Wai-iti Beach Retreat Monitoring Programme Annual Report 2018-2019

Technical Report 2019-08

ISSN: 1178-1467 (Online)

Document: 2267008 (Word)

Document: 2275192 (Pdf)

Taranaki Regional Council

Private Bag 713

STRATFORD

July 2019

Executive summary

Wai-iti Motor Camp Ltd (the Company) operates the Wai-iti Beach Retreat (the Retreat), located in North Taranaki. The Company holds resource consents to discharge septic tank treated sewage to groundwater via soakage trenches and to erect, place and maintain a rock wall along the front of the accommodation on the Wai-iti Beach foreshore. This report for the period July 2018 to June 2019 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.

The Company holds two resource consents, which include a total of 24 conditions setting out the requirements that the Company must satisfy. The Company holds one consent to allow them to discharge treated septic tank effluent to groundwater, and one consent for a boulder rip rap toe protection in the coastal marine area.

During the monitoring period, the Company demonstrated an overall high level of environmental performance.

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 routine bacteriological water sampling of the Wai-iti Stream and Wai-iti Beach on one occasion.

The monitoring showed that the Retreat was well maintained during the period under review, with several improvements made to the wastewater treatment system, including the installation of an additional soakage trench. The wastewater treatment system at the Retreat did not adversely affect the water quality of the local freshwater and coastal environments. Although high bacteriological results were returned from the routine sampling round in January 2019, these counts were attributed to surface runoff draining the upstream agricultural catchment, following the rains that preceded the sampling. Two follow-up samples were collected from the Wai-iti Stream, upstream and downstream of the Retreat, during the following routine inspection. The results of this sampling suggested that the Retreat was not influencing the water quality of the Wai-iti Stream.

By comparison with previous years, the monitoring indicated an improvement in the environmental performance of the Company. There were no Unauthorised Incidents 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 and administrative performance with the resource consents.

For reference, in the 2018-2019 year, consent holders were found to achieve a high level of environmental performance and compliance for 83% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 13% of the consents, a good level of environmental performance and compliance was achieved.

In terms of overall environmental and compliance performance by the Company over the last several years, this report shows that the Company's performance is improving.

This report includes recommendations for the 2019-2020 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 and administrative performance | 3 |
| | 1.2 | Process | description | 4 |
| | | 1.2.1 | Wastewater treatment system | 4 |
| | | 1.2.2 | Rock wall | 5 |
| | 1.3 | Resour | ce consents | 5 |
| | 1.4 | Monito | ring programme | 6 |
| | | 1.4.1 | Introduction | 6 |
| | | 1.4.2 | Programme liaison and management | 6 |
| | | 1.4.3 | Site inspections | 6 |
| | | 1.4.4 | Bacteriological sampling | 6 |
| 2 | | Results | | 9 |
| | 2.1 | Inspect | ions | 9 |
| | 2.2 | Results | of bacteriological monitoring | 10 |
| | 2.3 | Provisio | on of consent holder data | 11 |
| | 2.4 | Inciden | ts, investigations, and interventions | 11 |
| 3 | | Discussio | n | 12 |
| | 3.1 | Discuss | ion of site performance | 12 |
| | 3.2 | Environ | mental effects of exercise of consents | 12 |
| | 3.3 | Evaluat | ion of performance | 13 |
| | 3.4 | Recom | mendations from the 2017-2018 Annual Report | 15 |
| | 3.5 | Alterati | ons to monitoring programmes for 2019-2020 | 15 |
| 4 | | Recomme | endations | 17 |
| Gloss | sary of | common te | rms and abbreviations | 18 |
| Biblio | ography | y and refere | ences | 20 |
| Appe | endix I | Resource co | onsents held by Wai-iti Motor Camp Ltd | |

Appendix II Daily effluent volume data provided by Wai-iti Motor Camp Ltd for 2018-2019

List of tables

| Table 1 | Resource consents held by Wai-iti Motor Camp Ltd | 5 |
|----------|--|----------|
| Table 2 | Locations of bacteriological sampling sites at the Wai-iti Beach Retreat | 7 |
| Table 3 | Marine recreational bathing guidelines (MfE, 2003) | 8 |
| Table 4 | Summary of previous bacteriological results, with <i>Escherichia coli</i> (<i>E. coli</i>) measured in MPN/100 ml, enterococci (Ent) in cfu/100 ml, and electrical conductivity (EC) in mS/m@20 ^o (1993-2018) | °C 10 |
| Table 5 | Bacteriological monitoring results for Wai-iti Beach Retreat (2018-2019) | 11 |
| Table 6 | Incidents, investigations, and interventions summary table | 11 |
| Table 7 | Summary of performance for consent 1971-3 | 13 |
| Table 8 | Summary of performance for consent 6462-1 | 13 |
| Table 9 | Evaluation of environmental performance over time | 15 |
| | List of figures | |
| Figure 1 | Locations of wastewater treatment system and sampling sites at the Wai-iti Beach Retreat | 7 |
| | List of photos | |
| Photo 1 | Wai-iti Beach Retreat | 1 |
| Photo 2 | Wai-iti Beach, 22 May 2017 | 2 |
| Photo 3 | Erosion on Wai-iti foreshore prior to construction of the rock wall | 5 |
| Photo 4 | Coastal Site 4 at Wai-iti Beach, looking towards Site 5, with the Wai-iti Stream entering from center-left | m 8 |

1 Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is for the period July 2018 to June 2019 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 (Photos 1 & 2).

