

Todd Energy Aquatic Centre

Monitoring Programme

Annual Report

2021-2022

Technical Report 2022-62



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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 2021 to June 2022 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 indoor and outdoor pool discharges, and two follow up marine ecological inspections.

The monitoring showed that all results from the indoor pool, outdoor pool and shoreline samples were compliant with consent limits and did not appear to show 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 where an unauthorised discharge of suspended materials (paint chips) was spilt onto the reef, following the emptying of the outdoor pools. No adverse effects on local intertidal communities were observed beyond the 5m mixing zone on this occasion. A review of consent 2339-4.0 was requested in June 2022 resulting in an additional condition being added to the consent, which ensures the Aquatic Centre shall prepare and maintain an operation, maintenance and discharge management plan that documents the procedures used on site.

For reference, in the 2021-2022 year, consent holders were found to achieve a high level of environmental performance and compliance for 88% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 10% 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 remains at a level that requires improvement.

This report includes recommendations for the 2022-2023 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 2021 to June 2022 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 22nd 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 2022-2023 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 2021-2022 year, consent holders were found to achieve a high level of environmental performance and compliance for 88% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 10% 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.

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 time.

¹ The Council has used these compliance grading criteria for more than 18 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 Todd Energy Aquatic Centre, New Plymouth

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.



Photo 1 The ocean outfall, situated along the intertidal zone of Kawaroa 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
2339-4.0	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

A site inspection was carried out in conjunction with physicochemical sampling of the outdoor pool, 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 emptying of the indoor and outdoor pools. 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 5 May 2022. 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 Emptying of indoor pools

On the morning of 1 February 2022, the Council visited the Aquatic Centre to sample the indoor pool prior to it being emptied for the replacement of its filtration system. Samples were collected at 0810 NZDT and the pool water was clear with no odour at that time (Photo 2). The concentration of total chlorine remaining in the pool water was below the required consent limit (0.5 g/m^3). Aquatic Centre staff advised that the first batch of pool water was to be during their consent window (two hours either side of high tide) that same day (high tide 1048 NZDT, 3.6m). A sample of the receiving waters was taken at 0902 NZDT shortly after the discharge commenced. The coastal waters were turbid and discoloured at the time of discharge.



Photo 2 Todd Energy Aquatic Centre indoor pool ready for discharge (1 February 2022)

The indoor pool sample contained concentrations of suspended solids and oil and grease below laboratory detection limits (Table 2). Concentrations of oil and grease in the shoreline sample were below the laboratory detection and applicable consent limits (2339-4), however the concentration of chlorine in the shoreline sample was at the upper limit of the consent (0.1 g/m^3). The pH was within the typical range for seawater, and the sample contained elevated concentrations 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.

Table 2 Results of the indoor pool and shoreline samples (collected 1 Feb 2022)

Parameter	Unit	Indoor pool sample [STW001079]	5 m east of outfall [SEA902051]	Discharge consent limit (receiving water limit)
Temperature	°C	27.4	20.6	-
Free chlorine	g/m ³	<0.07	<0.07	-
Total chlorine	g/m ³	0.15	0.10	0.5 (0.1)
pH	pH	7.5	8.1	6.0 - 9.0
Suspended solids	g/m ³	<3.0	77	100
Oil and grease	g/m ³	<5.0	<4.0	15

2.2.2 Emptying of outdoor pools

On the morning of 5 May 2022, the Council visited the Aquatic Centre to sample the outdoor pool prior to them being emptied at the end of the summer season. Samples were collected from the main outdoor pool at 0944 NZST and the pool water was clear with no odour at that time (Photo 3). The concentration of total chlorine remaining in the pool water was below the required consent limit (0.5 g/m³). Aquatic Centre staff advised that the first batch of pool water was to be released during their consent window that same day (high tide 1219 NZST, 3.0m). The discharge commenced at 1023 NZST, and a sample of the receiving waters was taken at 1040 NZST.

As the discharge onto the reef began, the Inspecting Officer noticed that the discharge was loaded with leafy debris and blue paint chips. It was later found that there was no muslin cloth in place to prevent suspended materials from discharging onto the reef (see Section 2.4). Small paint chips were still discharging when the Inspecting Officer left the reef at 1055 NZST due to the incoming tide, but the Aquatic Centre reported that the flow was temporarily stopped, and a muslin cloth was put onto the main and tots pools discharge valves before starting flow again.



