has been set up to discharge backwash from the indoor, spa and children's pools straight to sewer.

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 m³) and the discharge can be a muddy colour for a short

¹ The Council has used these compliance grading criteria for more than 19 years. They align closely with the 4 compliance grades in the MfE Best Practice Guidelines for Compliance, Monitoring and Enforcement, 2018

time. Backwashes occur as frequently 1-2 times per week during the peak of the season, but generally occur every two weeks during the summer season.

The outdoor pools are emptied once per year, generally at the start of May, for cleaning and maintenance. The water discharged is generally free of chlorine as the pools have not been used for a week prior to discharge. The pools are cleaned by mechanical methods, including water blasting, and do not involve the use of chemical cleaners. Muslin 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.

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.



Figure 1 Location of the Todd Energy Aquatic Centre, New Plymouth



Photo 1 The ocean outfall, situated along the intertidal zone of Kāwaroa Reef (5 May 2022)

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
2339-4.1	To discharge public swimming pool wastewater and filter backwash wastewater via an ocean outfall into the Tasman Sea.	22 August 2022	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

A site inspection was carried out in conjunction with physicochemical sampling of the backwash discharge, and included 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 on two occasions in conjunction with the backwash discharge and outdoor pool emptying. On both occasions, the collection of discharge samples was followed by the collection of seawater samples in the receiving environment. 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 3 March 2023. 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 Outdoor pools backwash discharge

On the morning of 3 March 2023, the Council visited the Aquatic Centre to take a sample of the backwash discharge from the outdoor pools. The backwash commenced at 0745 NZDT, and a shoreline sample was collected approximately 5 m east of the outfall at 0800 NZDT. The discharge created a patch of cloudy water in the immediate surrounds of the outfall, but this did not extend beyond the 5 m mixing zone. Some small paint chips were observed being discharged onto the reef during the release of the backwash. This was raised with the Aquatic Centre Manager at the time who explained there is no current procedure or way to install a muslin cloth in place during the backwash discharge cycle.

The results of the outdoor pool backwash discharge and seawater samples are provided in Table 2. The seawater sample exceeded the consented limit for total chlorine in the receiving waters (consent 2339-4.1, special condition 7), however, it is possible that the actual value for total chlorine was below the consent limit due to the repeatability of the chlorine meter used by the Council during sampling ($\pm 0.07 \text{ gm}^3$). Any additional chlorine entering the environment would have diluted quickly and is unlikely to have had any adverse effects on the surrounding environment.

Table 2 Results of the outdoor pool backwash discharge and seawater samples (3 March 2023)

Parameter	Unit	Backwash discharge [STW001078]	5 m east of outfall [SEA902051]	Backwash consent limit (receiving waters)
		3 Mar 2023 0750 NZDT	3 Mar 2023 0800 NZDT	
Temperature	°C	24.3	20.0	-
Free chlorine	g/m ³	1.88	<0.07	-
Total chlorine	g/m ³	2.20	0.13	(0.1)
pH	pH	7.6	8.1	-
Suspended solids	g/m ³	121	51	-
Oil and grease	g/m ³	23	<4	-

2.2.2 Emptying of outdoor pools

On the morning of 2 May 2023, the Council visited the Aquatic Centre to sample the outdoor pools prior to them being emptied at the end of the summer season. The pool water was clear with no odour (Photo 2), and the total residual chlorine was below consented limit (Table 3). Muslin cloths had been placed over the outlet pipes to catch any debris leaving the pool, and Aquatic Centre staff advised that they would be releasing the first batch of water within their consent window that same day (high tide 0726 NZST \pm two hours). The discharge commenced at approximately 0820 NZST, and a sample of the receiving waters taken at 0830 NZST was compliant with consent limits (Table 3).



