

Wai-iti Motor Camp
Monitoring Programme
Annual Report
2013-2014
Technical Report 2014–06

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Taranaki Regional Council
Private Bag 713
STRATFORD

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Executive summary

The Wai-iti Motor Camp Limited operates at Wai-iti Beach in North Taranaki. The Company holds a resource consent to discharge septic tank treated sewage to groundwater via soakage trenches. The Company also holds a consent to erect, place and maintain a rock revetment wall along the front of the motor camp on the Wai-iti Beach foreshore. Together, the two consents include a total of 24 conditions setting out the requirements that the Company must satisfy. This report for the period July 2013-June 2014 describes the monitoring programme implemented by the Taranaki Regional Council to assess the environmental performance of the Wai-iti Motor Camp Limited during the period under review.

The Council's monitoring programme for the year under review included three inspections of the wastewater system, including one inspection of the rock rip-rap seawall, and bacteriological water sampling of the Wai-iti Stream and Wai-iti Beach on one occasion.

The monitoring showed a good level of management and operation of the disposal system during the monitoring period as indicated by inspections and bacteriological sampling. *E. coli* counts were high in all Wai-iti Stream samples, including the sample taken upstream of the septic tank system. High faecal indicator bacteria counts are not unusual in streams which drain developed farmland. There was no evidence of any groundwater infiltration from the trenches/wastewater treatment system. A high enterococci count was obtained at one of the Wai-iti Beach sites as a result of heavy rainfall prior to sampling. Historical results from the two coastal sites at this beach provide strong evidence that during dry weather conditions, the beach is suitable for recreational bathing.

In general, the rock rip rap seawall appeared to be structurally sound, however, there was minor slumping at the top of the wall towards the southern end of the beach. These areas had been planted and signs had been erected to ensure pedestrians used the access ramps provided. Large tree trunks had been placed close to the stream mouth in order to reduce erosion of the banks.

During the year, the Wai-iti Motor Camp Limited demonstrated a high level of environmental performance and compliance with the resource consents. During the year under review there were no unauthorised incidents reported in relation to the motor camp. No adverse environmental effects were observed as a result of the Wai-iti Beach Motor Camp Limited wastewater system or rock revetment structure.

This report includes recommendations for the 2014-2015 year.

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1. Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is the Annual Report for the period July 2013-June 2014 by the Taranaki Regional Council describing the monitoring programme associated with resource consents held by Wai-iti Motor Camp Limited. The Company operates a camping ground situated on both sides of the Wai-iti Stream in North Taranaki (Photographs 1, 2).

This report covers the results and findings of the monitoring programme implemented by the Council in respect of the consent held by Wai-iti Motor Camp Limited that relates to septic tank treated sewage effluent to groundwater via soakage trenches and the structural integrity of the seawall. This is the 25th Annual Report to be prepared by the Taranaki Regional Council to cover the Wai-iti Motor Camp Limited water discharges and their effects.



Photograph 1 Wai-iti Motor Camp



Photograph 2 Wai-iti Beach

1.1.2 Structure of this report

Section 1 of this report is a background section. It sets out general information about compliance monitoring under the Resource Management Act and the Council's obligations and general approach to monitoring sites through annual programmes, the resource consents held by Wai-iti Motor Camp Limited 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 Wai-iti Motor Camp.

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

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

Section 4 presents recommendations to be implemented in the 2012-2013 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 Resource Management Act 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 a discharger, and may include cultural and socio-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 (eg, recreational, cultural, or aesthetic);
- (e) risks to the neighbourhood or environment.

In drafting and reviewing conditions on discharge permits, and in implementing monitoring programmes, the Taranaki Regional Council is recognising the comprehensive meaning of 'effects' inasmuch as is appropriate for each discharge source. Monitoring programmes are not only based on existing permit conditions, but also on the obligations of the Resource Management Act to assess the effects of the exercise of consents. In accordance with section 35 of the Resource Management Act 1991, the Council undertakes compliance monitoring for consents and rules in regional plans; and maintains an overview of performance of resource users against regional plans and consents. Compliance monitoring, including impact monitoring, also enables the Council to continuously assess its own performance in resource management as well as that of resource users particularly consent holders. It further enables the Council to continually re-evaluate its approach and that of consent holders to resource management, and, ultimately, through the refinement of methods, 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 holder(s) during the period under review, this report also assigns an overall rating. The categories used by the Council, and their interpretation, are as follows:

- a **high** level of environmental performance and compliance indicates that essentially there were no adverse environmental effects to be concerned about, and no, or inconsequential (such as data supplied after a deadline) non-compliance with conditions.
- a **good** level of environmental performance and compliance indicates that adverse environmental effects of activities during the monitoring period were negligible or minor at most, or, 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, or, there were perhaps some items noted on inspection notices for attention but these items were not urgent nor critical, and follow-up inspections showed they have been dealt with, and any

inconsequential non compliances with conditions were resolved positively, co-operatively, and quickly.

- **improvement required (environmental) or improvement required (administrative compliance)** (as appropriate) indicates that the Council may have been obliged to record a verified unauthorised incident involving measurable environmental impacts, and/or, there were measurable environmental effects arising from activities and intervention by Council staff was required and there were matters that required urgent intervention, took some time to resolve, or remained unresolved at the end of the period under review, and/or, there were on-going issues around meeting resource consent conditions even in the absence of environmental effects. Abatement notices may have been issued.
- **poor performance (environmental) or poor performance (administrative compliance)** indicates generally that the Council was obliged to record a verified unauthorised incident involving significant environmental impacts, or there were material failings to comply with resource consent conditions that required significant intervention by the Council even in the absence of environmental effects. Typically there were grounds for either a prosecution or an infringement notice.

1.2 Process description

1.2.1 Sewage treatment system

All wastewaters from the camping ground enter a septic tank of 143 cubic metre 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 metres 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. There have been no significant problems since installation of the new 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 not a suitable 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.

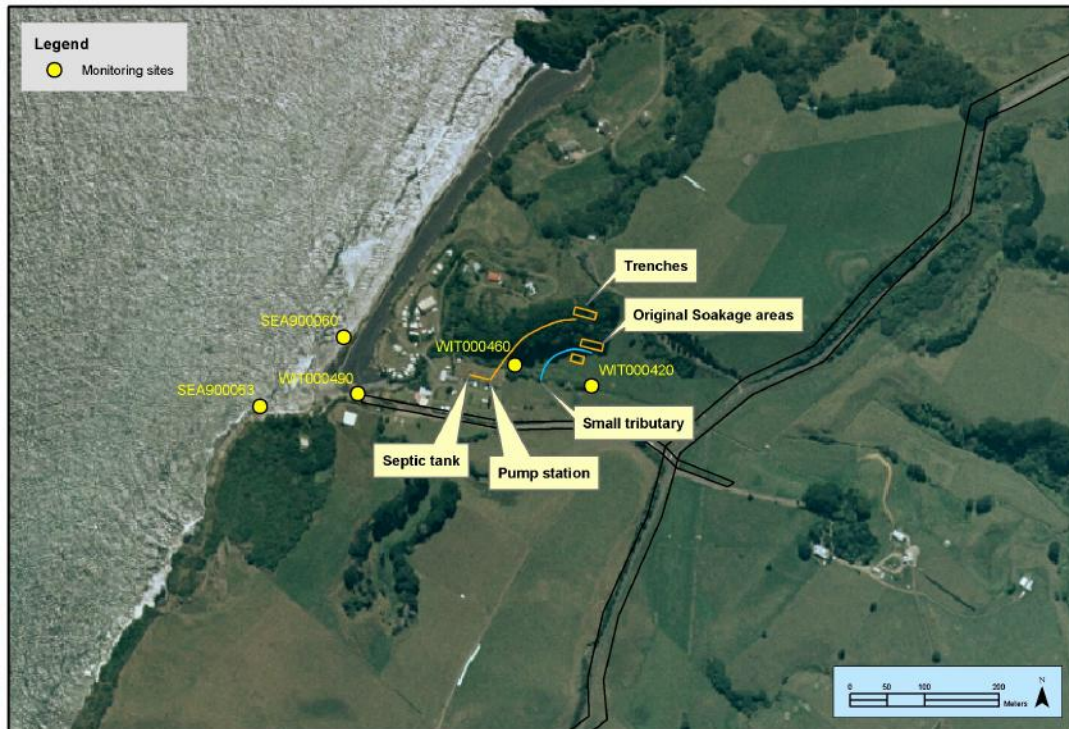


Figure 1 Location of sewage treatment system and sampling sites at the Wai-iti Motor Camp

1.2.2 Rock rip rap seawall

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 motor camp. Fresh erosion scarps were cut into these banks for nearly the full beach frontage where no system of protection existed (Photograph 3).