Photo 3 Todd Energy Aquatic Centre outdoor pool ready for discharge (5 May 2022)

The concentrations of chlorine, suspended solids and oil and grease in the outdoor pool sample were all below laboratory detection limits (Table 3), and all parameters were below their applicable consent limits in both the pool and shoreline samples. The pH was within the typical range for seawater, and the shoreline sample contained low concentrations of suspended solids most likely attributed to the calm conditions of the inshore waters along the coast.

Table 3 Results of the outdoor pool and shoreline samples (collected 5 May 2022)

Parameter	Unit	Outdoor pool sample [STW001079]	5 m east of outfall [SEA902051]	Discharge consent limit (receiving water limit)
Temperature	°C	20.1	17.2	-
Free chlorine	g/m ³	<0.07	<0.07	-
Total chlorine	g/m ³	<0.07	<0.07	0.5 (0.1)
pH	pH	8.0	8.2	6.0 - 9.0
Suspended solids	g/m ³	<3.0	12	100
Oil and grease	g/m ³	<5.0	<5.0	15

2.3 Marine ecological inspections

Two marine ecological inspections were conducted on Kawaroa Reef in the vicinity of the outfall during the 2021-22 monitoring period.

The first inspection (post indoor pool emptying) was carried out at the next practical low tide (0650 NZDT, 0.3m on 4 February 2022). Upon arrival at the reef at 0900 NZDT a clear, odourless flow was found discharging from the outfall at a low rate. The indoor pool discharge had been completed at this time, but there was concern that there may be a leak in the pipework near the outdoor pool. A sample of the water was tested and total chlorine levels were below the limit of detection (<0.07 g/m³). There were no objectionable odours, 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.

The second inspection (post outdoor pool emptying) was carried out at the next practical low tide (1914 NZST, 1.0m on 6 May 2022). Upon arrival at the reef at 1715 NZST it was noticed that there were small paint chips still remaining on the reef in the vicinity of the outfall and a few particles spread across the reef to the east of the outfall. There did not appear to be any spread of paint chips at the alongshore (west) or downshore survey sites. There was a clear, odourless flow discharging from the outfall at a low rate. There were no objectionable odours, conspicuous films or scums at the discharge point. With the exception of the paint chips, no other environmental effects were detected at this time and the composition of intertidal species identified during this inspection was considered normal for this environment.

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

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 2021-2022 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
5 May 2022	Unauthorised discharge of suspended materials (paint chips) onto the reef following the emptying of the outdoor pools	N	N	No lasting adverse effects on local intertidal communities were observed. A review of consent 2339-4.0 was requested in June 2022, resulting in an additional condition being added to the consent which ensures the Aquatic Centre shall prepare and maintain an operation, maintenance and discharge management plan that documents the procedures used on site.

During the discharge of the outdoor pools on 5 May 2022 the Inspecting Officer noticed that the discharge was loaded with leafy debris and blue paint chips (Photo 4). The Aquatic Centre was called and the Inspecting Officer advised that this discharge was non-compliant and requested that they check their filters on site. The Aquatic Centre staff said that they were reviewing their H&S policies regarding confined spaces and there was no muslin cloth currently in place. Small paint chips were still discharging when the Inspecting Officer left the reef at 1055 NZST due to the incoming tide submerging the outfall. The Aquatic Centre reported after this time that the flow was temporarily stopped, and a muslin cloth was put onto the main and tots pools discharge valves before starting flow again.

The following ecological reef inspection showed no adverse effects on local intertidal communities observed beyond the 5m mixing zone as a result of the outdoor pool discharge on this occasion (see section 2.3). While some paint chips did remain on the reef after the completion of the discharge, these would have dispersed during subsequent tidal cycles. No adverse effects on local intertidal communities were observed beyond the 5m mixing zone as a result of the outdoor pool discharge on this occasion.

A review of consent 2339-4.0 was requested in accordance with sections 128 and 129 of the Resource Management Act, and with special condition 10 of consent 2339-4.0. The review took into account the installation of the new filtration system, which now redirects backwash water from the indoor children's pool and spa straight to sewer; and also the number of unauthorised discharges from the facility onto Kawaroa Reef

in recent years with regards to the discharge from the ocean outfall and requirements of consent 2339-4.0. An additional condition was added to the reviewed consent 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, Special Condition 10).