Photo 2 Todd Energy Aquatic Centre outdoor pool, and muslin cloths in place over outlet pipes (2 May 2023)

Table 3 Results of the outdoor pool emptying and seawater samples (2 May 2023)

Parameter	Unit	Outdoor pool sample [STW001079]	5 m east of outfall [SEA902051]	Discharge consent limit (receiving water limit)
		2 May 2023 0810 NZST	2 May 2023 0830 NZST	
Temperature	°C	17.3	17.6	-
Free chlorine	g/m ³	0.08	<0.07	-
Total chlorine	g/m ³	0.16	<0.07	0.5 (0.1)
pH	pH	7.9	8.1	6.0 - 9.0
Suspended solids	g/m ³	<3.0	29	100
Oil and grease	g/m ³	<4.0	<4.0	15

2.3 Marine ecological inspections

Two marine ecological inspections were conducted on Kāwaroa Reef in the vicinity of the outfall (Photo 3) on 3 March and 5 May 2023 following the backwash discharge and emptying of the outdoor pool. There were no objectionable odours, conspicuous films or scums at the discharge point during either inspection. Following the backwash discharge, several paint chips were present in the rock pools surrounding the outfall, some up to 50mm in size (Photo 4). No long-lasting environmental effects were detected at the time and the composition of intertidal species identified during inspections was considered normal for this environment. Copies of the marine ecological inspection reports are available from the Council upon request.



Photo 3 Downshore from the ocean outfall at Kāwaroa Reef (3 March 2023)



Photo 4 Examples of blue paint chips remaining on the reef in the vicinity of the outfall following the discharge of the backwash from the Aquatic Centre outdoor pools (5 March 2023)

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 2022-2023 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
3 March 2023	Unauthorised discharge of suspended materials (paint chips) onto the reef during a backwash discharge from the outdoor pools	N	Letter of explanation issued - no further action taken	There were no long-term adverse effects on local intertidal communities caused by the backwash of the outdoor pool discharge on this occasion. NPDC has committed to investigating alternate options to prevent continued unauthorised discharges.

During the backwash discharge on 3 March 2023 it was noticed that some small paint chips were present in the water being discharged onto the reef. This was raised with the Aquatic Centre Manager at the time who said there was no muslin cloth in place during the backwash discharge, or other method to prevent this. Several small paint chips were found lingering in the rock pools surrounding the outfall during the follow up intertidal ecological inspection, some up to 50 mm in size (Photo 4). The discharge of paint chips onto the reef is considered a minor breach of Special Conditions 1 and 6a of consent 2339-4.1, and as such a letter of explanation was issued to the Aquatic Centre. The Aquatic Centre responded that in this instance there is no mesh filter or muslin cloth on the discharge line due to the force of the water coming out of the pipe, however they do understand that it is not best practice to continue to allow this to occur. The Aquatic Centre has committed to investigating options to prevent this continuing, including installing a vinyl pool liner on all pools, sending backwash water to sewer, or installing an inline strainer that could sustain the force of water being discharged via the outfall.

The ecological reef inspection showed no adverse effects on local intertidal communities observed beyond the 5 m mixing zone as a result of the discharge on this occasion, and while some paint chips did remain on the reef after the completion of the discharge these would have dispersed quickly during subsequent tidal cycles. No adverse effects on local intertidal communities were observed beyond the 5 m mixing zone as a result of the outdoor pool discharge on this occasion, and no further enforcement action was taken at this time. It is stressed however that the Aquatic Centre does need to continue to investigate alternate options, and take preventative actions to ensure no further particles or contaminants are discharged onto the reef in future.

3 Discussion

3.1 Discussion of site performance

The Aquatic Centre was managed in compliance with consent conditions for most of the period under review. One instance of non-compliance was discovered during the monitoring year, as discussed in section 2.4. In this instance there was no enforcement action taken, but the Aquatic Centre has committed to investigating options to prevent this from continuing.

3.2 Environmental effects of exercise of consents

Chemical sampling results from the backwash, outdoor pools, and shoreline samples adjacent to the outfall were mostly all compliant with consent limits during the 2022-2023 monitoring period. There was an exceedance of total chlorine in the seawater sample following the backwash discharge sample on 3 March 2023 (Table 2), however it is possible that the actual value for total chlorine was below the consent limit due to the repeatability of the chlorine meter used by the Council during sampling ($\pm 0.07 \text{ gm}^3$). This minor exceedance would be expected to have diluted and dispersed quickly, and have had less than minor effects on the surrounding environment.

The first marine ecological inspection found the outfall was discharging suspended materials (blue paint chips) onto the reef (see section 2.4), however no adverse effects on local intertidal communities were observed beyond the 5 m mixing zone as a result of the outdoor pool discharge on this occasion.

