Wai-iti Beach Retreat

Monitoring Programme
Annual Report
2022-2023

Technical Report 2023-44





Taranaki Regional Council Private Bag 713 Stratford

ISSN: 1178-1467 (Online)

Document: 3190623 (Word)

Document: 3226395 (Pdf)

March 2024

Wai-iti Beach Retreat

Monitoring Programme
Annual Report
2022-2023

Technical Report 2023-44

Wai-iti Beach Retreat

Monitoring Programme
Annual Report
2022-2023

Technical Report 2023-44

Taranaki Regional Council Private Bag 713 Stratford

ISSN: 1178-1467 (Online)

Document: 3190623 (Word)

Document: 3226395 (Pdf)

March 2024

Executive summary

Wai-iti Motor Camp Ltd (the Company) operates the Wai-iti Beach Retreat (the Retreat), located on Beach Road in North Taranaki. 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, Wai-iti Beach Retreat demonstrated a high level of environmental performance and administrative performance.

The Company holds two resource consents, which allow it to discharge treated septic tank effluent, and for a boulder rip rap toe protection in the coastal marine area. These consents were both replaced during the year under review. The consents that were in place at the start of the year included a total of 24 conditions setting out the requirements that the Company must satisfy. The replacement consents provide for the same activities, however the purposes of the consents were updated. The latest consents include a total of 18 conditions.

The Council's monitoring programme for the year under review included three routine inspections of the wastewater system, one inspection of the rock wall, and a routine bacteriological water sampling of the Wai-iti Stream and the seawater at Wai-iti Beach.

The monitoring showed that the Retreat was well maintained during the period under review. Whilst the average daily discharge limit was exceeded on two consecutive days under high rainfall conditions, the Company identified and eliminated stormwater discharges to the system in a timely fashion. Additional operational changes were made to minimise daily discharge volumes. The wastewater treatment system at the Retreat did not adversely affect the water quality of the local freshwater and coastal environments. The results of this sampling suggested that the Retreat was not influencing the water quality of the Wai-iti Stream. There were no unauthorised incident/s recording non-compliance in respect of this consent holder during the period under review.

During the year, the Company demonstrated a high level of environmental performance and a good level of administrative performance with the resource consents as defined in Appendix II. The Council has been working with the Company to ensure that a satisfactory management plan is developed for the activity, this has now been achieved. The Council continues to work with the Company to ensure that the data collected and provided to Council is suitable for auditing, as required by the conditions of the replacement wastewater discharge consent granted in September 2022.

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 high level in the year under review.

This report includes recommendations for the 2023-2024 year.

Table of contents

				Page
1		Introduct	ion	1
	1.1	Compli	ance monitoring programme reports and the Resource Management Act 1991	1
		1.1.1	Introduction	1
		1.1.2	Structure of this report	2
		1.1.3	The Resource Management Act 1991 and monitoring	2
		1.1.4	Evaluation of environmental performance	2
	1.2	Process	description	3
		1.2.1	Rock wall	3
	1.3	Resour	ce consents	4
	1.4	Monito	ring programme	5
		1.4.1	Introduction	5
		1.4.2	Programme liaison and management	5
		1.4.3	Data review	5
		1.4.4	Site inspections	5
		1.4.5	Bacteriological sampling	5
2		Results		8
	2.1	Site Ins	pections	8
	2.2	Results	of bacteriological monitoring	8
	2.3	Provisio	on of consent holder data	9
	2.4	Inciden	ts, investigations, and interventions	10
3		Discussio	n	11
	3.1	Discuss	ion of site performance	11
	3.2	Evaluat	ion of performance	11
	3.3	Recomi	mendations from the 2021-2022 Annual Report	16
	3.4	Alterati	ons to monitoring programmes for 2022-2023	16
4		Recomm	endations	18
Glos	sary of c	ommon te	erms and abbreviations	19
Bibli	ography	and refere	ences	21
Арр	endix I	Resource	consents held by Wai-iti Motor Camp Limited	
Арр	endix II	Categorie	es used to evaluate environmental and administrative performance	
Арр	endix III		Regional Council Operative Coastal Plan for Taranaki (Rule 40 Structure maintena eration or minor extension)	ince

List of tables

Table 1	Resource consents held by Wai-iti Motor Camp Ltd	4
Table 2	Locations of bacteriological sampling sites at the Wai-iti Beach Retreat	6
Table 3	Summary of the Recreational Bathing Guidelines (MfE, 2003)	7
Table 4	Summary of previous bacteriological results from 1993-2022	9
Table 5	Bacteriological monitoring results for Wai-iti Beach Retreat during the 2022-23 monitoring period	9
Table 6	Summary of performance for consent 1971-3 in effect to 6 September 2022	11
Table 7	Summary of performance for consent 1971-4.0 in effect from 7 September 2022	12
Table 8	Summary of performance for consent 6462-1 in effect to 6 September 2022	13
Table 9	Summary of performance for consent 6462-2 in effect from 7 September 2022	15
Table 10	Evaluation of environmental performance over time (2010-2023)	15
	List of figures	
Figure 1	Locations of wastewater treatment system and sampling sites at the Wai-iti Beach Retreat	6
	List of photos	
Photo 1	View of the beach from Wai-iti Beach Retreat	1
Photo 2	Erosion on Wai-iti foreshore prior to construction of the rock wall, and the rock wall facing north from stream (Nov 2005)	3
Photo 3	Wai-iti Beach, looking from site SEA900060 towards SEA900063, with the Wai-iti Stream entering from centre-left	7

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 Wai-iti Motor Camp Ltd (the Company). The Company operates the Wai-iti Beach Retreat (the Retreat) situated on Beach Road in North Taranaki (Photo 1).

The report includes the results and findings of the monitoring programme implemented by the Council in respect of the consents held by the Company that relate to the discharge of sewage effluent to groundwater, and a boulder rip rap wall along the foreshore.

One of the intents of the *Resource Management Act 1991* (RMA) is that environmental management should be integrated across all media, so that a consent holder's use of water, air, and land should be considered from a single comprehensive environmental perspective. Accordingly, the Council generally implements integrated environmental monitoring programmes and reports the results of the programmes jointly. This report discusses the environmental effects of the Company's use of water, land and air, and is the 34th combined annual report by the Council for the Company.



Photo 1 View of the beach from Wai-iti Beach Retreat

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 RMA and the Council's obligations;
- the Council's approach to monitoring sites though annual programmes;
- the resource consents held by the Wai-iti Motor Camp Ltd in the Wai-iti catchment;
- the nature of the monitoring programme in place for the period under review; and
- a description of the activities and operations conducted in the Company's site/catchment.

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 environmental 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

All wastewaters from the camping ground enter a septic tank of 143 m³ capacity. The effluent is then pumped via a 50 mm alkathene pipe across the Wai-iti Stream and into soakage trenches situated on a wooded hillside approximately 30 m from the stream. When previous proprietors took over the property in 1986-1987, the disposal system consisted of a seepage ditch situated near the base of the wooded hillside. Monitoring found that this trench system was an unsuitable means of disposal, resulting in high faecal coliform counts at the mouth of the Wai-iti Stream. This inadequate treatment led to the development of the new multiple soakage trench system on the hillside which was commissioned in 1991. More recently this has been extended, and another soakage field has been created in the Olive Grove on the other side of the hillside to allow the Retreat to spread the load across a wider area.

1.2.1 Rock wall

Over the summer and autumn months of 2004, rough seas combined with high tides reached the beach toe of the coastal banks and sand dunes that front the Wai-iti Beach Retreat. Fresh erosion scarps were cut into these banks for nearly the full beach frontage, where no system of protection previously existed (Photo 2). To mitigate any possible end effects, the area between the public entrance and the river was also protected using the boulder rip rap method.

In 2005 an application was received for a resource consent to provide boulder rip rap protection, over a total distance of 293 m, from the stream at the south end of Wai-iti Beach to an area of existing large boulder protection in the north. The original consent (6462-1) was granted in July 2005, and having expired in June 2021 was replaced on 7 September 2022.