This report covers 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 on 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 30th combined annual report to be prepared by the Council for the Company.



Photo 1 Wai-iti Beach Retreat



Photo 2 Wai-iti Beach, 22 May 2017

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 Company 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 at the Retreat.

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 2019-2020 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 socialeconomic 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' inasmuch as is appropriate for each activity. Monitoring programmes are not only based on existing permit conditions, but also on the obligations of the RMA to assess the effects of the exercise of consents. In accordance with Section 35 of the RMA, the Council undertakes compliance monitoring for consents and rules in regional plans, and maintains an overview of the performance of resource users and consent holders. Compliance monitoring, including both activity and impact monitoring, enables the Council to continually re-evaluate its approach and that of consent holders to resource management and, ultimately, through the refinement of methods and considered responsible resource utilisation, to move closer to achieving sustainable development of the region's resources.

1.1.4 Evaluation of environmental and administrative performance

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

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 significant 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 in response to unauthorised incident reports, 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 in response to unauthorised incident reports. 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 in response to unauthorised incident reports. Cumulative adverse effects of a persistent moderate non-compliant activity could elevate an 'improvement required' issue to this level. Typically there were grounds for either a prosecution or an infringement notice in respect of effects.

Administrative performance

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

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

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

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

For reference, in the 2018-2019 year, consent holders were found to achieve a high level of environmental performance and compliance for 83% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 13% of the consents, a good level of environmental performance and compliance was achieved.¹

1.2 Process description

1.2.1 Wastewater treatment system

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.

These multiple soakage trenches work on a rotational basis and were first commissioned in 1991 in response to inadequate treatment of the effluent by the previous system.

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.

¹ The Council has used these compliance grading criteria for 15 years. They align closely with the 4 compliance grades in the MfE Best Practice Guidelines for Compliance, Monitoring and Enforcement, 2018

1.2.2 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 Retreat. Fresh erosion scarps were cut into these banks for nearly the full beach frontage, where no system of protection existed (Photo 3).



Photo 3 Erosion on Wai-iti foreshore prior to construction of the rock wall

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. This consent was granted in July 2005. To mitigate any possible end effects, the area between the public entrance and the river was also protected using the boulder rip rap method.

1.3 Resource consents

The Company 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 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 | Expires |
|-------------------|---|-------------------|-----------|-------------|
| | Water discharge permits | | | |
| 1971-3 | To discharge up to 27 m³ per day of septic tank treated sewage effluent via soakage trenches to groundwater in the vicinity of the Wai-iti Stream | 21 August 1991 | June 2015 | 1 June 2021 |
| | Coastal permits | | | |

| Conser numbe | Purnose | Granted | Review | Expires |
|-----------------|--|-----------------|-----------|-------------|
| 6462- | To erect, place and maintain a boulder rip rap toe protection in the coastal marine area on the Wai-iti Beach foreshore | 12 July 2005 | June 2015 | 1 June 2021 |

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 Retreat consisted of three 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;
- in discussion over monitoring requirements;
- preparation for any consent reviews, renewals or new consent applications;
- advice on the Council's environmental management strategies and content of regional plans; and
- consultation on associated matters.

1.4.3 Site inspections

The Retreat was visited three times during the monitoring period. With regard to consents 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. Air inspections focused on plant processes with associated actual and potential emission sources and characteristics, including potential odour, dust, noxious or offensive emissions. The neighbourhood was surveyed for environmental effects.

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

1.4.4 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, Photo 4). The additional sampling rounds that had been included in recent years in response to elevated faecal indicator bacteria (FIB) counts in the stream were discontinued, as recommended in the 2017-2018 annual report. Follow-up sampling of the upstream and downstream sites was carried out during the third inspection, in response to the elevated counts recorded during the second inspection.

The sampling sites have mostly been monitored since 1994. WIT000460, located approximately 10 m downstream of the tributary, was selected 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 |

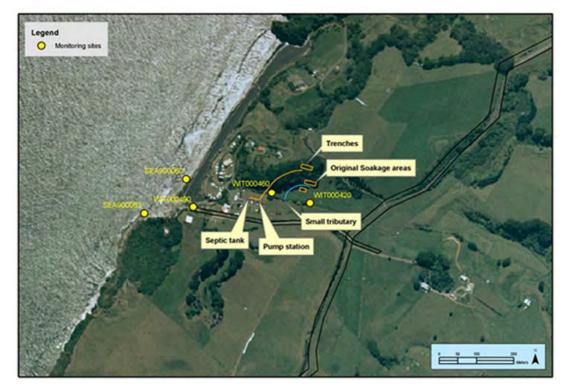


Figure 1 Locations of wastewater treatment system and sampling sites at the Wai-iti Beach Retreat

Samples were analysed for temperature, conductivity and the FIB, enterococci and *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 moderate 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 Marine recreational bathing guidelines (MfE, 2003)

| | Indicator | | 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 4 Coastal Site 4 at Wai-iti Beach, looking towards Site 5, with the Wai-iti Stream entering from center-left

2 Results

2.1 Inspections

6 December 2018

Conditions were overcast. The camp manager was present at the time of the inspection, and reported that the camp was currently empty. The camp was fully booked for the upcoming weekend, and it was expected to become increasingly busy, heading into the peak season. No visual issues or offensive odours were noted during the inspection.