In 2005 an application was received for a resource consent to provide boulder rip rap protection over a total distance of 293 metres 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.



Photograph 3 Erosion on Wai-iti foreshore prior to construction of the rock rip rap seawall

1.3 Resource consents

1.3.1 Water discharge permit

Section 15(1)(a) of the Resource Management Act 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.

Wai-iti Motor Camp hold water discharge permit **1971** to cover the discharge of up to 27 cubic metres per day of septic tank treated sewage effluent via soakage trenches to groundwater in the vicinity of the Wai-iti Stream.

This permit was first issued by the Taranaki Regional Council on 21 August 1991 and was renewed in 28 March 2003 under Section 87(c) of the Resource Management Act. It is due to expire on 1 June 2021.

There are five special conditions attached to the consent.

Condition 1 requires bacteriological monitoring of the coastal waters of the foreshore and Wai-iti Stream.

Condition 2 requires the consent holder to ensure proper maintenance of the septic tank, pumping station and soakage trenches.

Condition 3 requires the consent holder to provide records of daily effluent volumes discharged.

Condition 4 requires the consent holder to provide a contingency plan for the site.

Condition 5 deals with review of the consent.

1.3.2 Coastal structure

Section 12(b) of the Resource Management Act stipulates that no person may erect, reconstruct, place, alter, extend, remove, or demolish any structure or any part of a structure that is fixed in, on, under, or over any foreshore or seabed, unless the activity is expressly allowed for by a resource consent or a rule in a regional plan, or by national regulations.

Wai-iti Motor Camp Ltd hold coastal permit **6462** to erect, place and maintain a boulder rip rap toe protection in the coastal marine area on the Wai-iti Beach foreshore. This permit was issued in July 2005 under section 87(c) of the Resource Management Act. It is due to expire on 1 June 2021.

There are nineteen special conditions attached to the consent. Conditions 1 to 16 deal with various aspects of the construction of the seawall.

Condition 17 deals with monitoring of the wall.

Condition 18 requires the structure to be removed if it is no longer required, while condition 19 deals with review of consent conditions.

Copies of both permits are attached to this report in Appendix I.

1.4 Monitoring programme

1.4.1 Introduction

Section 35 of the Resource Management Act sets out an obligation for the Taranaki Regional Council to gather information, monitor, and conduct research on the exercise of resource consents, and the effects arising, within the Taranaki region.

The Taranaki Regional 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 Wai-iti Motor Camp consisted of three primary components.

1.4.2 Programme liaison and management

There is generally a significant investment of time and resources by the Taranaki Regional Council in ongoing liaison with resource consent holders over consent conditions and their interpretation and application, in discussion over monitoring requirements, preparation for any reviews, renewals, or new consents, advice on the

Council's environmental management strategies and the content of regional plans, and consultation on associated matters.

1.4.3 Site inspections

The Wai-iti site was inspected three times over the monitoring period. These visits took place in December, January and February which was during and after the normal period of peak camp usage associated with the Christmas break. With regard to the consent for the discharge to ground water, the main points of interest were plant processes with potential or actual discharges to receiving watercourses, including odours, subsurface seepage, overflow events and system maintenance. The neighbourhood was also surveyed for environmental effects.

In addition, the seawall 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 (Table 1, Figure 1); three in the Wai-iti Stream, and two coastal sites either side of the stream mouth (Figure 1, Photograph 4).

Sites, 1, 3, 4 and 5 have been monitored since the 1994-1995 monitoring period. Site 2, approximately 50 metres downstream of the tributary, was selected during the 1999-2000 monitoring period to assess the influence of the tributary.