Photo 2 Erosion on Wai-iti foreshore prior to construction of the rock wall, and the rock wall facing north from stream (Nov 2005)

The replacement consent (6462-2.0) provides for the occupation of the coastal space by the rock wall. Whilst this consent requires that the structure is maintained, it is likely that maintenance activities would be permitted under Rule 40 of the Regional Coastal Plan for Taranaki (RCP) so long as the activity complies with the standards, terms and conditions of the rule. A copy of this rule has been incuded in Appendix III.

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

There are 11 standards. The standards of particular relevance:

- minor extensions incidental to maintenance should not increase beyond 5% of the original size;
- require that the materials used match the existing materials;
- require that the timeframe of the disturbance be minimised and the area be restored within 48 hours;
- prohibit adverse effects on significant indigenous biodiversity; and
- require that the Council is informed at least five working days before commencement of the activity by entering details of the activity at www.trc.govt.nz/informcouncil.

The rock wall is in an area that is known to be a Kororā (Little Blue Penguin) hotspot, with both the penguin and the area identified in the significant indigenous biodiversity schedule of the RCP (Schedule 4). Therefore particular attention needs to be paid to penguin habitat in this instance.²

1.3 Resource consents

The Company holds two resource consents that were both replaced during the year under review. The details of the consents are summarised in Table 1. 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 Appendix I, as are copies of all permits held by the Company during the period under review.

Table 1 Resource consents held by Wai-iti Motor Camp Ltd

Consent number	Purpose	Granted	Review	Expiry
	Water discharge permits			
1971-3	To discharge up to 27 m ³ per day of septic tank treated sewage effluent via soakage trenches to groundwater in the vicinity of the Wai-iti Stream	28 March 2003	N/A	1 June 2021
1971-4.0	To discharge treated domestic wastewater via soakage trenches onto and into land at the Wai-iti Beach Motor Camp	7 Sep 2022	Jun 2025	1 Jun 2039
	Coastal permits			
6462-1	To erect, place and maintain a boulder rip rap toe protection in the coastal marine area on the Wai-iti Beach foreshore	12 Jul 2005	N/A	1 June 2021
6462-2.0	To continue to occupy the coastal space associated with boulder rip rap toe protection in the coastal marine area on the Wai-iti Beach foreshore	7 Sep 2022	Jun 2027	1 Jun 2039

² The Council has developed a guidance document to assist with achieving compliance with Rule 40 of the RCP. Coastal Structure Maintenance; Guidance for planning works with regard to Kororā/Little Blue Penguins. This document can be located through the Council's website.

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 Wai-iti Beach Retreat consists 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 Data review

The replacement consent for the discharge of treated wastewater contains additional conditions relating to the monitoring and recording of the discharge rate and daily discharge volume. The data for the year ending 30 June 2023 was provided to Council for review.

1.4.4 Site inspections

Wai-iti Beach Retreat was visited three times during the monitoring period. With regard to consents for the discharge to water, the main points of interest were site processes with potential or actual discharges to receiving watercourses, including contaminated stormwater and process wastewaters. Air inspections focused on site processes with associated actual and potential emission sources and characteristics, including potential odour, dust or offensive emissions. The neighbourhood was surveyed for environmental effects.

In addition, the rock wall was checked for integrity, or further erosion of the banks behind and in front of the wall.

1.4.5 Bacteriological sampling

Samples were collected at five sites during the second site inspection. Three samples were collected from the Wai-iti Stream and two from coastal sites either side of the stream mouth (Table 2, Figure 1, and Photo 3). With the exception of WIT000460, these sampling sites have mostly been monitored since 1994. WIT000460, located approximately 10 m downstream of the tributary, was added to the programme during the 1999-2000 monitoring period to assess the influence of the tributary on water quality in the Wai-iti Stream.

Table 2 Locations of bacteriological sampling sites at the Wai-iti Beach Retreat

Site location	Site code	GPS coordinates (NZTM)
Wai-iti Stream upstream of the Retreat	WIT000420	1727999-5690544
Wai-iti Stream approx. 10 m d/s of tributary	WIT000460	1727896-5690572
Wai-iti Stream adjacent beach entrance	WIT000490	1727686-5690533
Sea coast approx. 75 m north of stream mouth	SEA900060	1727667-5690609
Sea coast approx. 30 m south of stream mouth	SEA900063	1727555-5690516

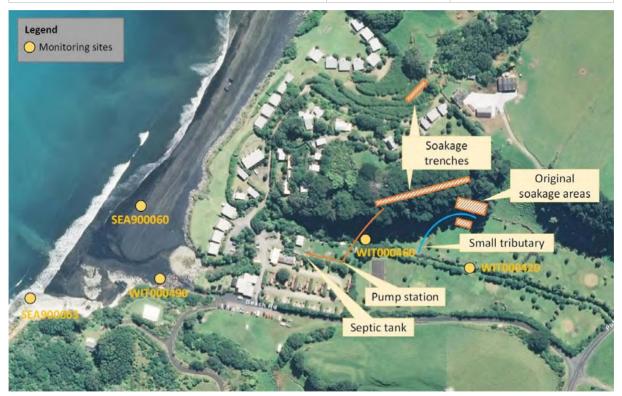


Figure 1 Locations of wastewater treatment system and sampling sites at the Wai-iti Beach Retreat

Samples were analysed for temperature, conductivity and the faecal indicator bacteria (FIB) enterococci or *Escherichia coli* (*E. coli*). The FIB were monitored to provide an indication of potential contamination of the water by animal and/or human excreta. Electrical conductivity, which reflects the total ionic content of water, was measured as a supporting variable. Conductivity indirectly relates to water composition as it correlates well with total dissolved solid concentrations (Davies-Colley, 2013).

Water quality is of significant interest at this site as Wai-iti Beach receives high recreational use over the bathing season. In 2003, the Ministry for the Environment (MfE) developed the *Guidelines for Recreational Water Quality* to assess the safety of water for contact recreation. The coastal guidelines focus on enterococci as these bacteria have the ability to survive in marine water, providing the closest correlation with health effects in New Zealand coastal waters (MfE, 2003). For freshwater the MfE 2003 guidelines use *E. coli* as the preferred indicator. 'Alert' and 'Action' guideline levels are summarised in Table 3 and are based on keeping illness risk associated with recreational use to less than 2% of users.

Table 3 Summary of the Recreational Bathing Guidelines (MfE, 2003)

	la di coto u	Mode				
	Indicator	Surveillance	Alert	Action		
Marine	Enterococci (cfu/100 ml)	No single sample >140	Single sample >140	Two consecutive single samples >280		
Freshwater	E. coli (cfu/100 ml)	No single sample >260	Single sample >260	Single sample >550		



Photo 3 Wai-iti Beach, looking from site SEA900060 towards SEA900063, with the Wai-iti Stream entering from centre-left

2 Results

2.1 Site Inspections

19 December 2022

The camp was quiet at the time of inspection, with only those who reside in the baches full time on site. The owner advised that there would be no campsites made available during the summer this year. There were no odour issues noted at the pump station. The flow book was sighted and was up to date. The trenches were inspected on this visit, and there were no visual or odour issues noted. The camp appeared to be operating in compliance with its consent conditions at the time of inspection. The monitoring bore required by the new consent is yet to be installed, but the organisation of the location and installation was in progress. The rock wall was also inspected on this visit and looked to be in good condition with good slope, and was mostly submerged in sand.

16 January 2023

The camp was quiet at the time of inspection, with only some of the full time residents on site. There were several groups of users present along the beachfront fishing and playing in the surf. There were no odours or visual issues at the pump station. The pump shed was locked, so the flow book was not sighted on this visit. The trenches were inspected along with the new soakage fields near the olive grove, and there were no visual or odour issues at the time of inspection. Water samples were also collected during the inspection. The camp appeared to be operating in compliance with its consent conditions at the time of inspection.

