Remediation New Zealand Ltd Waitara Road Facility

Monitoring Programme Annual Report 2021-2022

Technical Report 2022-25





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Taranaki Regional Council Private Bag 713 Stratford

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Executive summary

Remediation NZ Ltd (the Company) operates a greenwaste collection, composting and compost finishing facility, in addition to worm beds which create vermicompost. It is situated at 96 Waitara Road, Brixton, in the Waiongana catchment.

During the monitoring period, Remediation NZ Ltd demonstrated a good level of environmental performance and high level of administrative performance.

This report for the period July 2021 to June 2022 describes the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess the Company's environmental and consent compliance performance during the period under review. The report also details the results of the monitoring undertaken and assesses the environmental effects of the Company's activities.

The Company holds one resource consent, which include a total of 11 conditions setting out the requirements that the Company must satisfy. The Company holds one consent to discharge stormwater onto and into land and into the unnamed tributary of the Waiongana Stream.

The Council's monitoring programme for the year under review included six inspections, and one water sample collected for physicochemical analysis.

As a result of an abatement notice issued during the 2020-2021 period, the Company contracted the consultant Pattle Delamore and Partners (PDP). PDP performed a review of the site stormwater and provided a memorandum to the Company (26 October 2021) containing eight recommendations for improving the stormwater system.

It was noted during the site inspections that the Company implemented these recommendations, including construction of new settling ponds, increased capacity of settling ponds, redirection of roof water, repairs to sheds to prevent loss of product, repair of broken pipework, improved yard maintenance, and redirection of stormwater away from product. As a result stormwater management at the site was much improved during the 2021-2022 period.

Inspections and sampling showed that the discharge from the site had improved significantly both visually and chemically when compared with the 2020-2021 period.

During the year, the Company demonstrated a good level of environmental performance and high level of administrative performance with the resource consents as defined in Appendix II.

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

In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance has improved in the year under review.

This report includes recommendations for the 2022-2023 year.

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1 Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is for the period July 2021 to June 2022 by the Council describing the monitoring programme associated with a resource consent held by Remediation New Zealand Ltd, hereafter referred to as the Company. The Company operates a greenwaste collection, composting and compost finishing facility, in addition to worm beds which create vermicompost. It is situated at 96 Waitara Road, Brixton, in the Waiongana catchment.

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 discharges of water in the Waiongana catchment. This is the second annual report to be prepared by the Council to cover the Company's stormwater discharges and their effects (the site has previously been covered in a combined annual report which included the Uruti and Pennington Road sites).

1.1.2 Structure of this report

Section 1 of this report is a background section. It sets out general information about:

- consent compliance monitoring under the Resource Management Act 1991 (RMA) and the Council's obligations;
- the Council's approach to monitoring sites though annual programmes;
- the resource consents held by the Company in the Waiongana 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 Company's site.

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

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

Section 4 presents recommendations to be implemented in the 2022-2023 monitoring year.

A glossary of common abbreviations and scientific terms, and a bibliography, are presented at the end of the report.

1.1.3 The Resource Management Act 1991 and monitoring

The RMA primarily addresses environmental 'effects' which are defined as positive or adverse, temporary or permanent, past, present or future, or cumulative. Effects may arise in relation to:

- a. the neighbourhood or the wider community around an activity, and may include cultural and 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' in as much as is appropriate for each activity. Monitoring programmes are not only based on existing permit conditions, but also on the obligations of the RMA to assess the effects of the exercise of consents. In accordance with Section 35 of the RMA, the Council undertakes compliance monitoring for consents and rules in regional plans, and maintains an overview of the performance of resource users and consent holders. Compliance monitoring, including both activity and impact monitoring, enables the Council to continually re-evaluate its approach and that of consent holders to resource 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 consent holders, this report also assigns a rating as to each Company's environmental and administrative performance during the period under review. The rating categories are high, good, improvement required and poor for both environmental and administrative performance. The interpretations for these ratings are found in appendix II.