Table 1 Location of bacteriological sampling sites at Wai-iti Motor Camp

Site	Location	Site code	GPS
1	Wai-iti Stream upstream of beach camp	WIT000420	1727999-5690544
2	Wai-iti Stream approx. 50 m d/s of tributary	WIT000460	1727896-5690572
3	Wai-iti Stream adjacent beach entrance	WIT000490	1727686-5690533
4	Sea coast approx. 75 m north of stream mouth	SEA900060	1727667-5690609
5	Sea coast approx. 30 m south of stream mouth	SEA900063	1727555-5690516

Samples were analysed for temperature, conductivity and the faecal indicator bacteria enterococci and *E. coli*. The latter were monitored to provide an indication of potential contamination of the water by animal and/or human excreta.

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

Table 2 Marine recreational bathing guidelines (MfE 2003)

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

**Photograph 4** Photograph taken at site 4, looking towards site 5, with the Wai-iti Stream entering from centre left

2. Results

2.1 Inspections

Three inspections of the Wai-iti Motor Camp Limited sewage disposal system were conducted during the monitoring period, with one inspection also including an examination of the seawall.

The first inspection, on 20 December 2013, was undertaken prior to peak usage. The camp manager reported that there had been no issues with the sewage disposal system since the previous inspection. No odours were detected at the pumping station or trenches (Photograph 5). The camp was quiet, with only two people staying overnight.

During the second inspection, on 9 January 2014, the camp manager reported that there had been no issues with the sewage disposal system. No odours were detected at the pumping station or trenches. The camp was busy, with all cabins appearing occupied. Water samples were taken during the inspection. There had been heavy showers overnight.

The final inspection was undertaken on 19 February 2014. No odours were detected at the pump station or trenches. The camp manager was not around camp at the time of inspection. The camp was relatively quiet with only a few people staying in the cabins.

As part of the February inspection, the rock wall was checked for evidence of erosion. It was evident that work had been undertaken close to the stream mouth, including placement of large tree trunks (Photograph 7) in attempt to minimize the effects of erosion on the banks. There was evidence of minor erosion towards the south west end of the beach. Signs informing the general public of dune replanting and erosion control were present at appropriate locations (areas of erosion) along the bank.



Photograph 5 Wai-iti Motor Camp Limited wastewater treatment system a) trenches on hillside covered with trees, b) pump station



Photograph 6 Erosion along the top of the rock wall



Photograph 7 Tree trunks placed at the stream mouth to reduce erosion

2.2 Results of bacteriological monitoring

A summary of historical bacteriological results from January 1993 to January 2013 is presented in Table 3. The results of the bacteriological monitoring undertaken during the 2013-2014 summer monitoring period are presented in Table 4. Although it was not raining on the morning of sample collection (9 January 2014) there had been heavy rainfall overnight which is reflected in the high faecal indicator bacteria counts obtained (Table 4).

Table 3 Summary of previous bacteriological results (cfu/100ml) January 1993 to January 2013

	Upstream WIT000420		50m d/s tributary WIT000460		Stream at beach WIT000490		Coast 75m N SEA900060		Coast 30m S SEA900063	
	<i>E. coli</i>	Ent	<i>E. coli</i>	Ent	<i>E. coli</i>	Ent	<i>E. coli</i>	Ent	<i>E. coli</i>	Ent
Number of samples	18	20	11	12	17	19	18	21	18	20
Minimum	150	130	230	100	210	130	1	<1	<1	<1
Maximum	15000	1500	2000	1500	2700	1600	200	130	94	140
Median	470	555	660	605	660	560	7	9	7	4
Mean	1468	581	825	666	819	618	22	19	17	15

The 2014 *E. coli* counts were high at all three stream sites (Table 4). Counts at all stream sites were higher than the historical medians and exceeded the MfE 'Action' guideline level (Table 3, 4). The high counts obtained for the control stream site (WIT000420), upstream of the beach camp, indicate that the source of faecal contamination was unlikely to have been from human sewage associated with the camp. Given that the stream drains from developed agricultural land, the most likely sources of faecal contamination are from stock and/or wildfowl.