13 February 2023

The camp was quiet at the time of inspection with no one staying in the campground, and very few in the permanent baches. There were no odour issues noted at the pump station. The pump shed was locked, and flow book was not sighted on this occasion. The trenches were not inspected on this occasion due to high winds associated with Cyclone Gabrielle, but there were no odour or visual issues at the base of the hillside near the trenches. The monitoring bore required by the new consent was yet to be installed at the time of the inspection, however this was installed soon after on 17 Feb 2023. The camp appeared to be operating in compliance with its consent conditions at the time of inspection.

2.2 Results of bacteriological monitoring

A summary of historical bacteriological results from January 1993 to January 2022 is presented in Table 4. Median *E. coli* counts are historically higher at the freshwater sites monitored downstream of the camp, particularly at the site located 10 m downstream of the unnamed tributary. This is a reflection of the historical issues with wastewater disposal at the camp. These higher FIB counts are typically not reflected at the coastal sites, due to the high degree of mixing and dilution that occurs where the stream meets the Tasman Sea.

The results of the routine bacteriological monitoring undertaken during the 2022-2023 summer monitoring period are presented in Table 5. The FIB counts of the samples collected in January 2023 from the three freshwater sites were all at 'Alert' mode under the Freshwater Recreational Bathing Guidelines (MfE, 2003; Table 3). When compared to the upstream site, there was an increase in *E. coli* numbers 10 m downstream of the confluence with the small unnamed tributary. However, the count is well below the historical median for this monitoring location. The *E. coli* numbers in the stream at the beach were similar to upstream of the beach retreat (WIT000420). Enterococci counts at both coastal sites were low and easily within the 'Surveillance' mode for Marine Recreational Bathing Guidelines (MfE, 2003; Table 3).

Table 4 Summary of previous bacteriological results from 1993-2022

	Upstream WIT000420		10 m downstream tributary WIT000460		Stream at beach WIT000490		Coast 75 m N SEA900060		Coast 30 m S SEA900063	
	E. coli (MPNª/ 100 ml)	EC (mS/m)	E. coli (MPN/ 100 ml)	EC (mS/m)	E. coli (MPN/ 100 ml)	EC (mS/m)	Ent (cfu/ 100 mL)	EC (mS/m)	Ent (cfu/ 100 mL)	EC (mS/m)
Number of samples	31	32	25	26	27	28	30	29	29	28
Minimum	150	15.6	230	15.2	210	15.8	<1	3,430	<1	3,790
Maximum	2,700	23.7	3,100	23.8	2,700	25.6	1,400	5,470	140	5,470
Median	687	18.4	710	18.4	670	19.5	9	4,680	7	4,690

Note: a MPN and cfu are equivalent

Table 5 Bacteriological monitoring results for Wai-iti Beach Retreat during the 2022-23 monitoring period

	Upstr WIT00	Tributary		Coast 75 m N SEA900060		Coast 30 m S SEA900063				
Date	E. coli (MPN/ 100 ml)	EC (mS/m)	E. coli (MPN/ 100 ml)	EC (mS/m)	E. coli (MPN/ 100 ml)	EC (mS/m)	Ent (cfu/ 100 mL)	EC (mS/m)	Ent (cfu/ 100 mL)	EC (mS/m)
16 Jan 2023	276	20.1	435	20.1	291	21.4	<1	5150	7	5280

2.3 Provision of consent holder data

The data recording and data provision requirements changed during the year under review due to the replacement of consent 1971-3.

Condition 3 of consent 1971-3 required that consent holder provide records of daily effluent volumes discharged to the soakage trenches upon request. The Council recommended in the 2016-2017 annual report that a flow meter be installed within the wastewater treatment system, in order to comply with condition 3 of consent 1971-3 (TRC, 2017).

Consent 1971-4 was granted on 7 September 2022. Condition 6 of this consent required the installation and maintenance of a data logger and recording system that is able to measure and record the rate and volume of the discharge to an accuracy of \pm 5%, at intervals not exceeding 15 minutes. This system was to be installed by 31 December 2022. Condition 7 further details the record requirements (Appendix I).

The Company provided records of average daily effluent volumes discharged to the soakage trenches between 1 July 2022 and 30 June 2023 (Appendix IV). On the whole, the average daily discharge volumes were well below the consent limit. The effluent volumes exceeded the consent limit of 27 m³ per day, which was in effect until 6 September 2022, on two consecutive days in August 2022. The exceedances occurred when there had been two days of heavy rain. Investigations undertaken by the Company found that the stormwater from some of the buildings that have been at the camp for many years was being discharged into the septic system. This was rectified immediately. In addition to this, the Company restricted the hours of operation of the pump to 1 to 2 hours per day to ensure that less than 10 m³ was being discharged on any one day.

The data provided for the discharges after 31 December 2022 was still in the format of an average daily discharge for each day, rather than including the 15 minute data and the time the data was captured. The Council is working with the Company to ensure that the data provided is suitable for auditing.

The Council was also provided with a memorandum containing the as-built details of the groundwater monitoring bore that was installed on 17 February 2023. The Company advised that the contractor was waiting for a period of fine weather in order to install the piezometer, and that the installation had been put off three times due to the weather and ground conditions not being suitably dry. It is understood from the Company that this was installed during the monitoring review period.

The Council has been working with the Company in regard to the provision of a satisfactory Management Plan required by consent 1971-4 (condition 12), this has now been achieved.

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 the Wai-iti Beach Retreat. 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 proactive 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).

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with the Company's conditions in resource consents or provisions in Regional Plans.

3 Discussion

3.1 Discussion of site performance

No visual issues were noted during any of the three inspections and, no issues with the wastewater treatment system were reported by the camp manager over the 2022-2023 monitoring period. The pump station and soakage trenches at the Retreat were inspected three times during the 2022-2023 monitoring period. It is noted that the pump shed was locked at the time of the two inspections that were undertaken after 31 December 2022. As a result the Council was not able to confirm compliance with all aspects of condition 6 of replacement wastewater discharge consent 1971-4. The camp manager's regular monitoring and maintenance of the wastewater treatment system appears to have prevented any issues from arising. The Council is working with the Consent holder to ensure that the data collected and provided to Council is suitable for auditing as per condition 7 of consent 1971-4.

The average daily discharge volumes were well below the consent limits except on two occasions during August 2022. The exceedances occurred when there had been two days of heavy rain, and this explanation was accepted by the Council. The Company was proactive in responding to the exceedances.

The pathogens that occur in faecal matter present a health risk. Although the stream is not thought to be commonly bathed in, the presence of eels attracts people to the stream banks and it is often crossed where it runs out over the beach. These considerations highlight the importance of maintaining the wastewater treatment and disposal systems at the Retreat. The freshwater results were found to be at 'Alert' level for FIB, and in the coastal water, where most people are likely to bathe, counts were well within 'Surveillance' mode (MfE, 2003; Table 3). The health risk overall, was therefore considered to be low.

The rock wall looked to be in good condition with no scouring noted during the period under review.

3.2 Evaluation of performance

A tabular summary of the consent holder's compliance record for the year under review is set out in Tables 6-10.