For reference, in the 2021-2022 year, consent holders were found to achieve a high level of environmental performance and compliance for 88% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 10% of the consents, a good level of environmental performance and compliance was achieved.¹

1.2 Process description

The Company currently operates an existing vermiculture business from the Waitara Road facility. The site also has a processing facility which blends and refines the finished products.

Greenwaste is collected from a number of section maintenance/lawnmower contractors, and then shredded onsite. Some of the greenwaste is composted within the site grounds, while the majority is sent to the other Company site located in Uruti.

Composted material supplied from the Uruti site is applied to worm windrows at an average depth of 150-200 mm, with the worms working the top 100 mm and consuming the applied material over a period of 5 to 7 days. Aeration of the windrows is achieved using a metal arm with long 'teeth' mounted on a tractor. The covered windrows are 3 m wide with a 2 m metalled access track between each windrow. Once the applied material has been converted into vermicast, this is then harvested and packaged for distribution as a fertiliser.

Raw materials used to make the Revital Fertiliser products, including chicken manure, are stored within onsite sheds. Mixing of fertiliser blends is carried out within the large shed, which occurs immediately prior to dispatch of the product. The shed is also used for bagging the products.

The blended compost is loaded out via covered trucks. A loading ramp is situated to the northeast of the large storage shed. A vehicle washdown facility is provided between the storage sheds.

¹ The Council has used these compliance grading criteria for more than 18 years. They align closely with the 4 compliance grades in the MfE Best Practice Guidelines for Compliance, Monitoring and Enforcement, 2018



Figure 1 RNZ Waitara Road Facility map

Stormwater consent

To date, any surface stormwater from the windrows has been directed to open grassed drains along the property boundary. Stormwater from the concrete mixing pad is directed to a sump and holding tank and subsequently pumped back onto the windrows. Stormwater from roofed catchments is directed to holding tanks, also for pumping back onto windrows. Stormwater from the concrete apron in front of the lime, rock and phosphate shed is directed via pipe to an open drain.

Any offsite discharges are via the open drain which runs through the neighbouring property before discharging into an unnamed tributary of the Waiongana Stream, approximately 2.5 km from the subject site.



Figure 2 Consent 5892-2 stormwater flow direction

1.3 Resource consents

The Company holds one resource consent, the details of which are summarised in the table below. Summaries of the conditions attached to the consent are set out in Section 3 of this report.

A summary of the various consent types issued by the Council is included in Appendix I, as are copies of all permits held by the Company during the period under review.

Table 1	Resource	consent	held	by tl	he Compa	ny
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Consent number	Purpose	Granted	Review	Expires					
	Water discharge permits								
5892-2	To discharge stormwater from worm farming operations onto and into land and into an unnamed tributary of the Waiongana Stream	September 2006	-	June 2020 S.124 Protection while application to renew the consent is processed					

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 Company site 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;
- 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 site was visited six times during the monitoring period. With regard to consent for the discharge of stormwater, the main points of interest were plant processes with potential or actual discharges to receiving watercourses, including contaminated stormwater and process wastewaters. The neighbourhood was also surveyed for environmental effects.

1.4.4 Chemical sampling

The Council collected one sample from the stormwater monitoring point, IND005106, at the Waitara Road facility this monitoring period. The sample was assessed against the following parameters:

- Free Ammonia as N
- Turbidity ISO
- pH
- Total Suspended Solids
- Sample Temperature
- Total Potassium
- Total Ammoniacal-N
- Dissolved Reactive Phosphorus
- Dissolved C-Biochemical Oxygen Demand (CBOD₅)
- Escherichia coli
- Organonitro & phosphorus (ONP) Pesticides Screen in MR Water Liq/liq
 - o Propiconazole
 - o Tebuconazole
 - o Terbuthylazine

Please note, in the case of ONP testing, 88 parameters were tested for. None of the compounds were detected above the laboratory defined limit of detection (LOD)².

 $^{^2}$ The limit of detection (LOD) is defined as the lowest concentration of an analyte in a sample that can be consistently detected with a stated probability (typically at 95% certainty).