Neither of the discharges monitored in the period under review appeared to have any long-term significant effects on the ecology of the Kāwaroa Reef beyond the designated mixing zone.

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 2339-4.1

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	No
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	Marine Ecological Inspection	Yes

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	Yes
9. Contingency plan	Plan reviewed in June 2016	Yes
10. Prepare and maintain a site Management Plan	Plan reviewed in January 2023	Yes
11. Option for review of consent	Requested in June 2022	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		Improvement Required
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

During the year under review there was one incident of an unauthorised discharge of suspended materials onto the reef, but compliance with other consent conditions were upheld. There were no significant environmental effects resulting from the incident, but the environmental performance for consent 2399-4.1 was downgraded to “improvement required” to reflect there was an incident, and that multiple incidents of a similar nature have occurred at the facility in recent years.

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.

During the monitoring period, New Plymouth District Council demonstrated an overall level of environmental performance that requires improvement and a high level of administrative performance. Ratings are as defined in Appendix II.

Table 7 Evaluation of environmental performance by NPDC from 2010-2021

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	-	-	-
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	-	-
2021-2022	2339-4.0	-	-	1	-
	4588-3.0	-	1	-	-
2022-2023	2339-4.1	-	-	1	-
	4588-3.0	-	1	-	-
Total	2339	5	4	4	0
	4588	6	6	1	0

3.4 Recommendations from the 2021-2022 Annual Report

In the 2021-2022 Annual Report, it was recommended:

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.

These recommendations were implemented in full.

3.5 Alterations to monitoring programmes for 2023-2024

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 2023-2024, the monitoring programme remains unchanged from that of previous years.

It should be noted that the proposed programme represents a reasonable and risk-based level of monitoring for the site(s) 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 2023-2024.

3.6 Exercise of optional review of consent

Resource consent 2339-4.0 special condition 10 allowed for an optional review of the consent annually in the month of June. A review of consent 2339-4.0 was requested in June 2022. The reasons for the review and the information taken into account when deciding to review the consent included:

- the installation of a new filtration system which redirects the backwash water from the indoor children's pool and spa straight to sewer; and
- a number of similar unauthorised discharges from the Aquatic Centre onto Kāwaroa Reef in recent years.

Reviewed consent 2339-4.1 was granted on 22 August 2022 and included an amendment to condition 2, and the addition of a new condition which ensures the Aquatic Centre shall prepare and maintain an operation, maintenance and discharge management plan that documents the procedures within the site at Tisch Avenue, New Plymouth (Appendix I; consent 2339-4.1).

4 Recommendations

1. THAT in the first instance, monitoring of consented activities at the Aquatic Centre in the 2023-2024 year continues at the same level as in 2022-2023.
2. THAT should there be ongoing issues with environmental or administrative performance in 2023-2024, 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	<i>Resource Management Act 1991</i> 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 an Environment Quality Manager.

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Appendix I

Resource consents held by New Plymouth District Council

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

Water abstraction permits

Section 14 of the RMA stipulates that no person may take, use, dam or divert any water, unless the activity is expressly allowed for by a resource consent or a rule in a regional plan, or it falls within some particular categories set out in Section 14. Permits authorising the abstraction of water are issued by the Council under Section 87(d) of the RMA.

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.

Air discharge permits

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

Discharges of wastes to land

Sections 15(1)(b) and (d) of the RMA stipulate that no person may discharge any contaminant onto land if it may then enter water, or from any industrial or trade premises onto land under any circumstances, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Permits authorising the discharge of wastes to land are issued by the Council under Section 87(e) of the RMA.

Land use permits

Section 13(1)(a) of the RMA stipulates that no person may in relation to the bed of any lake or river use, erect, reconstruct, place, alter, extend, remove, or demolish any structure or part of any structure in, on, under, or over the bed, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Land use permits are issued by the Council under Section 87(a) 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.

