

Westown Haulage Ltd
Cleanfill and Wood Waste
Monitoring Programme
Annual Report
2020-2021

Technical Report 2021-14



Taranaki Regional Council
Private Bag 713
Stratford

ISSN: 1178-1467 (Online)
Document: 2808700 (Word)
Document: 2816819 (Pdf)
August 2021

Westown Haulage Ltd
Cleanfill and Wood Waste
Monitoring Programme
Annual Report
2020-2021

Technical Report 2021-14

Taranaki Regional Council
Private Bag 713
Stratford

ISSN: 1178-1467 (Online)
Document: 2808700 (Word)
Document: 2816819 (Pdf)
August 2021

Executive summary

Westown Haulage Ltd (the Company) operates a cleanfill and wood waste disposal site located on Cowling Road at Hurdon, in the Huatoki catchment. The activity relates to the filling of a gully with cleanfill and sawdust from the Taranaki Pine (previously Taranaki Sawmills) site in Bell Block. This report for the period July 2020 to June 2021 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 to discharge waste to land where contaminants may enter the Mangaotuku Stream. The consent includes a total of 13 conditions setting out the requirements that the Company must satisfy.

During the monitoring period, Westown Haulage Ltd demonstrated an overall high level of environmental performance.

The Council's monitoring programme for the year under review included three inspections, and the collection of two water samples at the Mangaotuku Stream, one discharge sample and one wood waste sample.

The monitoring showed that the cleanfill was having little, if any, effect on the Mangaotuku Stream. There were no unauthorised incidents recording non-compliance in respect of this Company 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 2020-2021 year, consent holders were found to achieve a high level of environmental performance and compliance for 86% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 11% of the consents, a good level of environmental performance and compliance was achieved.

In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance remains at a high level.

This report includes recommendations for the 2021-2022 year.

Table of contents

	Page	
1	Introduction	1
1.1	Compliance monitoring programme reports and the Resource Management Act 1991	1
1.1.1	Introduction	1
1.1.2	Structure of this report	1
1.1.3	The Resource Management Act 1991 and monitoring	1
1.1.4	Evaluation of environmental and administrative performance	2
1.2	Process description	3
1.3	Resource consents	5
1.4	Monitoring programme	5
1.4.1	Introduction	5
1.4.2	Programme liaison and management	5
1.4.3	Site inspections	5
1.4.4	Chemical sampling	6
2	Results	7
2.1	Water	7
2.1.1	Inspections	7
2.1.2	Results of discharged wood waste	7
2.1.3	Results of receiving environment monitoring	7
2.2	Incidents, investigations, and interventions	9
3	Discussion	10
3.1	Discussion of site performance	10
3.2	Environmental effects of exercise of consents	10
3.3	Evaluation of performance	10
3.4	Recommendations from the 2019-2020 Annual Report	11
3.5	Alterations to monitoring programmes for 2021-2022	11
4	Recommendations	13
	Glossary of common terms and abbreviations	14
	Bibliography and references	16
	Appendix I Resource consents held by Westown Haulage Ltd	

List of tables

Table 1	Resource consent summary	5
Table 2	Results of CCAB analysis of wood waste samples	7
Table 3	Location of sampling sites in the Mangaotuku Stream	8
Table 4	Chemical analysis of the Mangaotuku Stream upstream and downstream of the site, 20 May 2021	8
Table 5	Summary of performance for consent 9854-1	10
Table 6	Evaluation of environmental performance over time	11

List of figures

Figure 1	Location plan showing the Westown Haulage Ltd cleanfill and wood waste site on Cowling Road and the surrounding area	4
Figure 2	Location of Westown Haulage sampling sites	8

List of photos

Photo 1	Proposed and consented extent of the fill area	4
Photo 2	Cleanfill and woodwaste site May 2021	6

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 2020 to June 2021 by the Taranaki Regional Council (the Council) on the monitoring programme associated with resource consents held by Westown Haulage Ltd (the Company). The Company operates a cleanfill and wood waste site situated on Cowling Road at Hurdon, New Plymouth, in the Huatoki catchment.

The report includes the results and findings of the monitoring programme implemented by the Council in respect of the consent held by the Company that relate to discharges to land within the Huatoki catchment.

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 and land, and is the forth combined annual report by the Council for the Company.

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 through annual programmes;
- the resource consents held by the Company in the Huatoki 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 2021-2022 monitoring year.