2 Results

2.1 Water

2.1.1 Inspections

16 July 2021

An inspection was undertaken to assess compliance with Abatement Notice EAC-24106 which had been issued in May 2021 due to significantly elevated contaminants in the stormwater discharge. It was noted that significant site improvements had been undertaken. Two new settling ponds had been constructed at the back of the sheds. These discharge into the adjacent drain, which had been cleaned out and gravelled. The consent holder advised that roof water would discharge directly to the drain at the rear of the property. Concrete blocks had been placed around one of the back sheds to prevent product from spilling out and iron was on order to repair the shed. The front of the site was very clean. A leaf blower had been purchased to clean the hard stand area and it was noted that this was free from debris during the inspection. Broken pipe work had been repaired. No discharge was occurring from the treatment system. All windrows were covered and no odour was detected on site or beyond the boundary of the property at the time of the inspection.

17 August 2021

Very heavy rain had occurred prior to the inspection and the stormwater system was discharging during inspection. The flow was very high and the discharge was dark in colour and turbid. The discharge colour and clarity appeared to have improved since the last non-compliant inspection. The drain was followed, and it was observed that it eventually sheet flowed over neighbouring pasture, and did not discharge directly into the stream. The ground was very saturated due to heavy and consistent rain and multiple other discharges were noted to be occurring into the drain from neighbouring properties, these were also dark and turbid. The receiving waters were slightly turbid both upstream and downstream, likely to recent heavy rain. During the inspection it was noted that there was no retention time in treatment system, and stormwater was quickly flushing through into the neighbouring drain. Staff advised that the ponds would be deepened to remedy this. It was noted that the roof water was no longer entering the treatment system. The stormwater running over the area adjacent to the mulch piles was entraining contaminants and appeared to be the source of the discoloration in the final discharge. The back of the shed which houses the chicken manure has been fixed and no run off was occurring from this shed. The hard stand area at front of the sheds was noted to be cleaner than in previous inspections and did not appear to have a significant impact on the colour of the discharge.

7 December 2021

It was noted that the capacity of treatment pond one had been increased and staff explained that further work was planned to increase the ponds shortly. The hard stand areas along the front of the sheds and down the side of the sheds near the mulch piles needed to be cleaned. There had been heavy rain over the previous 24 hours and the pond system was discharging into the first drain, and the drain lateral was discharging into the drain at the back of the site. The discharge was slightly turbid and slightly coloured. There was a noticeable improvement in the visual quality of the discharge compared with previous inspections. The drain beyond the site was slightly discoloured, however it was noted that this improved downstream. All worm beds were covered. No odours were noted.

1 June 2022

Consistent rain had fallen in the days prior to the inspection and the stormwater system was discharging. The flow was very high and the discharge was dark in colour and turbid. Despite work to deepen the treatment pond, there appeared to be no retention time, with stormwater quickly flushing through into the neighbouring drain. A significant amount of saturated bark was noted adjacent to the bark piles and stormwater was running over this area entraining contaminants and this appeared to be the source of the discoloration in the final discharge. Part of the run off from this area was bypassing the treatment system and tracking towards the swale. All windrows were covered. No odours were noted at the time of inspection.

15 June 2022

The site was clean and tidy at the time of the inspection. Improvements had been made to the area adjacent to the bark piles, to build up the area and direct the stormwater into the treatment system. The broken roof pipe had been replaced to prevent clean water from flooding the treatment system. The discharge from the treatment pond into the lateral drain was turbid brown, however this cleared up significantly within the drain, and the discharge into the neighbouring drain beyond the boundary was considerably improved compared with the previous inspection.

5 April 2022

The site was reasonably clean and tidy. The sediment retention ponds had been converted into one large pond. No recent rain had occurred and no stormwater was discharging off site. The retention pond was almost empty. It was noted that some chicken litter had spilt out from the shed and this needed to be cleaned up. Some leachate from the shed was noted, however this was tracking into the retention pond. All worm beds were covered and all drain bunding was in place. Some jib and untreated timber was noted in the green waste piles. No dust or odours were noted on or beyond the boundary of the site.