Table 6 Summary of performance for consent 1971-3 in effect to 6 September 2022

	Purpose: To discharge up to 27 m³/day of septic tank treated sewage effluent via soakage trenches to groundwater in the vicinity of the Wai-iti Stream					
	Condition requirement	Means of monitoring during period under review	Compliance achieved?			
1.	Bacteriological sampling to be undertaken in the Wai-iti Stream and the coastal waters	Council's bacteriological sampling at five sites	N/A, only carried out during summer			
2.	Consent holder to ensure maintenance of septic tanks, pumps and soakage trenches is undertaken	Site inspections	N/A, only carried out during summer			
3.	Consent holder to provide records of daily effluent volumes discharged to the soakage trenches	Records were provided to the Council	Yes			
4.	Contingency plan to be provided	An updated contingency plan received June 2009	Yes			

Purpose: To discharge up to 27 m³/day of septic tank treated sewage effluent via soakage trenches to groundwater in the vicinity of the Wai-iti Stream Condition requirement Means of monitoring during period under review No further opportunities for review prior to consent expiry No further opportunities for review prior to consent expiry High

High

N/A = not applicable

Table 7 Summary of performance for consent 1971-4.0 in effect from 7 September 2022

Overall assessment of administrative performance in respect of this consent

	Condition requirement	Means of monitoring during period under review	Compliance achieved?
1.	Exercise of the consent in accordance with application documentation	Site inspection and liaison with consent holder	Yes
2.	Additional soakage trench to be installed by 31 December 2022	Site inspection	Yes
3.	Adopt best practicable option to prevent or minimise adverse effects	Site inspection	Yes
4.	Notification of changes that could alter the nature of the discharge	Site inspection and review of Council records.	Yes
5.	Discharge not to exceed 30 m ³ per day	Review of data required by condition 7	No, 2 consecutive days of exceedance. Issue resolved swiftly and Company explanation accepted by Council
6.	Requirement to record 15 minute data for the rate and volume discharged accurate to ±5%	Site inspection, review of data required by condition 7 and liaison with consent holder. Email from consent holder advising meter is installed.	No Pump shed locked or two of the three inspections and the flow data could not b
7.	Specifies data recording requirements and the provision of each year's data to 30 June within one month	Review of the daily average discharge data provided to the Council	Yes, Council working with Company to ensure data is suitabl for auditing
8.	Prohibits run off and ponding and contamination of ground and surface water	Site inspection	Yes

Purpose: To discharge treated domestic wastewater via soakage trenches onto and into land at the Wai-iti Beach Motor Camp

	Condition requirement	Means of monitoring during period under review	Compliance achieved?
9.	Prohibits offensive or objectionable odours beyond the site boundary	Site inspection	Yes
10.	Provision of treated wastewater sampling point required	Sampling point is available	Yes
11.	Installation of groundwater monitoring bore by 31 December 2022	Installed 17 February 2023. Delays due to wet weather/ground conditions	Yes
12.	Discharge to be operated in accordance with certified Management Plan by 31 December 2022	Approved Management Plan received November 2023	Yes
13.	Optional review provision re environmental effects or provision of discharge data	June 2023 review not required. Next opportunity for review June 2025	N/A
	erall assessment of consent compli his consent	Good	
Ove	erall assessment of administrative	Good	

N/A = not applicable

Table 8 Summary of performance for consent 6462-1 in effect to 6 September 2022

Purpose: To erect, place and maintain a boulder rip rap toe protection in the coastal marine area on the Waiiti Beach foreshore

iti Beach foreshore					
	Condition requirement	Means of monitoring during period under review	Compliance achieved?		
1.	Notification period before construction or maintenance begins	No work done	N/A		
2.	Structure to be constructed and maintained in accordance with the engineering plans	Site inspections	Yes		
3.	Landward position of seawall is to be determined by survey to satisfaction of Council		N/A		
4.	Crest of structure to be no higher than reduced level plus 7.5 m	Site inspections	Yes		
5.	Maximum size of boulders to be used	Site inspections	Yes		
6.	Structure to have minimum slope of 2 to 1	Site inspections	Yes		
7.	No refuelling of machinery within coastal marine area		N/A		

Purpose: To erect, place and maintain a boulder rip rap toe protection in the coastal marine area on the Waiiti Beach foreshore

	Condition requirement	Means of monitoring during period under review	Compliance achieved?
8.	Construction to comply with noise standards as defined in the coastal plan		N/A
9.	No work to be undertaken during weekends and holiday periods	Email confirmation from consent holder	Yes
10.	No maintenance to be undertaken during weekends or the summer holiday period	Email confirmation from consent holder	Yes
11.	Sufficient signage to be in place during construction	Email confirmation from consent holder	Yes
12.	In situ beach materials only to be used for foreshore reinstatement purposes		N/A
13.	Area and volume of disturbance to be minimised and reinstated	Site inspections	Yes
14.	Works to cease if any archaeological remains are found		N/A
15.	Structure to be constructed within 12 months of issuing of consent	Construction complete	Yes
16.	Area behind rock wall to be planted in sand binding plants	Grasses planted	Yes
17.	Annual monitoring programme to be developed for integrity of the wall	An annual inspection is incorporated with the monitoring for the wastewater treatment system at the Wai-iti Beach Retreat. Further monitoring (structure survey) may be required in future	Yes
18.	Structure to be removed and reinstated if no longer required	Structure is still required	N/A
19.	Optional review provision re. environmental effects	Not required	N/A
	erall assessment of consent compli	ance and environmental performance in respect of this	High
		performance in respect of this consent	High

N/A = not applicable

Table 9 Summary of performance for consent 6462-2 in effect from 7 September 2022

Purpose: To continue to occupy the coastal space associated with boulder rip rap toe protection in the coastal marine area on the Wai-iti Beach foreshore Compliance **Condition requirement** Means of monitoring during period under review achieved? 1. Authorisation to occupy limited Site inspections Yes to 293 m of boulder rip rap 2. Structure to be maintained in a Site inspections Yes safe and sound state 3. Prohibits significant erosion Site inspections Yes due to the structure 4. Specifies actions to be taken if significant or potentially Site inspections N/A significant erosion is found 5. Optional review provision re. N/A Next review opportunity June 2027 environmental effects High Overall assessment of consent compliance and environmental performance in respect of this consent Overall assessment of administrative performance in respect of this consent High

N/A = not applicable

Table 10 Evaluation of environmental performance over time (2010-2023)

Year	Consent no	High	Good	Improvement Req	Poor
2010 2011	1971	1	-	-	-
2010-2011	6462	1	-	-	-
2011 2012	1971	1	-	-	-
2011-2012	6462	1	-	-	-
2012 2012	1971	1	-	-	-
2012-2013	6462	1	-	-	-
2012 2011	1971	1	-	-	-
2013-2014	6462	1	-	-	-
2014 2015	1971	1	-	-	-
2014-2015	6462	1	-	-	-
2015 2016	1971	-	-	1	-
2015-2016	6462	1	-	-	-
2016 2017	1971	-	-	1	-
2016-2017	6462	1	-	-	-
2017 2010	1971	-	1	-	-
2017-2018	6462	1	-	-	-

Year	Consent no	High	Good	Improvement Req	Poor
2010 2010	1971	1	-	-	-
2018-2019	6462	1	-	-	-
2010 2020	1971	1	-	-	-
2019-2020	6462	1	-	-	-
2020 2021	1971	1	-	-	-
2020-2021	6462	1	-	-	-
2024 2022	1971	1	-	-	-
2021-2022	6462	1	-	-	-
2022 2022	1971	1	-	-	-
2022-2023	6462	1	-	-	-
Total	-	23	1	2	0

During the year, the Company demonstrated a high level of environmental and administrative performance with the resource consents as defined in Appendix II. The Council has been working with the Company to ensure that a satisfactory management plan is developed for the activity, this has now been completed. The Council continues to work with the Company to ensure that the data collected and provided to Council is suitable for auditing, as required by the conditions of the replacement wastewater discharge consent granted in September 2022.

3.3 Recommendations from the 2021-2022 Annual Report

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

- 1. THAT in the first instance, monitoring of consented activities at Wai-iti Beach Retreat in the 2022-2023 year continue at the same level as in 2021-2022; and
- 2. THAT should there be issues with environmental or administrative performance in 2022-2023, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

These recommendations were implemented as appropriate.

3.4 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.

Planned changes for the 2023-2024 the monitoring programme for the Retreat include the addition of groundwater monitoring.

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.

4 Recommendations

- 1. THAT in the first instance, monitoring of consented activities at Wai-iti Beach Retreat in the 2023-2024 year be amended from that undertaken in 2022-2023 by the addition of groundwater monitoring; and
- 2. THAT should there be 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:

Action mode Marine: two consecutive single samples >280 enterococci/100 ml.