The flow meter and log book were visually assessed during the inspection, and appeared to be consistent. Flow readings had been recorded daily.

The camp manager reported that wastewater treatment system maintenance had been carried out, including rat proofing the delivery pipes, moving the delivery pipes above ground to facilitate system maintenance, and installing an additional trench at the western end of the slope to replace the disconnected trench that had previously had poor performance. Three trenches were now operating in rotation.

The sea wall was inspected on this occasion. Neither the wall nor the land behind it appeared to be suffering from any obvious erosion or degradation. Minor maintenance works that had recently been carried out on the sea wall were not notified to Council prior to or upon completion of the works, as required by condition 1 of consent 6462-1. The Company was reminded of their responsibility to notify the Council of any works on the sea wall through an inspection notice and the potential for enforcement action should this not happen in future.

As per recommendations made in the 2017-2018 annual consent compliance monitoring report, the two additional sampling rounds were removed from the 2018-2019 programme. Bacteriological monitoring was therefore not undertaken during this site inspection.

Overall, the camp appeared to be operating in compliance with its resource consents at the time of the inspection.

14 January 2019

Conditions were overcast with a light breeze, at the time of the inspection. The camp manager was present, and reported that approximately ten people were staying on site.

No system maintenance/upgrades or overflow events were reported to the inspecting officer, and no issues were noted during the inspection, although moderate odours were noticed at the pump station and strong odours at the soakage trenches. The flow meter and daily log book were not sighted on this occasion.

Five water samples were collected during the inspection. Although bacteriological counts came back high for all three freshwater samples collected and for one of the seawater sites, these results were not attributed to the camp's wastewater treatment system, and instead appeared to be a result of upstream influence following the preceding rainfall.

The sea wall was not inspected on this occasion.

Overall, the camp appeared to be operating in compliance with its resource consents at the time of the inspection.

1 February 2019

Conditions were overcast, and dry weather preceded the inspection. The camp manager was present at the time of the inspection, and reported that approximately 15 people were staying on site.

No system maintenance, upgrades or overflow events were reported to the inspecting officer, and no issues were noted during the inspection. The flow meter and daily log book were not sighted on this occasion.

Two water samples were collected during the inspection, in order to capture any potential, subtle differences in water quality between the upstream and downstream sites which could have been masked by the rainfall-related, elevated counts recorded during the previous inspection. There was no significant difference in FIB counts between the upstream and downstream samples.

Overall, the camp appeared to be operating in compliance with its resource consents at the time of the inspection.

2.2 Results of bacteriological monitoring

A summary of historical bacteriological results from January 1993 to January 2018 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. These higher FIB counts are typically not reflected at the coastal sites, where a high degree of mixing and dilution occurs where the stream meets the Tasman Sea.

Table 4 Summary of previous bacteriological results, with *Escherichia coli* (*E. coli*) measured in MPN/100 ml, enterococci (Ent) in cfu/100 ml, and electrical conductivity (EC) in mS/m@20°C (1993-2018)

| | | Upstream WIT000420 | | nstream tary 0460 | Strea bea WIT00 | ach | Coast 7 | | Coast SEA90 | |
|-------------------|---------|-----------------------|---------|-------------------------|-----------------------|------|---------|-------|-------------|-------|
| | E. coli | EC | E. coli | EC | E. coli | EC | Ent | EC | Ent | EC |
| Number of samples | 27 | 28 | 21 | 22 | 23 | 24 | 26 | 25 | 25 | 24 |
| Minimum | 150 | 15.6 | 230 | 15.2 | 210 | 15.8 | 0.5 | 3,430 | 0.5 | 3,790 |
| Maximum | 2,700 | 20 | 3,100 | 20.1 | 2,700 | 21.2 | 210 | 5,020 | 140 | 5,070 |
| Median | 663 | 18 | 727 | 18.2 | 720 | 19.3 | 9 | 4,670 | 7 | 4,660 |

The results of the routine bacteriological monitoring undertaken during the 2018-2019 summer monitoring period, as well as the results of the follow-up monitoring undertaken in February 2019, are presented in Table 5. The FIB counts of the samples collected from the stream during the January 2019 inspection were all found to be above 2,420 MPN/100 ml and well above the MfE 'Action' level for freshwater (Table 3). Additionally, the electrical conductivity values of all five samples were elevated and were higher than the historical maximums (Table 4). The comparably high FIB count of the upstream sample, relative to the downstream sample, indicated that the elevated results were most likely influenced by surface runoff from further upstream, following recent rainfall, rather than the wastewater treatment system at the Retreat. This was supported by the elevated electrical conductivity values recorded for all sites sampled during the inspection.

The enterococci count for the coastal site 75 m north of the stream was also above the MfE 'Action' guideline level during the monitoring year, and was greater than the historical maximum (Tables 3 & 4). The comparatively low enterococci counts at the coastal sites are likely due to the high degree of mixing and dilution where the stream meets the Tasman Sea.

Follow-up samples were collected from the upstream and downstream sites during the third inspection. FIB and electrical conductivity levels were considerably lower during this second sampling round and were found to be similar to the historical medians. There were no significant differences in sample results between the two sites.