2.1.2 Results of the discharge monitoring

In this monitoring period the Council collected one sample from the Company stormwater discharge point, IND005016 (Table 2).

Stormwater discharge 5892-2		Concernt 5002 2	IND005016	
	Date	condition 6	7- Dec-21	
Parameter	Time		11:45	
Free Ammonia as N	g/m³		0.0193	
Turbidity ISO	FNU		60	
рН	pH Units	6.5-8.5	7.2	
Total Suspended Solids	g/m³	100	79	
Sample Temperature	°C		21.8	
Total Potassium	g/m³		112	
Total Ammoniacal-N	g/m³		2.8	
Dissolved Reactive Phosphorus	g/m³		0.21	
Dissolved C-Biochemical Oxygen Demand (CBOD ₅)	g O ₂ /m ³		12.9	
Escherichia coli	MPN / 100mL		>2,420	
Organonitro & phosphorus Pesticides Screen in	MR Water Liq/liq			
	HSNO Environme fre	IND005016		
Propiconazole	g/m³	0.0001	<0.00015	
Tebuconazole	g/m³	0.00024	<0.0002	
Terbuthylazine	g/m³		<0.00010	

Table 2 Stormwater discharge results IND005106 2021-22 monitoring period

Suspended solids and pH complied with consent conditions. The results for all parameters were significantly improved from the previous monitoring period, this is a direct result of work undertaken to improve stormwater management at the site.

2.2 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).

In the 2021-2022 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with the Company's conditions in resource consents or provisions in Regional Plans.

3 Discussion

3.1 Discussion of site performance

As a result of an abatement notice issued during the 2020-2021 period, the Company contracted the consultant Pattle Delamore and Partners (PDP). PDP performed a review of the site stormwater and provided a memorandum to the Company (26 October 2021) containing eight recommendations for improving the stormwater system.

It was noted during the site inspections that the Company implemented these recommendations, including construction of new settling ponds, increased capacity of settling ponds, redirection of roof water, repairs to sheds to prevent loss of product, repair of broken pipework, improved yard maintenance, and redirection of stormwater away from product. As a result stormwater management at the site was much improved during the 2021-2022 period.

3.2 Environmental effects of exercise of consent

Inspections and sampling showed that the discharge from the site had improved significantly both visually and chemically when compared with the 2020-2021 period.

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 4 & 5.

Table 3 Summary of performance for consent 5892-2

Purpose 5892-2.0: To discharge stormwater from the worm farming operations onto and into land and into an unnamed tributary of the Waiongana Stream **Condition requirement** Means of monitoring during period under review **Compliance achieved?** 1. Exercise of consent in accordance with Site inspections Yes information provided in application 2. Best practicable option as Site inspections Yes described by S2 of RMA Mostly – an updated 3. Stormwater management SMP is required Review of records - received 14 November 2016 following improvements plan to the site

4. Records of source, nature and volume of wastes	Liaison with consent holder	Yes
5. No contamination of ground or surface water	Site inspections, sampling (groundwater not assessed during monitoring period	Yes
 Maintenance of stormwater treatment system and concentration limits 	Site inspections, sampling	Yes. Upgrades carried out to improve stormwater treatment
 Post mixing zone stormwater effects 	Inspections, sampling	Yes

an unnamea tributary of the walongana Stream					
Condition requirement	Means of monitoring during period under review	Compliance achieved?			
8. Windrows covered except when discharging	Inspections	Yes			
9. Alterations to processes and operations	Inspections	Yes			
10. Reinstatement of site	Not required currently	Yes			
11. Optional review of consent	Consent has expired, no further provision for review	N/A			
Overall assessment of consent compliance and environmental performance in respect of this consent Good					
Overall administrative compliance with this consentHigh					

Purpose 5892-2.0: To discharge stormwater from the worm farming operations onto and into land and into an unnamed tributary of the Waiongana Stream