Freshwater: single sample >550 E. coli/100 ml.

Alert mode Marine: single sample 141-280 enterococci/100 ml.

Freshwater: single sample 261-550 E. coli/100 ml.

Bathers Those who enter the water, and either partially or fully immerse themselves.

Bathing season Generally the bathing season extends between 1 November and 31 March.

Beach The shore or any access point to the sea.

BODCF Biochemical oxygen demand of a filtered sample.

cfu Colony forming units. A measure of the concentration of bacteria usually expressed

as per 100 ml sample.

Conductivity An indication of the level of dissolved salts in a sample, usually measured at 20°C

and expressed in mS/m.

Contact recreation Recreational activities that bring people physically in to contact with water, involving

a risk of involuntary ingestion or inhalation of water.

E. coli Escherichia coli, an indicator of the possible presence of faecal material and

pathological micro-organisms. Usually expressed as colony forming units per 100 ml

of sample.

Ent Enterococci, an indicator of the possible presence of faecal material and

pathological micro-organisms. Usually expressed as colony forming units per 100 ml

of sample.

FC Faecal coliforms, an indicator of the possible presence of faecal material and

pathological micro-organisms. Usually expressed as colony forming units per 100 ml

of sample.

FIB Faecal Indicator Bacteria – in this report it refers collectively to E. coli, enterococci

and faecal coliforms.

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.

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.

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 the circumstances/events surrounding an

incident, including any allegations of an incident.

Median Central value when values are arranged in order of magnitude.

MPN Most Probable Number. A method used to estimate the concentration of viable

microorganisms in a sample.

Resource consent Refer Section 87 of the RMA. Resource consents include land use consents (refer

Sections 9 and 13 of the RMA), coastal permits (Sections 12, 14 and 15), water

permits (Section 14) and discharge permits (Section 15).

RMA Resource Management Act 1991 including all subsequent amendments.

Temperature Measured in °C (degrees Celsius).

Water quality The bacteriological condition of a water body as it relates to human health,

measured using indicator bacteria.

For further information on analytical methods, contact an Environmental Quality Manager.

Bibliography and references

- Davies-Colley, R. J. (2013). River water quality in New Zealand: an introduction and overview. *Ecosystem services in New Zealand: conditions and trends. Manaaki Whenua Press, Lincoln,* 432-447.
- Ministry for the Environment and Ministry of Health (2002). *Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas.* Ministry for the Environment, Wellington.
- Ministry for the Environment. 2018. *Best Practice Guidelines for Compliance, Monitoring and Enforcement under the Resource Management Act 1991*. Wellington: Ministry for the Environment.
- Taranaki Catchment Board (1989). Annual report for Wai-iti Motor Camp 1989. Internal Report.
- Taranaki Regional Council (2023). *Wai-iti Beach Retreat Monitoring Programme Annual Report 2021-2022*. Technical Report 2022-60.
- Taranaki Regional Council (2021). *Wai-iti Beach Retreat Monitoring Programme Annual Report 2020-2021*. Technical Report 2021-23.
- Taranaki Regional Council (2020). *Wai-iti Beach Retreat Monitoring Programme Annual Report 2019-2020.*Technical Report 2020-14.
- Taranaki Regional Council (2019). *Wai-iti Beach Retreat Monitoring Programme Annual Report 2018-2019*. Technical Report 19-08.
- Taranaki Regional Council (2018). *Wai-iti Beach Retreat Monitoring Programme Annual Report 2017-2018*. Technical Report 18-04.
- Taranaki Regional Council (2017). *Wai-iti Beach Retreat Monitoring Programme Annual Report 2016-2017*. Technical Report 17-38.
- Taranaki Regional Council (2016). *Wai-iti Beach Retreat Monitoring Programme Annual Report 2015-2016*. Technical Report 16-110.
- Taranaki Regional Council (2015). *Wai-iti Motor Camp Monitoring Programme Annual Report 2014-2015*. Technical Report 15-15.
- Taranaki Regional Council (2014). *Wai-iti Motor Camp Monitoring Programme Annual Report 2013-2014*. Technical Report 14-06.
- Taranaki Regional Council (2013). *Bathing Beach Water Quality State of the Environment Monitoring Report Summer 2012-2013*. Technical Report 2013-17.
- Taranaki Regional Council (2013). *Wai-iti Motor Camp Monitoring Programme Annual Report 2012-2013*. Technical Report 13-99.
- Taranaki Regional Council (2012). *Bathing Beach Water Quality State of the Environment Monitoring Report Summer 2011-2012*. Technical Report 2012-19.
- Taranaki Regional Council (2012). *Wai-iti Motor Camp Monitoring Programme Annual Report 2011-2012*. Technical Report 12-60.
- Taranaki Regional Council (2011). *Wai-iti Motor Camp Monitoring Programme Annual Report 2010-2011*. Technical Report 11-03.
- Taranaki Regional Council (2010). *Wai-iti Motor Camp Monitoring Programme Annual Report 2009-2010*. Technical Report 10-06.
- Taranaki Regional Council (2009). *Bathing Beach Water Quality State of Environment Monitoring Report Summer 2008-2009*. Technical Report 09-11.

- Taranaki Regional Council (2009). *Wai-iti Motor Camp Monitoring Programme Annual Report 2008-2009*. Technical Report 09-08.
- Taranaki Regional Council (2008). *Wai-iti Motor Camp Monitoring Programme Annual Report 2007-2008*. Technical Report 08-20.
- Taranaki Regional Council (2007). *Wai-iti Motor Camp Monitoring Programme Annual Report 2006-2007*. Technical Report 07-15.
- Taranaki Regional Council (2006). *Wai-iti Motor Camp Monitoring Programme Annual Report 2005-2006*. Technical Report 06-14.
- Taranaki Regional Council (2005). *Wai-iti Motor Camp Monitoring Programme Annual Report 2004-2005*. Technical Report 05-26.
- Taranaki Regional Council (2004). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 2003-2004*. Technical Report 04-12.
- Taranaki Regional Council (2003). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 2002-2003*. Technical Report 03-09.
- Taranaki Regional Council (2002). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 2001-2002*. TRC Technical Report 02-30.
- Taranaki Regional Council (2001). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 2000-2001*. Technical Report 01-33.
- Taranaki Regional Council (2000). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report* 1999-2000. Technical Report 00-23.
- Taranaki Regional Council (1999). Wai-iti Beach Motor Camp Monitoring Programme Annual Report 1998-1999. Technical Report 99-33.
- Taranaki Regional Council (1998). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report* 1997-1998. Technical Report 98-42.
- Taranaki Regional Council (1997). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report* 1996-1997. Technical Report 97-15.
- Taranaki Regional Council (1996). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 1995-1996*. Technical Report 96-12.
- Taranaki Regional Council (1995). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 1994-1995*. Technical Report 95-19.
- Taranaki Regional Council (1994). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 1993-1994*. Technical Report 94-8.
- Taranaki Regional Council (1993). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 1992-1993*. Technical Report 93-4.
- Taranaki Regional Council (1992). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 1991-1992*. Technical Report 92-10.
- Taranaki Regional Council (1991). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 1990-1991*. Technical Report 91-3.
- Taranaki Regional Council (1990). *Wai-iti Beach Motor Camp Monitoring Programme Annual Report 1989-1990*. Technical Report 90-15.

Appendix I

Resource consents held by Wai-iti Motor Camp Limited

(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.

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

Name of Wai-iti Motor Camp Limited Consent Holder: C/- 538 Carrington Road

R D 1

NEW PLYMOUTH

Consent Granted

Date:

28 March 2003

Conditions of Consent

Consent Granted: To discharge up to 27 cubic metres/day of septic tank

treated sewage effluent via soakage trenches to groundwater in the vicinity of the Waiiti Stream at or about

GR: Q18:379-523

Expiry Date: 1 June 2021

Review Date(s): June 2009, June 2015

Site Location: Beach Road, Waiiti

Legal Description: Pt Lot 2 DP 13368 Waiiti 54B3 54B2 Blk X Mimi SD

Catchment: Waiiti

Consent 1971-3

General conditions

- a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) Unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) The consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i) the administration, monitoring and supervision of this consent; and
 - ii) charges authorised by regulations.