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

1.1.3 The Resource Management Act 1991 and monitoring

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

- a. the neighbourhood or the wider community around an activity, and may include cultural and social-economic effects;
- b. physical effects on the locality, including landscape, amenity and visual effects;
- c. ecosystems, including effects on plants, animals, or habitats, whether aquatic or terrestrial;
- d. natural and physical resources having special significance (for example recreational, cultural, or aesthetic); and

- e. risks to the neighbourhood or environment.

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

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

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

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

Environmental Performance

High: No or inconsequential (short-term duration, less than minor in severity) breaches of consent or regional plan parameters resulting from the activity; no adverse effects of significance noted or likely in the receiving environment. The Council did not record any verified unauthorised incidents involving environmental impacts and was not obliged to issue any abatement notices or infringement notices in relation to such impacts.

Good: Likely or actual adverse effects of activities on the receiving environment were negligible or minor at most. There were some such issues noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party but these items were not critical, and follow-up inspections showed they have been dealt with. These minor issues were resolved positively, co-operatively, and quickly. The Council was not obliged to issue any abatement notices or infringement notices in relation to the minor non-compliant effects; however abatement notices may have been issued to mitigate an identified potential for an environmental effect to occur.

For example:

- High suspended solid values recorded in discharge samples, however the discharge was to land or to receiving waters that were in high flow at the time;
- Strong odour beyond boundary but no residential properties or other recipient nearby.

Improvement required: Likely or actual adverse effects of activities on the receiving environment were more than minor, but not substantial. There were some issues noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party. Cumulative

adverse effects of a persistent minor non-compliant activity could elevate a minor issue to this level. Abatement notices and infringement notices may have been issued in respect of effects.

Poor: Likely or actual adverse effects of activities on the receiving environment were significant. There were some items noted during monitoring, from self-reports, or during investigations of incidents reported to the Council by a third party. Cumulative adverse effects of a persistent moderate non-compliant activity could elevate an 'improvement required' issue to this level. Typically there were grounds for either a prosecution or an infringement notice in respect of effects.

Administrative performance

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

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

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

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

For reference, in the 2020-2021 year, consent holders were found to achieve a high level of environmental performance and compliance for 86% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 11% of the consents, a good level of environmental performance and compliance was achieved.¹

1.2 Process description

The Company operates a cleanfill and wood waste site at 70 Cowling Road, Hurdon, in the Huatoki catchment, which is planned to be up to approximately 0.5 ha in size (Figure 1, Photo 1). The cleanfill and wood waste is being used to fill a deep horse shoe shaped gully on the farm, which is located at the fringe of the New Plymouth urban area. The Mangaotuku Stream runs towards the north across the site, approximately 80 m away from the closest part of the area to be filled.

At the time of the application, the Company stated that the gully would be prepared prior to filling by shaping the gully in a manner that reduces water impoundment, with any residual spring water being drained from under the fill using nova-flow piping. The gully would be filled in stages of no more than 50 m in length that would be contoured and capped with 300 mm of clay and 100 mm of topsoil prior to re-grassing and starting on the next stage. Mitigation measures at the site include requirements for the installation of cut off drains, where required, to prevent stormwater from outside the fill area from running across it, and sediment controls downstream of the discharge area.

The Company receives sawdust from Taranaki Pine (formerly Taranaki Sawmills) only when it cannot be used in their onsite wood fired boilers. During the months of September to February approximately 500 m³ of

¹ The Council has used these compliance grading criteria for more than 17 years. They align closely with the 4 compliance grades in the MfE Best Practice Guidelines for Compliance, Monitoring and Enforcement, 2018

wood waste may be discharged at the site. From March to August the site receives very little sawdust, as the Company sells it for bedding in calf sheds and for wintering pads.