Table 5 Bacteriological monitoring results for Wai-iti Beach Retreat (2018-2019)

| Date | Upstream WIT000420 | | 10 m downstream tributary WIT000460 | | Stream at beach WIT000490 | | Coast 75 m N SEA900060 | | | 30 m S 00063 |
|-----------------|-----------------------|-------|---|-------|---------------------------------|-------|---------------------------|-------|-----|-----------------|
| | E. coli | Condy | E. coli | Condy | E. coli | Condy | Ent | Condy | Ent | Condy |
| 14-Jan- 2019 | >2,420 | 23.7 | >2,420 | 23.8 | >2,420 | 25.6 | 1,400 | 5,470 | <1 | 5,470 |
| 01-Feb- 2019 | 687 | 21.8 | 770 | 21.8 | - | - | - | - | - | - |

2.3 Provision of consent holder data

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). The Company complied with this data request and provided daily records of average daily effluent volumes discharged to the soakage trenches between 1 July 2018 and 21 June 2019 (Appendix II). None of the average daily effluent volumes exceeded the consent limit of 27 m³ per day.

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 Company. 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 6 below sets out details of any incidents recorded, additional investigations, or interventions required by the Council in relation to the Company's activities during the 2018-2019 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 6 Incidents, investigations, and interventions summary table

| Date | Details | Compliant (Y/N) | Enforcement Action Taken? | Outcome |
|------------|--|--------------------|--|--|
| 06/12/2018 | Non-notification of minor maintenance works on rock wall | N | Nil- Company reminded of their responsibility to notify the Council of any work on the sea wall. No further action was required. | Works undertaken were inspected and had not resulted in any adverse effects. |

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 2018-2019 monitoring period. Moderate odours were noticed at the pump station and strong odours at the soakage trenches, during the second site inspection on 14 January 2019.

The pump station and soakage trenches at the Retreat were inspected three times during the 2018-2019 monitoring period. The camp manager's regular monitoring and maintenance of the wastewater treatment system appeared to have prevented any issues from arising. Several improvements to the system were also made during the year, including rat proofing the delivery pipes and moving the delivery pipes above ground to facilitate system maintenance. The issue of only two of the three soakage trenches being in operation, identified in the 2017-2018 report, had been addressed. An additional trench was installed, to replace the disconnected trench that had previously had poor performance; three trenches are now operating in rotation.

The pathogens that occur in human faecal matter present a significant 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 rock wall was found to be in good repair, with no obvious end effects or erosion occurring. Minor maintenance was carried out on the rock wall during the monitoring period. As noted previously, notification of these works being undertaken was not provided to the Council as required under consent 6462-1.

3.2 Environmental effects of exercise of consents

The exercise of resource consent 1971-3 did not appear to have notable effects on the environment in the year under review. Although high levels of *E. coli* and enterococci were detected in the stream and at the coast, respectively, during the January 2019 inspection, the Retreat's wastewater treatment system did not appear to be the source of contamination. Rather, it appeared that these results were influenced by upstream contaminants (diffuse pollution) sourced from land use in the catchment. It is likely that this pollution was introduced into the stream by surface runoff from the heavy rainfall that preceded the inspection. This was supported by the higher than usual electrical conductivity results recorded for the freshwater samples. Dissolved organic solids wash into waterways in rainstorm events, causing a positive correlation between electrical conductivity and water flow, which differentiates diffuse pollution from point-source pollution (Davies-Colley, 2009). Further, if the wastewater system was influencing stream water quality, it is expected that higher electrical conductivity and FIB levels would have been recorded downstream of the system, relative to upstream.

The prevailing, north-flowing sea currents in the North Taranaki Bight may explain the high FIB count found at the coastal site 75 m north of the stream. Although there is a considerable mixing and dilution effect where the stream meets the sea, it is expected that the higher than normal FIB counts in the stream would have affected seawater quality in the local area. The turbulent wave action associated with storm events can also release FIB bound to inshore sediments.

No significant environmental effects resulting from the exercise of resource consent 6462-1 were recorded in the year under review. Inspections of the rock wall found no notable end effects, and neither the wall nor the land behind it appeared to be suffering from any obvious erosion or degradation.

3.3 Evaluation of performance

A tabular summary of the consent holder's compliance record for the year under review is set out in Tables 7 and 8.

Purpose: To discharge up to 27 cubic metres/day of septic tank treated sewage effluent via soakage trenches

Table 7 Summary of performance for consent 1971-3

to groundwater in the vicinity of the Wai-iti Stream Means of monitoring during period under Compliance Condition requirement review achieved? Bacteriological sampling to be undertaken in the Wai-iti Council's bacteriological sampling at five sites Yes Stream and the coastal waters 2. Consent holder to ensure maintenance of septic tanks, Site inspections Yes pumps and soakage trenches is undertaken 3. Consent holder to provide

Records were provided to the Council

An updated contingency plan received June

Yes

Yes

provided 2009

5. Optional review provision re environmental effects

Not required

N/A

Overall assessment of consent compliance and environmental performance in respect of this consent