Coastal 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

Decision Date (Review): 22 August 2022

Commencement Date (Review): 22 August 2022 (Granted Date: 6 August 2014)

Conditions of Consent

Consent Granted: To discharge public swimming pool wastewater and filter backwash wastewater via an ocean outfall into the Tasman Sea

Expiry Date: 1 June 2032

Review Date(s): June 2026

Site Location: Tisch Avenue, New Plymouth

Grid Reference (NZTM) 1692028E–5676596N (point of discharge/site of structure)

Catchment: Tasman Sea

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

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 consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to prevent or minimise any adverse effects on the environment from the exercise of this consent.
2. The consent authorises the following discharges:
 - a) up to 20 cubic metres per fortnight of outdoor pool treated filter backwash,
 - b) up to 1000 cubic metres of pool wastewater on two occasion per year for the purpose of emptying the indoor or outdoor swimming pool systems.
3. No discharge from the emptying of any pool shall occur unless there has been no addition of chemicals to the pool for at least seven days.
4. Constituents of the discharge from the emptying of either pool shall meet the standards shown in the following table.

Constituent	Standard
pH	Within the range 6.0 to 9.0
suspended solids	Concentration not greater than 100 gm ⁻³
Oil and grease	Concentration not greater than 15 gm ⁻³
Total residual chlorine	Concentration not greater than 0.5 gm ⁻³

This condition shall apply before entry of the treated wastewater into the receiving waters at a designated sampling point approved by the Chief Executive, Taranaki Regional Council.


5. On each occasion that a pool is emptied the consent holder shall notify the Chief Executive, Taranaki Regional Council, at least 7 working days before any discharge occurs. Notification shall include the consent number and a brief description of the activity consented, and shall be emailed to worknotification@trc.govt.nz.
6. After allowing for reasonable mixing, within a mixing zone extending 5 metres of the discharge point, the discharge shall not, either by itself or in combination with other discharges, give rise to any or all of the following effects in the receiving water:
 - 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) any significant adverse effects on aquatic life.
7. Beyond a mixing zone of 5 metres the discharge shall not give rise to a total residual chlorine level of greater than 0.1 gm⁻³
8. Any discharge shall only occur two hours either side of high tide.

Consent 2339-4.1

9. The consent holder shall maintain and regularly update a 'Contingency Plan' that details measures and procedures that will be undertaken in the event of a chemical spill. The plan shall be approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity as being adequate to avoid, remedy or mitigate the environmental effects of such an event.
10. By 1 December 2022, the consent holder shall prepare and maintain an operation, maintenance and discharge management plan that documents the procedures within the site at Tisch Avenue, New Plymouth. This plan shall be followed at all times, shall be certified by the Chief Executive, Taranaki Regional Council, and shall include but not necessarily be limited to:
 - a) general housekeeping and maintenance;
 - b) details of resource consent conditions and the location of valves discharging from the outdoor pools to the outfall pipe;
 - c) details of procedures to follow when emptying pools, water blasting pools and painting pools;
 - d) ensuring external contractors undertaking works at the facility are aware of their obligations in relation to the outfall through the contractor induction process;
 - e) the recording of training, monitoring and maintenance undertaken; and
 - f) the frequency of review of the plan.
11. 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:
 - a) during the month of June 2020 and/or June 2026, 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; and/or
 - b) annually during the month of June for the purpose of including conditions requiring provision of records necessary to check compliance with condition 2.

Signed at Stratford on 22 August 2022

For and on behalf of
Taranaki Regional Council



A D McLay
Director - Resource Management

Coastal 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 4342

Decision Date 06 August 2014

Commencement Date 06 August 2014

Conditions of Consent

Consent Granted: To occupy the Coastal Marine Area with a discharge pipe
from the New Plymouth Aquatic Centre

Expiry Date: 01 June 2032

Review Date(s): June 2020, June 2026

Site Location: Tisch Avenue, New Plymouth

Legal Description: Adjacent to Pt Sec E Tn of New Plymouth

Grid Reference (NZTM) 1692028E-5676596N

Catchment: Tasman Sea

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

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. This consent authorises the occupation of space in the Coastal Marine Area by the outlet structure existing at the time the application for this consent was lodged, and as described in the application. Any change to the nature or scale of the structure may therefore need to be authorised by a formal process in accordance with the Resource Management Act, 1991.
2. The consent holder shall maintain the structure in a safe and sound condition such that it continues to function effectively as an outlet structure.
3. 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 2020 and/or June 2026 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 06 August 2014

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

Appendix II

Categories used to evaluate environmental and administrative performance

Categories used to evaluate environmental and administrative performance

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 Company'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.