Special conditions

- 1. The consent holder shall, in conjunction with the Taranaki Regional Council, undertake such bacteriological monitoring of the Waiiti Stream and coastal waters of the foreshore as deemed necessary by the Chief Executive, Taranaki Regional Council.
- 2. The consent holder shall ensure proper maintenance of the septic tanks, pumping station and soakage trenches as required.
- 3. The consent holder shall provide records of daily effluent volumes discharged to the soakage trenches at the request of the Chief Executive, Taranaki Regional Council.
- 4. The consent holder shall provide a contingency plan to the satisfaction of the Chief Executive, Taranaki Regional Council, outlining measures to be undertaken in the event of power failure, pump breakdown, pipe blockage and failure of soakage trenches, within three months of granting this consent.
- 5. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2009 and/or June 2015, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

For and on behalf of

Transferred at Stratford on 5 December 2003

Taranaki Regional Cou	uncil	
Chief Executive		



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

Name of

Wai-iti Motor Camp Limited

Consent Holder:

Decision Date: 7 September 2022

Commencement Date: 7 September 2022

Conditions of Consent

Consent Granted: To discharge treated domestic wastewater via soakage

trenches onto and into land at the Wai-iti Beach Motor Camp

Expiry Date: 1 June 2039

Review Date(s): June 2023 and every two years thereafter

Site Location: 30 Beach Road, Wai-iti

Grid Reference (NZTM) 1727948E-5690724N

Catchment: Waiiti

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

Page 1 of 3

Please quote our document number in your reply

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 exercise of this consent shall be undertaken generally in accordance with the documentation submitted in support of the original application and any subsequent applications to change conditions. In case of any contradiction between the documentation submitted in support of previous applications and the conditions of this consent, the conditions of this consent shall prevail.
- 2. The additional soakage trench shall be installed in accordance with the report prepared by Civil Infrastructure Consulting, dated 29 October 2020, submitted with the application, and online by 31 December 2022.
- 3. 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 actual or likely adverse effect on the environment associated with the discharge.
- 4. The consent holder shall advise the Taranaki Regional Council prior to making any change in the processes undertaken at the site which could significantly alter the nature of the discharge. The advice shall be given by emailing consents@trc.govt.nz.
- 5. The discharge shall not exceed 30 m³ in any 24 hour period ending at midnight (New Zealand standard time).
- 6. Before 31 December 2022, the consent holder shall install and thereafter maintain a meter and a datalogger at the site of discharge. The flow meter and datalogger shall be tamper-proof and shall measure and record the rate and volume of the discharge to an accuracy of \pm 5%, at intervals not exceeding 15 minutes.

Note: Water meters and dataloggers must be installed, and regularly maintained, in accordance with manufacturer's specifications in order to ensure that they meet the required accuracy. Even with proper maintenance water meters and dataloggers have a limited lifespan.

- 7. The records of discharge shall:
 - a) include the time, and the rate and volume of the discharge;
 - b) be in a format that, in the opinion of the Chief Executive, Taranaki Regional Council, is suitable for auditing; and
 - c) for each 12-month period ending on 30 June, be provided to the Chief Executive, Taranaki Regional Council within one month after the end of that period.
- 8. There shall be no surface run-off, ponding, or contamination of surface water or groundwater resulting from the discharge of treated wastewater to land.
- 9. There shall be no offensive or objectionable odour beyond the boundaries of the subject property.

- 10. The consent holder shall ensure that there is a point where the treated wastewater can be sampled before it is discharged to the land application area. The consent holder shall provide access for the Taranaki Regional Council to enable a sample to be taken as required.
- 11. Before 31 December 2022, the consent holder shall after consultation with the Chief Executive, Taranaki Regional Council, install at least one piezometer. The piezometer shall be at a location, and to a depth, that enables monitoring to determine any change in groundwater quality resulting from the exercise of this consent. The piezometer shall be installed in accordance with NZS 4411:2001 and all associated costs shall be met by the consent holder.
- 12. From 31 December 2022, the discharge shall be operated in accordance with a 'Management Plan' prepared by the consent holder and approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The Management Plan shall detail how the site is to be managed and monitored and shall include as minimum:
 - a) monitoring the wastewater quality and rate of the discharge;
 - b) management of the wastewater treatment system;
 - c) general housekeeping; and
 - d) reporting.
- 13. 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 2023 and every two years thereafter for the purposes of:
 - a) ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time; and/or
 - b) requiring any data collected in accordance with the conditions of this consent to be transmitted directly to the Taranaki Regional Council's computer system, in a format suitable for providing a 'real time' record over the internet.

Signed at Stratford on 7 September 2022

For and on behalf of Taranaki Regional Council

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 Wai-iti Motor Camp Limited

Consent Holder: 538 Carrington Road

R D 1

NEW PLYMOUTH

Consent Granted

Date:

12 July 2005

Conditions of Consent

Consent Granted: To erect, place and maintain a boulder rip rap toe

protection in the coastal marine area on the Wai-iti Beach

foreshore at or about GR: Q18:379-523

Expiry Date: 1 June 2021

Review Date(s): June 2009, June 2015

Site Location: Beach Road, Urenui

Legal Description: Pt Lot 2 DP 13368 Blk X Mimi SD

Catchment: Tasman Sea

General conditions

- a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) Unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) The consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i) the administration, monitoring and supervision of this consent; and
 - ii) charges authorised by regulations.

Special conditions

- 1. The consent holder shall notify the Chief Executive, Taranaki Regional Council, in writing at least 48 hours prior to commencement, and upon completion of initial construction, and again at least 48 hours prior to, and upon completion of, any subsequent maintenance works.
- 2. The structure authorised by this consent shall be constructed and subsequently maintained in accordance with the engineering plans submitted in support of application 3319 and to ensure the conditions of this consent are met. Any variation to these plans will be subject to the approval of the Chief Executive, Taranaki Regional Council. In the case of any contradiction between the documentation submitted in support of application 3319 and the conditions of this consent, the conditions of this consent shall prevail.
- 3. The landward position of the seawall is determined by survey to the satisfaction of the Chief Executive, Taranaki Regional Council prior to the commencement of works.
- 4. The crest of the structure shall not exceed a maximum height of reduced level plus 7.5 metres.
- 5. The maximum diameter of boulders utilised within the structure shall be no more than 0.8 metres.
- 6. The structure shall have a minimum seaward slope of 2 horizontal to 1 vertical.
- 7. There shall be no refuelling of construction machinery within the coastal marine area.

- 8. The construction, use, maintenance and removal of the structure authorised by this consent shall comply with the noise standards as outlined within section 4.4.3 of the Regional Coastal Plan for Taranaki.
- 9. During construction of the structure no work shall be undertaken during school holidays, public holidays and weekends without the approval of the Chief Executive, Taranaki Regional Council.
- 10. All practicable measures shall be undertaken to ensure maintenance of the structure shall not occur on weekends, public holidays or between 1 December and 31 January.
- 11. During construction and maintenance periods the area subject to works shall have sufficient signage to ensure public safety of any potential safety hazards.
- 12. In situ beach material shall be used only for foreshore reinstatement purposes seaward of the structure, and shall not be used for construction purposes.
- 13. The consent holder shall ensure that the area and volume of foreshore disturbance shall, so far as practicable, be minimised and any areas which are disturbed shall, so far as practicable, be reinstated.
- 14. In the event that any archaeological remains are discovered as a result of the exercise of this consent, the works shall cease immediately at the affected site. The Ngati Mutunga Iwi Authority and the Chief Executive of the Taranaki Regional Council shall be notified immediately, and be invited to inspect the site.
- 15. The structure authorised by this consent shall be constructed within twelve months of the granting of this consent. Upon completion of construction the consent holder shall submit as built plans of the structure if different to those submitted in support of application 3319.
- 16. The consent holder shall undertake all practicable measures to ensure the development of healthy functioning flax, spinefex and other native sand binding plants immediately behind the rock revetment wall to the satisfaction of the Chief Executive, Taranaki Regional Council.
- 17. An annual monitoring programme will be developed for the integrity of the rock wall, erosion of the beach and for any end effects of the surrounding environment. All costs associated with the monitoring will be met by the consent holder.
- 18. The structure authorised by this consent shall be removed and the area reinstated, if and when the structure is no longer required. The consent holder shall notify the Chief Executive, Taranaki Regional Council, in writing at least 48 hours prior to the structures removal and reinstatement.
- 19. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2009 and/or June 2015, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource

Consent 6462-1

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.