Overall assessment of administrative performance in respect of this consent

High

High

N/A = not applicable

records of daily effluent

soakage trenches4. Contingency plan to be

volumes discharged to the

Table 8 Summary of performance for consent 6462-1

Purpose: To erect, place and maintain a boulder rip rap toe protection in the coastal marine area on the Waiiti Beach foreshore Compliance Condition requirement Means of monitoring during period under review achieved? Notification period before construction or maintenance Council not notified of maintenance works carried out No begins 2. Structure to be constructed and maintained in accordance Site inspections Yes with the engineering plans 3. Landward position of seawall is to be determined by survey to N/A satisfaction of Council Crest of structure to be no higher than reduced level plus Yes Site inspections 7.5 m

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? |
|-----|--|--|----------------------|
| 5. | Maximum size of boulders to be used | Site inspections | Yes |
| 5. | Structure to have minimum slope of 2 to 1 | Site inspections | Yes |
| 7. | No refuelling of machinery within coastal marine area | | N/A |
| 3. | 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 |
| cor | sent | ance and environmental performance in respect of this performance in respect of this consent | High Good |

Table 9 Evaluation of environmental performance over time

| 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 2014 | 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 | - | - | - |
| 2010 2010 | 1971 | 1 | - | - | - |
| 2018-2019 | 6462 | 1 | - | - | - |
| Total | | 15 | 1 | 2 | 0 |

During the year, the Company demonstrated a high level of environmental and high level of administrative performance with the resource consents as defined in Section 1.1.4. By comparison with previous years, the monitoring indicated an improvement in the environmental performance of the Company. There were no Unauthorised Incidents recording non-compliance in respect of this consent holder during the period under review.

3.4 Recommendations from the 2017-2018 Annual Report

In the 2017-2018 Annual Report, it was recommended:

1. THAT monitoring of consented activities at the Retreat in the 2018-2019 year be amended from that undertaken in 2017-2018 by discontinuing the two additional sampling rounds that have been carried out in the past two monitoring periods.

This recommendation was implemented in full.

3.5 Alterations to monitoring programmes for 2019-2020

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 2019-2020 the monitoring programme for the Retreat remains unchanged on the grounds that there were no significant adverse effects on the receiving environment during the 2018-2019 monitoring period.

It should be noted that the proposed programme represents a reasonable and risk-based level of monitoring for the sites 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 2019-2020.

4 Recommendations

- 1. THAT in the first instance, monitoring of consented activities at the Retreat in the 2019-2020 year continues at the same level as in 2018-2019.
- 2. THAT should there be issues with environmental or administrative performance in 2019-2020, 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 a Science Services 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.
- Taranaki Catchment Board (1989). Annual report for Wai-iti Motor Camp 1989. Internal Report.
- 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 Ltd

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

| Consent number | Purpose | Granted | Review | Expires | |
|----------------|---|-------------------|-----------|-------------|--|
| | Water discharge permits | | | | |
| 1971-3 | To discharge up to 27 m³ per day of septic tank treated sewage effluent via soakage trenches to groundwater in the vicinity of the Wai-iti Stream | 21 August 1991 | June 2015 | 1 June 2021 | |
| | 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 July 2005 | June 2015 | 1 June 2021 | |

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 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 | |

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 Counc | il |
|-------------------------|----|
| | |
| | |
| | |
| Chief Executive | |

Appendix II

Daily effluent volume data provided by Wai-iti Motor Camp Ltd for 2018-2019

WAI-ITISewage Volumes

| , | • | | |
|------------------|---------|---------|------|
| 1/06/2018 | 2 | 5.5 | 2.75 |
| 25/06/2018 | 24 | 68.74 | 2.86 |
| 26/06/2018 | 1 | 1.93 | 1.93 |
| 27/06/2018 | 1 | 5.21 | 5.21 |
| 28/06/2018 | 1 | 2.05 | 2.05 |
| 29/06/2018 | 1 | 2.4 | 2.40 |
| 30/06/2018 | 1 | 2.9 | 2.90 |
| 1/07/2018 | 1 | 3.02 | 3.02 |
| 3/07/2018 | 1 | 4.41 | 4.41 |
| 4/07/2018 | 1 | 1.73 | 1.73 |
| 5/07/2018 | 1 | 0.57 | 0.57 |
| | | | |
| | Volume | Average | |
| Date Read | (M3) | Volume | |
| | () | per day | |
| 1.110.0 (2.5.1.5 | 101-1- | | |
| 14/09/2018 | 1317.17 | 0 | |
| 15/09/2018 | 1318.66 | 1.49 | |
| 16/09/2018 | 1320.92 | 2.26 | |
| 17/09/2018 | 1323.08 | 2.16 | |
| 18/09/2018 | 1325.2 | 2.12 | |
| 19/09/2018 | 1325.2 | 0.00 | |
| 20/09/2018 | 1325.2 | 0.00 | |
| 21/09/2018 | 1327.15 | 1.95 | |
| 22/09/2018 | 1328.42 | 1.27 | |
| 23/09/2018 | 1330.37 | 1.95 | |
| 24/09/2018 | 1333.16 | 2.79 | |
| 25/09/2018 | 1333.78 | 0.61 | |
| 26/09/2018 | 1334.44 | 0.66 | |
| 27/09/2018 | 1334.44 | 0.00 | |
| 28/09/2018 | 1335.94 | 1.50 | |
| 29/09/2018 | 1336.61 | 0.67 | |
| 30/09/2018 | 1338.61 | 2.00 | : |
| 1/10/2018 | 1341.43 | 2.82 | |
| 2/10/2018 | 1342.24 | 0.81 | |
| 3/10/2018 | 1346.08 | 3.84 | |
| 4/10/2018 | 1347.28 | 1.20 | |
| 5/10/2018 | 1349.08 | 1.80 | |
| 6/10/2018 | 1351.67 | 2.59 | |
| 7/10/2018 | 1356.16 | 4.49 | |
| 8/10/2018 | 1356.79 | 0.63 | |
| 9/10/2018 | 1356.79 | 0.00 | |