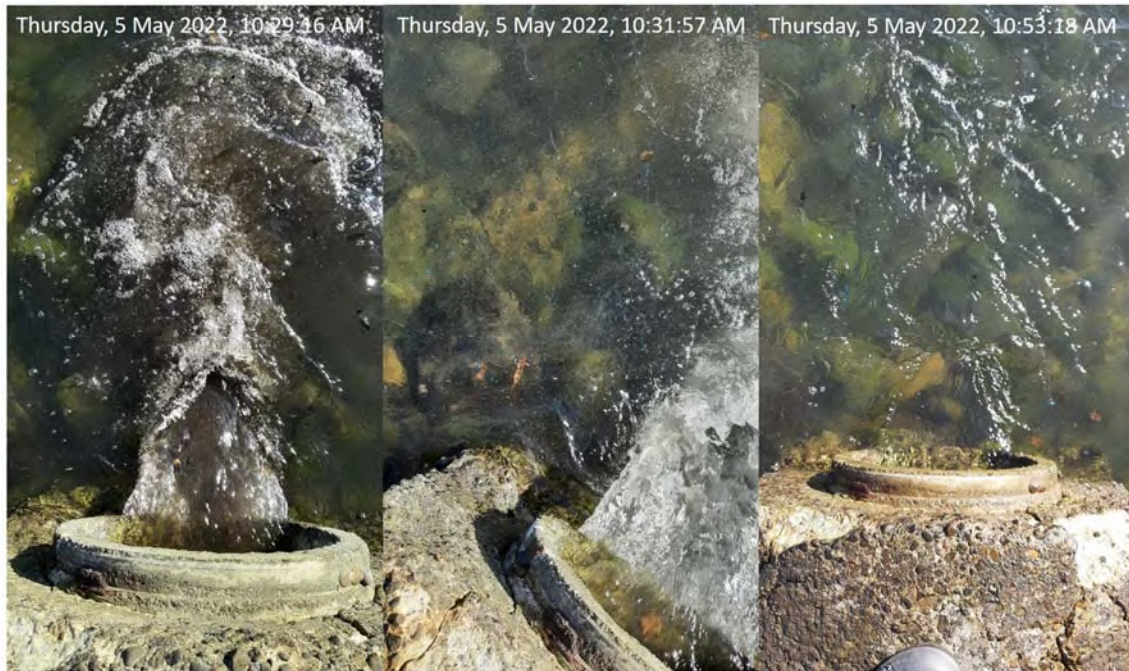


Photo 4 Outdoor pool water discharging from the ocean outfall, showing leafy debris and blue paint chips discharging onto the reef (5 May 2022)



Photo 5 Examples of blue paint chips remaining on the reef in the vicinity of the outfall following the discharge of the Aquatic Centre outdoor pools (6 May 2022)

3 Discussion

3.1 Discussion of site performance

The Aquatic Centre was managed in compliance with consent conditions for the 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 a review of the conditions of consent 2339-4.0 has been completed to prevent similar instances occurring.

3.2 Environmental effects of exercise of consents

Chemical sampling results from the indoor and outdoor pools, and shoreline samples adjacent to the outfall were all compliant with consent limits during the 2021-22 monitoring period. Neither of the 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 suspended materials (blue paint chips) onto the reef (see section 2.4), however no adverse effects on local intertidal communities were observed beyond the 5m mixing zone as a result of the outdoor pool discharge on this occasion.

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, however it is recommended that the discharges are redirected to sewer as soon as practicable.

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	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. 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 2399-4.0 was downgraded to “improvement required” to reflect there was an incident, and that several 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	-	-
Total	2339	5	4	3	0
	4588	6	5	1	0

3.4 Recommendations from the 2020-2021 Annual Report

In the 2020-2021 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 2022-2023

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 2022-2023, 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 2022-2023.

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 Kawaroa 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 2022-2023 year continues at the same level as in 2021-2022.
2. THAT should there be ongoing issues with environmental or administrative performance in 2022-2023, 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:

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
Private Bag 2025
New Plymouth 4342

Decision Date 06 August 2014

Commencement Date 06 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: 01 June 2032

Review Date(s): June 2020, June 2026, and in accordance with special
condition 10

Site Location: Tisch Avenue, New Plymouth

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

Grid Reference (NZTM) 1692028E-5676596N (point of discharge)

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 1.2 cubic metres per day of indoor children's pool and spa sand treated filter backwash,
 - c) 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.

<u>Constituent</u>	<u>Standard</u>
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.
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. 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 06 August 2014

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

Decision Date (Review): 22 August 2022

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

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.