Table 4	Evaluation	of	environmental	performance	over	time
	Evaluation		christian	periornance	Over	unite

Year	Consent no	High	Good	Improvement req	Poor
2013-2014	5892-2	1	-	-	-
2014-2015	5892-2	1	-	-	-
2015-2016	5892-2	1	-	-	-
2016-2017	5892-2	1	-	-	-
2018-2019	5892-2	-	-	1	_
2019-2020	5892-2	1	-	-	-
2020-2021	5892-2	-	1	-	-
2021-2022	5892-2	-	1	-	-
Totals		5	2	1	0

During the year, the Company demonstrated a good level of environmental performance and high level of administrative performance with the resource consents as defined in Appendix II.

3.4 Recommendations from the 2020-2021 Annual Report

In the 2020-2021 Annual Report, it was recommended:

- 1. THAT in the first instance, monitoring of consented activities at Waitara Road facility in the 2021-2022 year be amended from that undertaken in 2020-2021, as set out below.
- 2. Additional inspections will be required if compliance is not achieved with the abatement notice in December 2021.
- 3. Organonitro and phosphorus pesticide screen to be added to all stormwater samples.
- 4. Further investigations as to the source of the pesticides detected in the stormwater sample will be undertaken to determine if they are related to the Uruti facility or are being brought in by the green waste accepted and partially composted on site.
- 5. THAT should there be issues with environmental or administrative performance in 2021-2022, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

These recommendations were implemented.

3.5 Alterations to monitoring programmes for 2022-2023

In designing and implementing the monitoring programmes for air/water discharges in the region, the Council has taken into account:

- the extent of information already made available through monitoring or other means to date;
- its relevance under the RMA;
- the Council's obligations to monitor consented activities and their effects under the RMA;
- the record of administrative and environmental performances of the consent holder; and
- reporting to the regional community.

The Council also takes into account the scope of assessments required at the time of renewal of permits, and the need to maintain a sound understanding of industrial processes within Taranaki exercising resource consents.

No planned changes have been made to the 2022-2023 monitoring programme.

It should be noted that the proposed programme represents a reasonable and risk-based level of monitoring for the site in question. The Council reserves the right to subsequently adjust the programme from that initially prepared, should the need arise if potential or actual non-compliance is determined at any time during 2022-2023.

4 Recommendations

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

Glossary of common terms and abbreviations

The following abbreviations and terms may be used within this report:

Bund	A wall around a tank to contain its contents in the case of a leak.
CBOD	Carbonaceous biochemical oxygen demand. A measure of the presence of degradable organic matter, excluding the biological conversion of ammonia to nitrate.
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 millilitre sample.
EEL	Environmental exposure limit means the limit on the concentration of a substance (or any element or compound making up the substance) with ecotoxic properties in an environmental medium as set in accordance with this section or EPA notices.
FNU	Formazin nephelometric units, a measure of the turbidity of water
g/m³	Grams per cubic metre, and equivalent to milligrams per litre (mg/L). In water, this is also equivalent to parts per million (ppm), but the same does not apply to gaseous mixtures.
Incident	An event that is alleged or is found to have occurred that may have actual or potential environmental consequences or may involve non-compliance with a consent or rule in a regional plan. Registration of an incident by the Council does not automatically mean such an outcome had actually occurred.
Intervention	Action/s taken by Council to instruct or direct actions be taken to avoid or reduce the likelihood of an incident occurring.
Investigation	Action taken by Council to establish what were the circumstances/events surrounding an incident including any allegations of an incident.
Incident register	The incident register contains a list of events recorded by the Council on the basis that they may have the potential or actual environmental consequences that may represent a breach of a consent or provision in a Regional Plan.
ISO	ISO refers to its units as formazin nepthelometric units (FNU). It is used to determine the concentration of suspended particles in the sample of water by measuring the incident light scattered at right angles from the sample.
LOD	Limit of detection. The lowest concentration of an analyte in a sample that can be consistently detected with a stated probability (typically at 95% certainty).
L/s	Litres per second.
m ²	Square Metres.
Mixing zone	The zone below a discharge point where the discharge is not fully mixed with the receiving environment. For a stream, conventionally taken as a length equivalent to 7 times the width of the stream at the discharge point.
рН	A numerical system for measuring acidity in solutions, with 7 as neutral. Numbers lower than 7 are increasingly acidic and higher than 7 are increasingly alkaline. The scale is logarithmic i.e. a change of 1 represents a ten-fold change in strength. For example, a pH of 4 is ten times more acidic than a pH of 5.
Physicochemical	Measurement of both physical properties (e.g. temperature, clarity, density) and chemical determinants (e.g. metals and nutrients) to characterise the state of an environment.