Footnote:

i. The structure is proposed to be constructed on New Plymouth District Council esplanade reserve. The New Plymouth District Council takes no responsibility for the maintenance of the structure or effects it might have on the beach or neighbouring properties.

Signed at Stratford on 12 July 2005

For and on behalf of Taranaki Regional Council	
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

Wai-iti Motor Camp Limited

Consent Holder:

Decision Date: 7 September 2022

Commencement Date: 7 September 2022

Conditions of Consent

Consent Granted: To continue to occupy the coastal space associated with

boulder riprap toe protection in the coastal marine area on

the Wai-iti Beach foreshore

Expiry Date: 1 June 2039

Review Date(s): June 2027, June 2033

Site Location: 30 Beach Road, Waiiti

Grid Reference (NZTM) 1727747E-5690675N

Catchment: Tasman Sea

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

Page 1 of 2

Please quote our document number in your reply

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 boulder riprap protection up to 293 metres long.
- 2. The consent holder shall maintain the structure in a safe and sound state such that:
 - a) it does not fall into a state of disrepair and continues to function effectively for the purpose it was designed;
 - b) its structural integrity is maintained; and
 - c) there is no settlement or loss of foundation material.
- 3. The structure shall not cause significant erosion of the foreshore or seabed.
- 4. If significant or potentially significant erosion near the structure occurs, the consent holder shall, as soon as practicable, undertake an investigation to determine its cause and identify options to avoid, remedy or mitigate the adverse effects of that erosion. The details of the investigation shall be approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity.
- 5. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2027 and/or June 2033, 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 7 September 2022

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 <u>actual or likely effects</u> on the receiving environment from the activities during the monitoring year. Administrative performance is concerned with the Company's approach to demonstrating consent compliance <u>in site operations and management</u> 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 <u>and</u> 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.

Appendix III

Taranaki Regional Council Operative Coastal Plan for Taranaki (Rule 40 Structure maintenance minor alteration or minor extension)

Structure maintenance minor alteration or minor extension

Activity	Rule	Coastal management area	Classification	Standards/terms/conditions Matters of control/discretion	Policy reference
Maintenance, minor alteration or minor extension of an existing lawfully established structure and any associated: (a) occupation of space in the common marine and coastal area; (b) disturbance of the foreshore or seabed; (c) deposition in, on or under the foreshore or seabed; and (d) discharge of sediment. Note (1): If the activity does not come within or meet the standards, terms and conditions in this Rule refer to Rule 41 and 42 for network utility structures, Rule 43 and 44 for Port structures, and Rule 45 or Rule 46 for other structures depending on the coastal management area involved. Note (2): Iwi authorities that have requested to be informed of this activity will be advised by the Council.	40	Outstanding Value Estuaries Unmodified Estuaries Modified Open Coast Port	Permitted	 (a) Minor extensions are incidental to maintenance or alteration activities and the structure, including length, width and height, does not increase beyond 5% of the original size; (b) for existing communications cables, electricity transmission or distribution lines the activity does not cause an increase in the design voltage above 33kV and the new or altered cables or lines are not lower in height above the foreshore or seabed; (c) materials used match the existing materials in form and appearance; (d) for structures identified in Schedule 6A and B [Historic heritage]: (i) there are no changes to the existing surface treatment of fabric, painting of any previously unpainted surface, or the rendering of any previously unpainted surface, or the rendering of any previously un-rendered surface; (ii) there is no abrasive or high-pressure cleaning method, such as sand or water blasting, used; (e) after reasonable mixing, any discharge does not give rise to: (i) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; (ii) any conspicuous change of colour or visual clarity; or (iii) any emission of objectionable odour; (f) the extent of disturbance of the foreshore and seabed is limited to the minimum required to undertake the activity and is restored to its previous state 48 hours following the completion of the activity; (g) the activity complies with general standards in Section 8.6; (h) the activity does not have an adverse effect on significant indigenous biodiversity, including those identified in Schedule 4 [Significant indigenous biodiversity, including those identified in Schedule 4 [Significant indigenous biodiversity]; 	

Activity	Rule	Coastal management area	Classification	Standards/terms/conditions Matters of control/discretion	Policy reference
				 the activity does not have a significant adverse effect on the values associated with taonga species identified in Schedule 5 [Taonga species]; 	
				 no fuelling of vehicles or machinery occurs in the coastal marine area, other than in the Port coastal management area. This restriction does not apply to ships; and 	
				(k) Taranaki Regional Council is informed of the activity at least five working days before commencement by entering details of the activity at www.trc.govt.nz/informcouncil .	

Appendix IV

Daily effluent volume data (m³) provided by Wai-iti Beach Retreat for 2022-2023

WAI-ITI

Sewage Volumes

Date Read	Average Volume per
Date Nead	day
1/07/2022	1.51
2/07/2022	0.23
3/07/2022	2.34
4/07/2022	0.93
5/07/2022	1.55
6/07/2022	2.35
7/07/2022	0.37
8/07/2022	4.03
9/07/2022	7.11
10/07/2022	5.14
11/07/2022	9.58
12/07/2022	9.40
13/07/2022	19.66
14/07/2022	8.63
15/07/2022	4.37
16/07/2022	4.02
17/07/2022	4.78
18/07/2022	3.60
19/07/2022	1.60
20/07/2022	3.14
21/07/2022	3.98
22/07/2022	3.95
23/07/2022	1.55
24/07/2022	2.25
25/07/2022	4.51
26/07/2022	2.26
27/07/2022	8.54
28/07/2022	8.85
29/07/2022	4.43
30/07/2022	7.61
31/07/2022	10.48
1/08/2022	7.51
2/08/2022	3.19
3/08/2022	1.67
4/08/2022	3.03
5/08/2022	2.44
6/08/2022	1.51
7/08/2022	4.23
8/08/2022	5.02
9/08/2022	6.12
10/08/2022	3.17

Date Read	Average Volume per day
11/08/2022	2.39
12/08/2022	2.44
13/08/2022	2.34
14/08/2022	2.69
15/08/2022	2.49
16/08/2022	2.32
17/08/2022	2.32
18/08/2022	2.34
19/08/2022	33.87
20/08/2022	33.62
21/08/2022	12.55
22/08/2022	4.55
23/08/2022	4.21
24/08/2022	8.16
25/08/2022	4.16
26/08/2022	0.68
27/08/2022	2.53
28/08/2022	3.84
29/08/2022	4.55
30/08/2022	2.05
31/08/2022	0.13
1/09/2022	0.15
2/09/2022	0.86
3/09/2022	0.85
	1.16
4/09/2022 5/09/2022	3.16
	1.87
6/09/2022	3.71
7/09/2022	1.87
8/09/2022	3.95
9/09/2022	1,06
10/09/2022	2.01
11/09/2022	2.28
12/09/2022	3.20
13/09/2022	
14/09/2022	2.17
15/09/2022	
16/09/2022	2.60
17/09/2022	
18/09/2022	3.48
19/09/2022	3.33
20/09/2022	3.01
21/09/2022	2.54
22/09/2022	4.05
23/09/2022	2.01
24/09/2022	2.02