| _ | _ | |
|------------|---------|------|
| 10/10/2018 | 1358.28 | 1.49 |
| 11/10/2018 | 1358.28 | 0.00 |
| 12/10/2018 | 1360.15 | 1.87 |
| 13/10/2018 | 1362.68 | 2.53 |
| 14/10/2018 | 1365.18 | 2.50 |
| 15/10/2018 | 1367.15 | 1.97 |
| 16/10/2018 | 1367.15 | 0.00 |
| 17/10/2018 | 1368.52 | 1.37 |
| 18/10/2018 | 1368.52 | 0.00 |
| 19/10/2018 | 1370.03 | 1.51 |
| 20/10/2018 | 1372.3 | 2.27 |
| 21/10/2018 | 1379.57 | 7.27 |
| 22/10/2018 | 1386.44 | 6.87 |
| 23/10/2018 | 1392.59 | 6.15 |
| 24/10/2018 | 1393.23 | 0.64 |
| 25/10/2018 | 1393.85 | 0.60 |
| 26/10/2018 | 1395.1 | 1.20 |
| 27/10/2018 | 1396.36 | 1.20 |
| 28/10/2018 | 1400.28 | 3.92 |
| 29/10/2018 | 1401.54 | 1.26 |
| 30/10/2018 | 1403.56 | 2.02 |
| 31/10/2018 | 1404.16 | 0.60 |
| 1/11/2018 | 1404.78 | 0.62 |
| 2/11/2018 | 1406.06 | 1.28 |
| 3/11/2018 | 1407.3 | 1.24 |
| 4/11/2018 | 1410.59 | 3.29 |
| 5/11/2018 | 1413.23 | 2.64 |
| 6/11/2018 | 1413.23 | 0.00 |
| 7/11/2018 | 1414.4 | 1.17 |
| 8/11/2018 | 1415.13 | 0.73 |
| 9/11/2018 | 1416.47 | 1.34 |
| 10/11/2018 | 1418.65 | 2.18 |
| 11/11/2018 | 1421.32 | 2.67 |
| 12/11/2018 | 1423.9 | 2.58 |
| 13/11/2018 | 1426.05 | 2.15 |
| 14/11/2018 | 1427.39 | 1.34 |
| 15/11/2018 | 1428.09 | 0.70 |
| 16/11/2018 | 1430.09 | 2.00 |
| 17/11/2018 | 1432.24 | 2.15 |
| 18/11/2018 | 1434.25 | 2.01 |
| 19/11/2018 | 1436.36 | 2.11 |
| 20/11/2018 | 1437.7 | 1.34 |
| 21/11/2018 | 1439.02 | 1.32 |
| 22/11/2018 | 1441.79 | 2.77 |
| 23/11/2018 | 1442.43 | 0.64 |
| | | |

,

| 1 | 1 | F 2.24 |
|------------|---------|--------|
| 24/11/2018 | 1444.44 | 2.01 |
| 25/11/2018 | 1448.7 | 4.26 |
| 26/11/2018 | 1451.5 | 2.80 |
| 27/11/2018 | 1451.5 | 0.00 |
| 28/11/2018 | 1453.58 | 2.08 |
| 29/11/2018 | 1460.76 | 7.18 |
| 30/11/2018 | 1461.96 | 1.20 |
| 1/12/2018 | 1466.29 | 4.33 |
| 2/12/2018 | 1470.51 | 4.22 |
| 3/12/2018 | 1473.44 | 2.93 |
| 4/12/2018 | 1475.49 | 2.05 |
| 5/12/2018 | 1476 | 0.51 |
| 6/12/2018 | 1477.45 | 1.45 |
| 7/12/2018 | 1477.45 | 0.00 |
| 8/12/2018 | 1478.79 | 1.34 |
| 9/12/2018 | 1481.5 | 2.71 |
| 10/12/2018 | 1484.33 | 2.83 |
| 11/12/2018 | 1484.33 | 0.00 |
| 12/12/2018 | 1484.99 | 0.66 |
| 13/12/2018 | 1485.69 | 0.70 |
| 14/12/2018 | 1485.69 | 0.00 |
| 15/12/2018 | 1487.83 | 2.14 |
| 16/12/2018 | 1491.07 | 3.24 |
| 17/12/2018 | 1495.02 | 3.95 |
| 18/12/2018 | 1497.75 | 2.73 |
| 19/12/2018 | 1498.41 | 0.66 |
| 20/12/2018 | 1505.5 | 7.09 |
| 21/12/2018 | 1508.52 | 3.02 |
| 22/12/2018 | 1510.9 | 2.38 |
| 23/12/2018 | 1514.3 | 3.40 |
| 24/12/2018 | 1519.62 | 5.32 |
| 25/12/2018 | 1526.17 | 6.55 |
| 26/12/2018 | 1531.04 | 4.87 |
| 27/12/2018 | 1544.25 | 13.21 |
| 28/12/2018 | 1550.33 | 6.08 |
| 29/12/2018 | 1559.56 | 9.23 |
| 30/12/2018 | 1567.66 | 8.10 |
| 31/12/2018 | 1581.75 | 11.47 |
| 1/01/2019 | 1593.22 | 14.09 |
| 2/01/2019 | 1608.61 | 15.39 |
| 3/01/2019 | 1613.7 | 5.09 |
| 4/01/2019 | 1626.29 | 15.59 |
| 5/01/2019 | 1637.6 | 11.31 |
| 6/01/2019 | 1651.21 | 13.61 |
| 7/01/2019 | 1661.34 | 10.13 |
| | | |