The 2014 enterococci count at the coastal site north of the stream mouth (SEA900060) reached 'Alert' level (210 cfu/100ml, Table 4, Figure 2). This is the first time a coastal site sample has reached the 'Alert' level since monitoring began in 1993. The high count is likely associated with heavy rainfall prior to sample collection (conductivity 3430 mS/m) Historical results (Table 3) provide strong evidence that during dry weather conditions the beach is generally suitable for recreational bathing.

Table 4 Bacteriological monitoring, 9 January 2014

Site	Site code	<i>E. coli</i> (cfu/100ml)	Enterococci (cfu/100ml)	Conductivity (mS/m)
Wai-iti Stream upstream of beach camp	WIT000420	1500	850	20.0
Wai-iti Stream approx. 50 m d/s of tributary	WIT000460	2300	1400	18.9
Wai-iti Stream adjacent beach entrance	WIT000490	1100	900	20.0
Sea coast approx 75 m N of stream mouth	SEA900060	260	210	3430
Sea coast approx 30 m S of stream mouth	SEA900063	120	19	4580

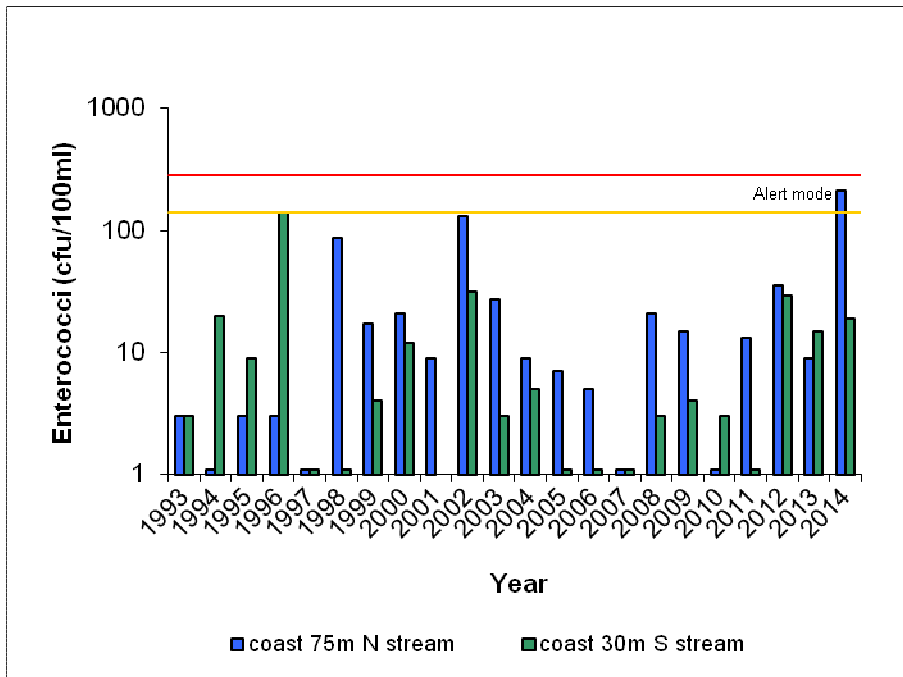


Figure 2 Coastal enterococci (cfu/100 ml) results since 1993

2.3 Investigations, interventions, and incidents

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 consent holders. During the year matters may arise which require additional activity by the Council e.g. 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.

The Taranaki Regional Council operates and maintains a register of all complaints or reported and discovered excursions from acceptable limits and practices, including non-compliance with consents, which may damage the environment. The Unauthorised Incident Register (UIR) includes events where the company concerned has itself notified the Council. The register contains details of any investigation and corrective action taken.

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 company is indeed the source of the incident.

In the 2013-2014 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents in association with Wai-iti Motor Camp Limited's conditions in resource consents or provisions of Regional Plans.

3. Discussion

3.1 Discussion of plant performance

The three inspections conducted during the 2013-2014 summer period at this beach camp did not indicate any problems with the sewage treatment system. No odours were noted around the septic tank and pump system or the infiltration trenches. The sewage effluent disposal system appeared to be tidy and well maintained throughout the monitoring period.

An updated contingency plan for the site was received in June 2009 and as there have been no significant changes at the site this is considered to be up-to-date.