Date Read	Average Volume per
Date Noda	day
25/09/2022	1.97
26/09/2022	2.06
27/09/2022	3.61
28/09/2022	3.03
29/09/2022	1.32
30/09/2022	2.23
1/10/2022	2.45
2/10/2022	4.28
3/10/2022	1.00
4/10/2022	2.35
5/10/2022	7.73
6/10/2022	4.07
7/10/2022	1.20
8/10/2022	1.61
9/10/2022	2.61
10/10/2022	2.88
11/10/2022	2.05
12/10/2022	1.75
13/10/2022	2.96
14/10/2022	1.77
15/10/2022	2.20
16/10/2022	1.87
17/10/2022	2.67
18/10/2022	2.56
19/10/2022	1.41
20/10/2022	2.41
21/10/2022	1.35
22/10/2022	1.30
23/10/2022	2.74
24/10/2022	3.96
25/10/2022	2.32
26/10/2022	2.11
27/10/2022	1.02
28/10/2022	1.96
29/10/2022	2.22
30/10/2022	2.32
31/10/2022	4.48
1/11/2022	1.76
2/11/2022	1.29
3/11/2022	2.28
4/11/2022	1.18
5/11/2022	1.94
6/11/2022	3.44
7/11/2022	1.40
8/11/2022	1.97

Date Read	Average Volume per
Dato Hoda	day
9/11/2022	2.43
10/11/2022	2.61
11/11/2022	1.50
12/11/2022	2.83
13/11/2022	2.41
14/11/2022	2.57
15/11/2022	2.16
16/11/2022	1.38
17/11/2022	1.99
18/11/2022	4.78
19/11/2022	1.46
20/11/2022	2.37
21/11/2022	4.27
22/11/2022	1.55
23/11/2022	2.51
24/11/2022	2.17
25/11/2022	1.39
26/11/2022	2.61
27/11/2022	2.23
28/11/2022	0.06
29/11/2022	1.25
30/11/2022	2.09
1/12/2022	1.38
2/12/2022	1.91
3/12/2022	2.26
4/12/2022	1.47
5/12/2022	2.07
6/12/2022	2.16
7/12/2022	1.40
8/12/2022	1.92
9/12/2022	1.32
10/12/2022	1.26
11/12/2022	1.72
12/12/2022	2.20
13/12/2022	1.35
14/12/2022	1.65
15/12/2022	2.08
16/12/2022	1.22
17/12/2022	2.04
18/12/2022	2.15
19/12/2022	1.53
20/12/2022	1.33
21/12/2022	2.21
22/12/2022	5.36
23/12/2022	3.53

Date Read	Average Volume per
Date Nead	day
24/12/2022	3.21
25/12/2022	3.71
26/12/2022	3.74
27/12/2022	12.72
28/12/2022	7.33
29/12/2022	9.06
30/12/2022	2.44
31/12/2022	5.40
1/01/2023	8.11
2/01/20231	6.21
3/01/2022	12.70
4/01/2023	3.51
5/01/2023	7.07
6/01/2023	6.48
7/01/2023	7.24
8/01/2023	6.78
9/01/2023	7.21
10/01/2023	4.05
11/01/2023	4.36
12/01/2023	3.04
13/01/2023	4.49
14/01/2023	2.15
15/01/2023	7.02
16/01/2023	5.68
17/01/2023	4.82
18/01/2023	2.39
19/01/2023	2.34
20/01/2023	0.00
21/01/2023	4.50
22/01/2023	2.82
23/01/2023	0.00
24/01/2023	0.00
25/01/2023	0.00
26/01/2023	0.00
27/01/2023	1.41
28/01/2023	6.13
29/01/2023	6.13
30/01/2023	1.80
31/01/2023	2.61
1/02/2023	0.22
2/02/2023	1.65
3/02/2023	3.84
4/02/2023	3.37
5/02/2023	0.23
6/02/2023	7.26
	

Date Read	Average Volume per day
7/02/2023	3.50
8/02/2023	1.29
9/02/2023	1.10
10/02/2023	2.63
11/02/2023	3.21
12/02/2023	7.35
13/02/2023	4.17
14/02/2023	6.22
15/02/2023	3.22
16/02/2023	0.25
17/02/2023	1.09
18/02/2023	1.67
19/02/2023	3.35
20/02/2023	3.45
21/02/2023	3.26
22/02/2023	1.36
23/02/2023	1.56
24/02/2023	2.30
25/02/2023	6.25
26/02/2023	5.76
27/02/2023	4.71
28/02/2023	1.09
1/03/2023	2.50
2/03/2023	2.30
3/03/2023	2.34
4/03/2023	1.90
5/03/2023	5.72
6/03/2023	1.26
7/03/2023	0.56
8/03/2023	2.46
9/03/2023	2.19
10/03/2023	1.99
11/03/2023	9.13
12/03/2023	5.23
13/03/2023	8.72
14/03/2023	0.94
15/03/2023	0.66
16/03/2023	0.80
17/03/2023	0.80
18/03/2023	3.53
19/03/2023	5.10
20/03/2023	3.84
21/03/2023	0.20
22/03/2023	2.62
23/03/2023	1.26

Date Read	Average Volume per day
24/03/2023	1.50
25/03/2023	2.85
	2.05
26/03/2023	1.48
27/03/2023	1.14
28/03/2023	1.79
29/03/2023	1.79
30/03/2023	2.91
31/03/2023	2.79
1/04/2023	6.36
2/04/2023	4.47
3/04/2023	
4/04/2023	2.97
5/04/2023	1.19 1.33
6/04/2023	
7/04/2023	1.25
8/04/2023	7.10
9/04/2023	6.58
10/04/2023	6.34
11/04/2023	5.99
12/04/2023	3.34
13/04/2023	2.20
14/04/2023	2.20
15/04/2023	2.62
16/04/2023	3.55
17/04/2023	3.25
18/04/2023	2.37
19/04/2023	2.60
20/04/2023	0.96
21/04/2023	1.10
22/04/2023	5.16
23/04/2023	0.92
24/04/2023	1.93
25/04/2023	3.95
26/04/2023	1.05
27/04/2023	0.97
28/04/2023	2.06
29/04/2023	1.05
30/04/2023	4.40
1/05/2023	1.02
2/05/2023	1.73
3/05/2023	1.78
4/05/2023	6.94
5/05/2023	5.11
6/05/2023	7.33
7/05/2023	2.23

Date Read	Average Volume per day
0/05/2022	3.57
8/05/2023	2.85
9/05/2023	0.89
10/05/2023	3.94
11/05/2023	5.94 6.66
12/05/2023	
13/05/2023	3.42 3.10
14/05/2023	1.65
15/05/2023	
16/05/2023	2.78
17/05/2023	1.05
18/05/2023	1.24
19/05/2023	1.08
20/05/2023	2.49
21/05/2023	2.42
22/05/2023	2.85
23/05/2023	5.67
24/05/2023	1.05
25/05/2023	1.27
26/05/2023	2.15
27/05/2023	0.99
28/05/2023	2.04
29/05/2023	1.84
30/05/2023	1.49
31/05/2023	1.88
1/06/2023	1.29
2/06/2023	1.96
3/06/2023	1.64
4/06/2023	1.83
5/06/2023	3.67
6/06/2023	2.46
7/06/2023	1.53
8/06/2023	1.34
9/06/2023	1.20
10/06/2023	1.42
11/06/2023	1.46
12/06/2023	1.56
13/06/2023	1.27
14/06/2023	1.28
15/06/2023	1.33
16/06/2023	1.41
17/06/2023	2.56
18/06/2023	2.69
19/06/2023	1.33
20/06/2023	1.54
21/06/2023	1.24

Date Read	Average Volume per day
22/06/2023	2.23
23/06/2023	0.56
24/06/2023	1.73
25/06/2023	0.77
26/06/2023	2.19
27/06/2023	1.96
28/06/2023	3.24
29/06/2023	1.47
30/06/2023	1.11

Total Volume

<u>1,154.59</u>