Resource consent	Refer Section 87 of the RMA. Resource consents include land use consents (refer Sections 9 and 13 of the RMA), coastal permits (Sections 12, 14 and 15), water permits (Section 14) and discharge permits (Section 15).
RMA	Resource Management Act 1991 and including all subsequent amendments.
Temp	Temperature, measured in °C (degrees Celsius).
Turb	Turbidity, expressed in NTU or FNU.

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

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Appendix I

Resource consents held by RNZ New Zealand Ltd Waitara Road Facility

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

Water abstraction permits

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

Water discharge permits

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

Air discharge permits

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

Discharges of wastes to land

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

Land use permits

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

Coastal permits

Section 12(1)(b) of the RMA stipulates that no person may erect, reconstruct, place, alter, extend, remove, or demolish any structure that is fixed in, on, under, or over any foreshore or seabed, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Coastal permits are issued by the Council under Section 87(c) of the RMA.

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

Name of	Remediation (NZ) Limited
Consent Holder:	P O Box 8045
	NEW PLYMOUTH 4342

Consent Granted 7 September 2006 Date:

Conditions of Consent

- Consent Granted:To discharge stormwater from worm farming operations
onto and into land and into an unnamed tributary of the
Waiongana Stream at or about (NZTM)
1705949E-5679907NExpiry Date:1 June 2020Review Date(s):June 2008, June 2014
- Site Location: 96 Waitara Road, Brixton, Waitara
- Legal Description: Lot 1 DP 19670 Blk III Paritutu SD
- Catchment: Waiongana

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. This consent shall be exercised generally in accordance with the information submitted in support of applications 1559 and 4037. In the case of any contradiction between the documentation submitted in support of applications 1559 and 4037 and the conditions of this consent, the conditions of this consent shall prevail.
- 2. At all times the consent holder shall adopt the best practicable option, as defined in section 2 of the Act, to prevent or minimise any actual or likely adverse effect on the environment associated with worm farming activities and the discharge of stormwater onto and into land.
- 3. Within three months of granting of this consent the consent holder shall prepare and maintain a stormwater management plan to the satisfaction of the Chief Executive, Taranaki Regional Council. This plan shall be updated as required by any significant changes to plant processes.
- 4. The consent holder shall keep and make available to the Chief Executive, Taranaki Regional Council, upon request, records of the nature and volume of all wastes received at the site; such records to be kept for at least 12 months.
- 5. The exercise of this consent shall not result in any contamination of groundwater or surface water, other than as provided for in special condition 6 of this consent.
- 6. The stormwater treatment system shall be maintained to the satisfaction of the Chief Executive, Taranaki Regional Council.

The following concentrations shall not be exceeded within the discharge effluent:

Component	Concentration
pH (range)	6.5-8.5
suspended solids	100 gm ⁻³

This condition shall apply prior to any stormwater prior to leaving the site into the neighbouring drain, at a designated sampling point approved by the Chief Executive, Taranaki Regional Council.