3.2 Environmental effects of exercise of consents

The results of routine bacteriological compliance monitoring performed on 9 January 2014 showed that *E.coli* counts were high within the Wai-iti Stream (including upstream of the septic tank system) at the time of sampling. These high counts within the stream are consistent with a stream draining through developed agricultural land.

An enterococci count obtained for one of the two coastal sites reached the MfE 'Alert' guideline level. The high count was associated with low conductivity, indicating freshwater influence from heavy rainfall prior to sampling. Historical results provide strong evidence that during dry weather conditions, the beach is generally suitable for recreational bathing.

There was evidence of erosion around the middle and southern end of the rock rip rap, particularly at the top. However, some areas of erosion had been planted and signs had been erected to guide pedestrians to the access ramps. Additional work had been undertaken since the previous monitoring year in order to reduce erosion around the stream mouth.

3.3 Evaluation of performance

A summary of the Wai-iti Motor Camp's compliance record for the year under review is set out in Tables 5 and 6.

Table 5 Summary of performance for Consent 1971-3 to discharge up to 27 cubic metres/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 of the Wai-iti Stream and the coastal waters	Council's bacteriological sampling at five sites	Yes
2. Consent holder to ensure maintenance of septic tanks, pumps and soakage trenches is undertaken	Site inspections	Yes

Condition requirement	Means of monitoring during period under review	Compliance achieved?
3. Consent holder to provide records of daily effluent volumes discharged to the soakage trenches	Records not requested	N/A
4. Contingency plan to be provided	An updated contingency plan received June 2009	Yes
5. Optional review provision re environmental effects	Next scheduled in 2015, if required	N/A
Overall assessment of consent compliance and environment performance in respect of this consent		High

N/A = not applicable

Table 6 Summary of performance for Consent 6462-1 to erect, place and maintain a boulder rip rap toe protection in the coastal marine area on the Wai-iti Beach foreshore

Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Notification period before construction or maintenance begins		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 7.5m	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
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		N/A
10. No maintenance to be undertaken during weekends or the summer holiday period	No maintenance work has had to be undertaken as yet	N/A
11. Sufficient signage to be in place during construction		N/A

Condition requirement	Means of monitoring during period under review	Compliance achieved?
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		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 Camp. Further monitoring (structure survey) may be required in future	Yes
18. Structure to be removed and reinstated if no longer required		N/A
19. Optional review provision re environmental effects	Next scheduled in 2015, if required	N/A
Overall assessment of consent compliance and environment performance in respect of this consent		High

During the year, the Wai-iti Motor Camp demonstrated a high level of environmental performance and compliance with the resource consents as defined in Section 1.3. During the year under review there were no unauthorised incidents reported in relation to the motor camp. No adverse environmental effects were observed as a result of the Wai-iti Beach Motor Camp wastewater system or rock revetment structure.

3.4 Recommendations from the 2012-2013 Annual Report

In the 2012-2013 Annual Report, it was recommended:

1. THAT monitoring of the sewage discharge system at the Wai-iti Motor Camp in the 2013-2014 year continues at the same level as in 2012-2013.
2. THAT in conjunction with the sewage discharge inspection one inspection is undertaken of the rock wall to assess the integrity of the structure, end effects and any erosion occurring as a result of the rock wall.
3. THAT should monitoring results indicate problems with the sewage treatment systems, extended monitoring of Wai-iti Stream and coastal water quality shall be undertaken.

These recommendations were implemented.

3.5 Alterations to monitoring programmes for 2014-2015

In designing and implementing the monitoring programmes for water discharges in the region, the Taranaki Regional Council has taken into account the extent of information made available by previous authorities, its relevance under the Resource Management Act, the obligations of the Act in terms of monitoring discharges and effects, and subsequently reporting to the regional community, 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 discharging to the environment.

In the case of the Wai-iti Motor Camp Limited wastewater system, the programme for 2013-2014 was unchanged from that for 2012-2013. Similarly, it is proposed that for the 2014-2015 monitoring period that the programme continues at this level. A recommendation to this effect is attached to this report.