x

| 8/01/2019 | 1 4667 50 | 6.18 |
|--|--------------------|--------------|
| 9/01/2019 | 1667.52 1677.4 | 9.88 |
| 10/01/2019 | 1685.7 | 8.30 |
| 11/01/2019 | 1694.23 | 8.53 |
| 12/01/2019 | 1702.46 | 8.23 |
| and the second s | | 7.45 |
| 13/01/2019 | 1709.91 1717.32 | 7.45 |
| 14/01/2019 | | 7.41 |
| 15/01/2019 | 1724.4 | 3.56 |
| 16/01/2019 | 1727.96 | 4.77 |
| 17/01/2019 | 1732.73 | 2.28 |
| 18/01/2019 | 1735.01 | 6.67 |
| 19/01/2019 | 1741.68 | 10.35 |
| 20/01/2019 | 1752.03 | |
| 21/01/2019 | 1761.92 | 9.98 2.70 |
| 22/01/2019 | 1764.62 | |
| 23/01/2019 | 1767.34 | 2.72 |
| 24/01/2019 | 1770.07 | 2.73 |
| 25/01/2019 | 1772.06 | 1.99 |
| 26/01/2019 | 1776.2 | 4.14 |
| 27/01/2019 | 1786.24 | 10.04 |
| 28/01/2019 | 1792.94 | 6.70 |
| 29/01/2019 | 1794.02 | 1.08 |
| 30/01/2019 | 1796.07 | 2.05 |
| 31/01/2019 | 1797.43 | 1.36 |
| 1/02/2019 | 1798.77 | 1.34 |
| 2/02/2019 | 1805.2 | 6.43 |
| 3/02/2019 | 1812.61 | 7.41 |
| 4/02/2019 | 1816.91 | 4.30 |
| 5/02/2019 | 1822.26 | 5.35 |
| 6/02/2019 | 1828.27 | 6.01 |
| 7/02/2019 | 1833.56 | 5.29 |
| 8/02/2019 | 1835.21 | 1.65 |
| 9/02/2019 | 1840.96 | 5.75 |
| 10/02/2019 | 1849.41 | 8.45 |
| 11/02/2019 | 1856.09 | 6.68 |
| 12/02/2019 | 1858.1 | 2.01 |
| 13/02/2019 | 1859.38 | 1.28 |
| 14/02/2019 | 1862.66 | 3.28 |
| 15/02/2019 | 1865.36 | 2.70 |
| 16/02/2019 | 1869.48 | 4.12 |
| 17/02/2019 | 1878.09 | 8.61 |
| 18/02/2019 | 1885.02 | 6.93 |
| 19/02/2019 | 1890.31 | 5.29 |
| 20/02/2019 | 1892.2 | 1.89 |
| 21/02/2019 | 1894.68 | 2.48 |

•

| _ | _ | Section consists at a second consists and a |
|------------|---------|---|
| 22/02/2019 | 1896.1 | 1.42 |
| 23/02/2019 | 1905.03 | 8.93 |
| 24/02/2019 | 1913.76 | 8.73 |
| 25/02/2019 | 1918.93 | 5.17 |
| 26/02/2019 | 1919.59 | 0.66 |
| 27/02/2019 | 1920.95 | 1.36 |
| 28/02/2019 | 1922.42 | 1.47 |
| 1/03/2019 | 1924.9 | 2.48 |
| 2/03/2019 | 1928.69 | 3.79 |
| 3/03/2019 | 1934.34 | 5.65 |
| 4/03/2019 | 1938.31 | 3.97 |
| 5/03/2019 | 1938.31 | 0.00 |
| 6/03/2019 | 1938.31 | 0.00 |
| 7/03/2019 | 1939.66 | 1.35 |
| 8/03/2019 | 1940.37 | 0.71 |
| 9/03/2019 | 1949.44 | 9.07 |
| 10/03/2019 | 1956.97 | 7.53 |
| 11/03/2019 | 1968.6 | 11.63 |
| 12/03/2019 | 1973 | 4.40 |
| 13/03/2019 | 1976.9 | 3.90 |
| 14/03/2019 | 1977.6 | 0.70 |
| 15/03/2019 | 1979.61 | 2.01 |
| 16/03/2019 | 1984.43 | 4.82 |
| 17/03/2019 | 1989.34 | 4.91 |
| 18/03/2019 | 1995.18 | 5.84 |
| 19/03/2019 | 1996.5 | 1.32 |
| 20/03/2019 | 1996.5 | 0.00 |
| 21/03/2019 | 1999.2 | 2.70 |
| 22/03/2019 | 1999.94 | 0.74 |
| 23/03/2019 | 2001.97 | 2.03 |
| 24/03/2019 | 2008.42 | 6.45 |
| 25/03/2019 | 2014.72 | 6.30 |
| 26/03/2019 | 2016.02 | 1.30 |
| 27/03/2019 | 2017.4 | 1.38 |
| 28/03/2019 | 2019.4 | 2.00 |
| 29/03/2019 | 2020.13 | 0.73 |
| 30/03/2019 | 2022.08 | 1.95 |
| 31/03/2019 | 2024.36 | 2.28 |
| 1/04/2019 | 2027.47 | 3.11 |
| 2/04/2019 | 2029.13 | 1.66 |
| 3/04/2019 | 2030.4 | 1.27 |
| 4/04/2019 | 2030.4 | 0.00 |
| 5/04/2019 | 2031.06 | 0.66 |
| 6/04/2019 | 2033.72 | 2.66 |
| 7/04/2019 | 2037.05 | 3.33 |
| | | |