Figure 1 Location plan showing the Westtown Haulage Ltd cleanfill and wood waste site on Cowling Road and the surrounding area

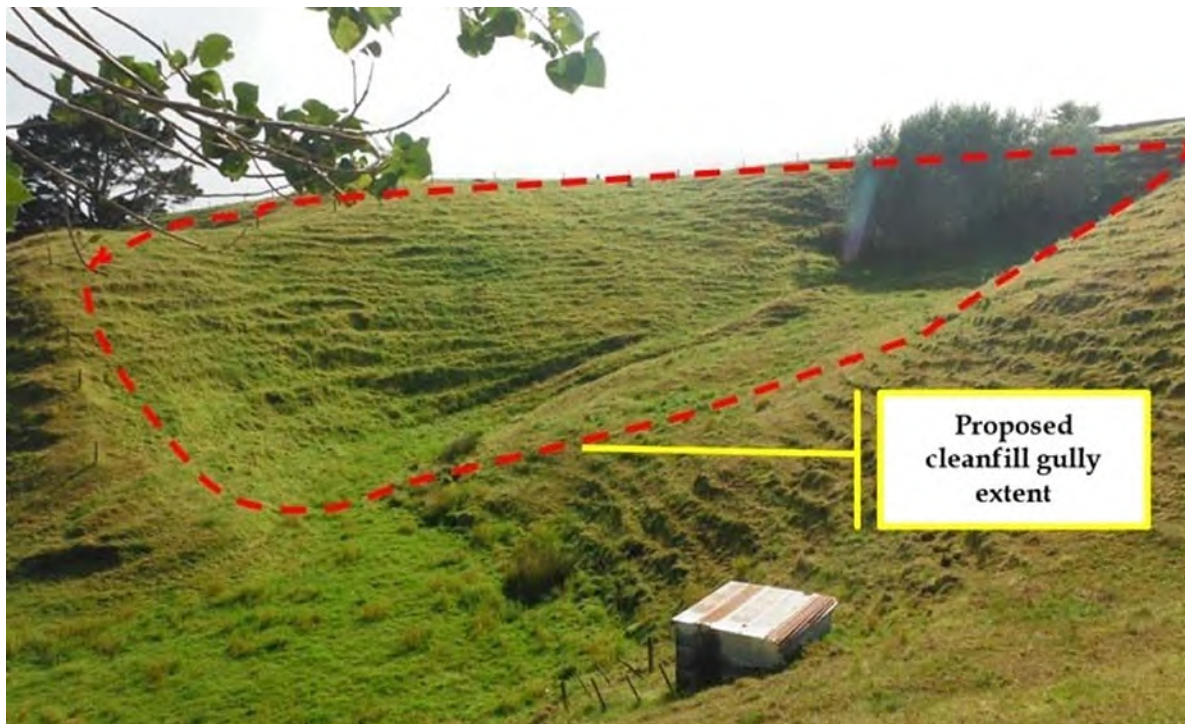


Photo 1 Proposed and consented extent of the fill area

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 permit are set out in Section 3 of this report.

A summary of the various consent types issued by the Council is included in Appendix I, as is a copy of the permit held by the Company during the period under review.

Table 1 Resource consent summary

Consent number	Purpose	Granted	Review	Expires
<i>Discharges of waste to land</i>				
9854-1	To discharge cleanfill and untreated radiata pine sawdust onto and into land, where contaminants may enter into the Mangaotuku Stream	March 2014	June 2026	June 2032

1.4 Monitoring programme

1.4.1 Introduction

Section 35 of the RMA sets obligations upon the Council to gather information, monitor and conduct research on the exercise of resource consents within the Taranaki region. The Council is also required to assess the effects arising from the exercising of these consents and report upon them.

The Council may therefore make and record measurements of physical and chemical parameters, take samples for analysis, carry out surveys and inspections, conduct investigations and seek information from consent holders.

The monitoring programme for the Company's cleanfill and wood waste disposal 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 Company's cleanfill and wood waste site was visited three times during the monitoring period. With regard to the consent for discharge to land where contaminants may enter water, the main points of interest were processes with potential or actual discharges to receiving watercourses, including contaminated stormwater and leachate. The inspections focused on stormwater control, sub-fill drainage, the nature of the fill being disposed of at the site, leachate controls and sedimentation controls. Sources of data being collected by the Company were identified and accessed, so that performance in respect of operation, internal monitoring, and supervision could be reviewed by the Council. The neighbourhood was surveyed for environmental effects.

1.4.4 Chemical sampling

The Council undertook sampling of the water quality in the Mangaotuku Stream upstream and downstream of the discharge point. A sample of the unnamed tributary below the Westtown Haulage Ltd cleanfill was also taken. The samples were analysed for conductivity, ammoniacal nitrogen, pH, temperature and unionised ammonia.

A composite sample of wood waste was collected from in and/or above the fill area. This was analysed for copper, chromium, arsenic and boron (CCAB).