- 7. After allowing for reasonable mixing, with a mixing zone extending seven times the width of the receiving waters downstream of the discharge point, the discharge shall not give rise to any of the following effects in the receiving waters of the unnamed tributary:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the colour or visual clarity;
 - c) any emission or objectionable odour;
 - d) the rendering of fresh water unsuitable for consumption by farm animals;
 - e) any significant adverse effects on aquatic life.
- 8. The consent holder shall ensure that except when discharging, windrows shall be covered at all times.
- 9. Prior to undertaking any alterations to the processes or operations which significantly change the nature or quantity of contaminants emitted from the site, the consent holder shall consult with the Chief Executive, Taranaki Regional Council, and shall obtain any necessary approvals under the Resource Management Act 1991.
- 10. The Chief Executive, Taranaki Regional Council, shall be advised in writing at least 48 hours prior to the reinstatement of the site and the reinstatement shall be carried out so as to minimise effects on stormwater quality, and to meet the criteria of Tables 4.11, 4.14 & 4.20 of the Ministry for the Environment (1999) document 'Guidelines for Assessing & Managing Petroleum Hydrocarbon Contaminated sites in N.Z.'.
- 11. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2008 and/or June 2014, 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 22 September 2008

For and on behalf of Taranaki Regional Council

Appendix II

Categories used to evaluate environmental and administrative performance

Categories used to evaluate environmental and administrative performance

Environmental performance is concerned with <u>actual or likely effects</u> on the receiving environment from the activities during the monitoring year. Administrative performance is concerned with the Company's approach to demonstrating consent compliance in site operations and management including the timely provision of information to Council (such as contingency plans and water take data) in accordance with consent conditions.

Events that were beyond the control of the consent holder <u>and</u> unforeseeable (that is a defence under the provisions of the RMA can be established) may be excluded with regard to the performance rating applied. For example loss of data due to a flood destroying deployed field equipment.

The categories used by the Council for this monitoring period, and their interpretation, are as follows:

Environmental Performance

- **High:** No or inconsequential (short-term duration, less than minor in severity) breaches of consent or regional plan parameters resulting from the activity; no adverse effects of significance noted or likely in the receiving environment. The Council did not record any verified unauthorised incidents involving environmental impacts and was not obliged to issue any abatement notices or infringement notices in relation to such impacts.
- **Good:** Likely or actual adverse effects of activities on the receiving environment were negligible or minor at most. There were some such issues noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party but these items were not critical, and follow-up inspections showed they have been dealt with. These minor issues were resolved positively, co-operatively, and quickly. The Council was not obliged to issue any abatement notices or infringement notices in relation to the minor non-compliant effects; however abatement notices may have been issued to mitigate an identified potential for an environmental effect to occur.

For example:

- High suspended solid values recorded in discharge samples, however the discharge was to land or to receiving waters that were in high flow at the time;
- Strong odour beyond boundary but no residential properties or other recipient nearby.
- Improvement required: Likely or actual adverse effects of activities on the receiving environment were more than minor, but not substantial. There were some issues noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party. Cumulative adverse effects of a persistent minor non-compliant activity could elevate a minor issue to this level. Abatement notices and infringement notices may have been issued in respect of effects.
- **Poor:** Likely or actual adverse effects of activities on the receiving environment were significant. There were some items noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party. Cumulative adverse effects of a persistent moderate non-compliant activity could elevate an 'improvement required' issue to this level. Typically there were grounds for either a prosecution or an infringement notice in respect of effects.

Administrative performance

- **High:** The administrative requirements of the resource consents were met, or any failure to do this had trivial consequences and were addressed promptly and co-operatively.
- **Good:** Perhaps some administrative requirements of the resource consents were not met at a particular time, however this was addressed without repeated interventions from the Council staff. Alternatively

adequate reason was provided for matters such as the no or late provision of information, interpretation of 'best practical option' for avoiding potential effects, etc.

- Improvement required: Repeated interventions to meet the administrative requirements of the resource consents were made by Council staff. These matters took some time to resolve, or remained unresolved at the end of the period under review. The Council may have issued an abatement notice to attain compliance.
- **Poor:** Material failings to meet the administrative requirements of the resource consents. Significant intervention by the Council was required. Typically there were grounds for an infringement notice.