ř

| 1 0/04/0040 | ٠ | |
|-------------|---------|-------|
| 8/04/2019 | 2043 | 5.95 |
| 9/04/2019 | 2043 | 0.00 |
| 10/04/2019 | 2043 | 0.00 |
| 11/04/2019 | 2045.33 | 2.33 |
| 12/04/2019 | 2049.55 | 4.22 |
| 13/04/2019 | 2052.9 | 3.35 |
| 14/04/2019 | 2060 | 7.10 |
| 15/04/2019 | 2062.07 | 2.07 |
| 16/04/2019 | 2062.69 | 0.62 |
| 17/04/2019 | 2064.08 | 1.39 |
| 18/04/2019 | 2065.33 | 1.25 |
| 19/04/2019 | 2066.53 | 1.20 |
| 20/04/2019 | 2074.26 | 7.73 |
| 21/04/2019 | 2079.84 | 5.58 |
| 22/04/2019 | 2096.15 | 16.31 |
| 23/04/2019 | 2099.34 | 3.19 |
| 24/04/2019 | 2108.54 | 9.20 |
| 25/04/2019 | 2112.4 | 3.86 |
| 26/04/2019 | 2115.7 | 3.30 |
| 27/04/2019 | 2118.92 | 3.22 |
| 28/04/2019 | 2125.43 | 6.51 |
| 29/04/2019 | 2135.01 | 9.58 |
| 30/04/2019 | 2140.01 | 5.00 |
| 1/05/2019 | 2141.15 | 1.14 |
| 2/05/2019 | 2141.7 | 0.55 |
| 3/05/2019 | 2141.79 | 0.09 |
| 4/05/2019 | 2143.78 | 1.99 |
| 5/05/2019 | 2145.69 | 1.91 |
| 6/05/2019 | 2146.92 | 1.23 |
| 7/05/2019 | 2147.51 | 0.59 |
| 8/05/2019 | 2148.14 | 0.63 |
| 9/05/2019 | 2148.14 | 0.00 |
| 10/05/2019 | 2148.78 | 0.64 |
| 11/05/2019 | 2150.03 | 1.25 |
| 12/05/2019 | 2151.03 | 1.00 |
| 13/05/2019 | 2155.7 | 4.67 |
| 14/05/2019 | 2157 | 1.30 |
| 15/05/2019 | 2157 | 0.00 |
| 16/05/2019 | 2157.67 | 0.67 |
| 17/05/2019 | 2157.67 | 0.00 |
| 18/05/2019 | 2158.28 | 0.61 |
| 19/05/2019 | 2158.9 | 0.62 |
| 20/05/2019 | 2158.9 | 0.00 |
| 21/05/2019 | 2158.9 | 0.00 |
| 22/05/2019 | 2158.9 | 0.00 |
| 00,2010 | 00.0 | 2 |

| 23/05/2019 | 2158.9 | 0.00 |
|------------|---------|-------|
| 24/05/2019 | 2158.9 | 0.00 |
| 25/05/2019 | 2161.22 | 2.32 |
| 26/05/2019 | 2166.02 | 4.80 |
| 27/05/2019 | 2169.2 | 3.18 |
| 28/05/2019 | 2169.82 | 0.62 |
| 29/05/2019 | 2171.02 | 1.20 |
| 30/05/2019 | 2171.02 | ,,_, |
| 31/05/2019 | | |
| 1/06/2019 | | |
| 2/06/2019 | | |
| 3/06/2019 | 2184.67 | 13.65 |
| 4/06/2019 | | |
| 5/06/2019 | | |
| 6/06/2019 | | |
| 7/06/2019 | 2191.15 | 6.48 |
| 8/06/2019 | | |
| 9/06/2019 | | |
| 10/06/2019 | | |
| 11/06/2019 | | |
| 12/06/2019 | | |
| 13/06/2019 | | |
| 14/06/2019 | 2193.5 | 2.35 |
| 15/06/2019 | | |
| 16/06/2019 | | |
| 17/06/2019 | | |
| 18/06/2019 | | |
| 19/06/2019 | | |
| 20/06/2019 | | |
| 21/06/2019 | 2194.14 | 0.64 |

¥