Photo 2 Cleanfill and woodwaste site May 2021

2 Results

2.1 Water

2.1.1 Inspections

16 November 2020

The fill area was coming to the end of fill capacity. No inappropriate material was observed. It was noted that the first of the three silt fences needed to be repaired. Although it was fine during the inspection, it had rained heavily prior to arrival, no issues were noted with regards to stormwater or visually in the receiving water. No dust or odours were noted.

20 May 2021

No activity was occurring on the site during the inspection. There were some piles of soil at the top of the face along with one pile of sawdust. No unauthorised material was observed anywhere on the site. The lower area had been contoured but vegetation was sparse (Photo 2). No dust or odours were noted. A small amount of clear water was flowing through the silt fence at the bottom of the site. Samples were collected further down from the tributary, along with upstream and downstream of the tributary discharge. The tributary was clear in appearance and no visual effects noted downstream of where this entered the Mangaotuku Stream. A composite sample was collected from the sawdust pile.

11 June 2021

The site was visited during fine weather with no recent significant rain. The clean fill was of similar appearance to the previous inspection and no new material was observed. No unauthorised material was observed and no odours were noted. Additional grass growth had occurred on the lower section since the previous visit.

2.1.2 Results of discharged wood waste

Wood waste sampling was undertaken on 20 May 2021. Sub-samples were taken from several areas at random places and at random depths in the piles of wood waste located in and/or above the fill area. These were then composited and analysed for CCAB. The results are given in Table 2.

Table 2 Results of CCAB analysis of wood waste samples

Parameter % m/m dry weight	20 May 2021
Total recoverable arsenic	<0.005
Total recoverable Boron	<0.005
Total recoverable chromium	<0.005
Total recoverable copper	<0.005

The results of the composite sample indicated that it was unlikely that there was CCAB treated wood waste in the fill.

2.1.3 Results of receiving environment monitoring

During the monitoring period samples were collected on one occasion from three sites in the Mangaotuku Stream, as shown in Table 3 and Figure 2. The results are presented in Table 4.

Table 3 Location of sampling sites in the Mangaotuku Stream

Site code	Site	Location
MGK000130	Mangaotuku Stream, upstream	Barrett Domain weir
MGK000134	Unnamed tributary of Mangaotuku	Below Westtown Haulage woodwaste/cleanfill
MGK000136	Mangaotuku Stream, down stream	Southern end of Barrett Domain, off Davies Road



Figure 2 Location of Westtown Haulage sampling sites

The results of the chemical analysis show that there was little, if any, change in water quality in the Mangaotuku Stream between the sampling sites upstream and downstream of the cleanfill.

Table 4 Chemical analysis of the Mangaotuku Stream upstream and downstream of the site, 20 May 2021

Parameters	Units	MGK000130 (u/s of cleanfill)	MGK000134 (below cleanfill at discharge point)	MGK000136 (d/s of cleanfill)	Consent limits
Biochemical oxygen demand*	g/m ³	< 1.0	<1.0	<1.0	less than 2.0 g/m ³ increase downstream
pH	pH	7.0	6.8	7.4	Range 6 - 8
Suspended solids	g/m ³	9	5	9	less than 10% increase downstream
Temperature	°C	14.2	18.2	14.2	-

* dissolved CBOD₅

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 consent holders. 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 2020-2021 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

Operations at the site commenced at the end of the 2016-2017 year. The site has since been found to be well managed, with appropriate management practices in place to comply with the consent and minimise the potential for effects. The site was well maintained, with no substantiated non-compliances found during the year under review.

The site is no longer operational, with the final discharge received at the site in February 2021. Clay has been rolled over the site and piles of mulch and topsoil are waiting at the top of the slope ready to be spread and drilled with grass seed before the site is returned to pasture. This work will be weather depend and is likely to occur in spring 2021.

3.2 Environmental effects of exercise of consents

No adverse effects on the receiving environments were observed at inspection as a result of the cleanfill operation. The routine physicochemical sampling of the Mangaotuku Stream indicated that the cleanfill was having little, if any, effect the downstream receiving water quality.

3.3 Evaluation of performance

A tabular summary of the consent holder's compliance record for the year under review is set out in Table 5.