4. Recommendations

1. THAT monitoring of the sewage discharge system at the Wai-iti Motor Camp in the 2014-2015 year continues at the same level as in 2013-2014.
2. THAT in conjunction with the sewage discharge inspection one inspection is undertaken of the rock wall to assess the integrity of the structure, end effects and any erosion occurring as a result of the rock wall.
4. THAT should monitoring results indicate problems with the sewage treatment systems, extended monitoring of Wai-iti Stream and coastal water quality shall be undertaken.

Glossary of common terms and abbreviations

The following abbreviations and terms are used within this report:

Action' mode	Marine: two consecutive single samples > 280 enterococci/100ml Freshwater: single sample >550 <i>E. coli</i> /100ml
Alert' mode	Marine: single sample 141-280 enterococci/100ml Freshwater: single sample 261-550 <i>E. coli</i> /100ml
Bacteriological	Micro-organisms selected as indicators of faecal material indicators
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
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	Recreation activities that bring people physically in contact with water, involving a risk of involuntary ingestion or inhalation of water
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
Faecal coliforms	An indicator of the possible presence of faecal material and pathological micro-organisms. Usually expressed as colony forming units per 100 ml sample
Incident	an event that is alleged or is found to have occurred that may have actual or potential environmental consequences or may involve non-compliance with a consent or rule in a regional plan. Registration of an incident by the Council does not automatically mean such an outcome had actually occurred
Intervention	action/s taken by Council to instruct or direct actions be taken to avoid or reduce the likelihood of an incident occurring
Investigation	action taken by Council to establish what were the circumstances/events surrounding an incident including any allegations of an incident
Median	Central value when values are arranged in order of magnitude
Resource consent	refer Section 87 of the RMA. Resource consents include land use consents (refer Sections 9 and 13 of the RMA), coastal permits (Sections 12, 14 and 15), water permits (Section 14) and discharge permits (Section 15)
RMA	Resource Management Act 1991 and subsequent amendments
Temperature	Measured in °C (degrees Celsius)
UI	Unauthorised Incident
UIR	Unauthorised 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
Water quality	The bacteriological condition of a water body as it relates to human health, measured using indicator bacteria

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Appendix I

Resource consents held by Wai-iti Motor Camp



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

CHIEF EXECUTIVE
PRIVATE BAG 713
47 CLOTEN ROAD
STRATFORD
NEW ZEALAND
PHONE 06-765 7127
FAX 06-765 5097

Please quote our file number
on all correspondence

Name of
Consent Holder: Wai-iti Motor Camp Limited
 C/- 538 Carrington Road
 R D 1 New Address:
 NEW PLYMOUTH P O Box 845
 New Plymouth 4340

Consent Granted 28 March 2003
Date:

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

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

www.trc.govt.nz

Consent 1971-3

General conditions

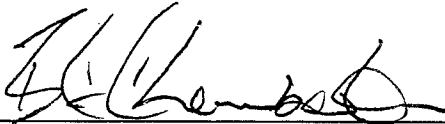
- a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) Unless it is otherwise specified in the conditions of this consent, 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

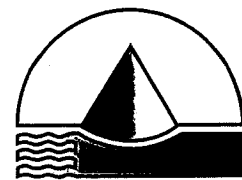
1. The consent holder shall, in conjunction with the Taranaki Regional Council, undertake such bacteriological monitoring of the Waiiti Stream and coastal waters of the foreshore as deemed necessary by the Chief Executive, Taranaki Regional Council.
2. The consent holder shall ensure proper maintenance 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.

Transferred at Stratford on 5 December 2003

For and on behalf of
Taranaki Regional Council



Chief Executive



**TARANAKI
REGIONAL
COUNCIL**

CHIEF EXECUTIVE
PRIVATE BAG 713
47 CLOTEN ROAD
STRATFORD
NEW ZEALAND
PHONE: 06-765 7127
FAX: 06-765 5097
www.trc.govt.nz

Please quote our file number
on all correspondence

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

Name of
Consent Holder: Wai-iti Motor Camp Limited
538 Carrington Road
R D 1
NEW PLYMOUTH

New Address:
P O Box 845
New Plymouth 4340

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

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

www.trc.govt.nz

Working with people • Caring for our environment

Consent 6462-1

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.

Consent 6462-1

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.

Consent 6462-1

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, 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