Table 5 Summary of performance for consent 9854-1

Purpose: To discharge cleanfill and untreated radiata pine sawdust onto and into land, where contaminants may enter into the Mangaotuku Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Prior notice of filling operation commencing	Notification received	Yes
2. Specifies the permitted discharge area	Inspection	Yes
3. Defines acceptable discharge material	Inspection and sampling of wood waste	Yes
4. Defines unacceptable discharge material	Inspection	Yes
5. If the acceptability of a material is uncertain, obtain approval from the Council	Check of Council records and inspection	Yes
6. The consent holder to be the only discharger and Taranaki Pine the only source of material	Inspection	Yes
7. Specifies site preparation, stormwater diversion and subsurface drainage requirements	Inspection	Yes
8. Requires that measures be put in place to minimise effects of activity on water, with certain minimum requirements specified	Inspection	Yes
9. Defines the mixing zone in the Mangaotuku Stream (25 m) and limits effects on specific physicochemical parameters	Receiving water sampling	Yes

Purpose: To discharge cleanfill and untreated radiata pine sawdust onto and into land, where contaminants may enter into the Mangaotuku Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
10. Requires the capping of the fill area upon completion of each stage	Inspection	Yes
11. Requires the consent holder to adopt best practicable option	Inspection	Yes
12. Lapse condition	Consent has been exercised	N/A
13. Review condition	Next review opportunity June 2026	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable

Table 6 Evaluation of environmental performance over time

Year	Consent no	High	Good	Improvement req	Poor
2017-2018	9854-1	1	-	-	-
2018-2019	9854-1	1	-	-	-
2019-2020	9854-1	1	-	-	-
Totals		3	-	-	-

During the year, the Company demonstrated a high level of environmental and high level of administrative performance with their resource consent as defined in Section 1.1.4

3.4 Recommendations from the 2019-2020 Annual Report

In the 2019-2020 Annual Report, it was recommended:

1. THAT in the first instance, monitoring of consented activities at the Westown Haulage Ltd's cleanfill and wood waste discharge site in the 2020-2021 year continue at the same level as in 2019-2020.
2. THAT should there be issues with environmental or administrative performance in 2020-2021, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

Recommendation one was implemented, while it was not considered necessary to carry out additional monitoring as per recommendation two.

3.5 Alterations to monitoring programmes for 2021-2022

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

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

- reporting to the regional community.

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

Planned changes for 2021-2022 monitoring programme include a reduction in inspections from three to two. These will take place around the time that final contouring and capping is completed, and again approximately six months later as a final check before the consent is surrendered. No further water or soil sampling is proposed for the site.

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 2021-2022.

4 Recommendations

1. THAT in the first instance, monitoring of consented activities at the Westown Haulage Ltd's cleanfill and wood waste discharge site in the 2021-2022 year be amended from that undertaken in 2020-2021, by reduced the inspections from three to two and removing sampling from the programme.
2. 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.

Glossary of common terms and abbreviations

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

As*	Arsenic.
BOD	Biochemical oxygen demand. A measure of the presence of degradable organic matter, taking into account the biological conversion of ammonia to nitrate.
BODF	Biochemical oxygen demand of a filtered sample.
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.
Conductivity	Conductivity, an indication of the level of dissolved salts in a sample, usually measured at 25°C and expressed in $\mu\text{S}/\text{cm}$.
Cu*	Copper.
Fresh	Elevated flow in a stream, such as after heavy rainfall.
g/m^3	Grams per cubic metre, and equivalent to milligrams per litre (mg/L). In water, this is also equivalent to parts per million (ppm), but the same does not apply to gaseous mixtures.
Incident	An event that is alleged or is found to have occurred that may have actual or potential environmental consequences or may involve non-compliance with a consent or rule in a regional plan. Registration of an incident by the Council does not automatically mean such an outcome had actually occurred.
Intervention	Action/s taken by Council to instruct or direct actions be taken to avoid or reduce the likelihood of an incident occurring.
Investigation	Action taken by Council to establish what were the circumstances/events surrounding an incident including any allegations of an incident.
Incident register	The incident register contains a list of events recorded by the Council on the basis that they may have the potential or actual environmental consequences that may represent a breach of a consent or provision in a Regional Plan.
L/s	Litres per second.
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.
$\mu\text{S}/\text{cm}$	Microsiemens per centimetre.
pH	A numerical system for measuring acidity in solutions, with 7 as neutral. Numbers lower than 7 are increasingly acidic and higher than 7 are increasingly alkaline. The scale is logarithmic i.e. a change of 1 represents a ten-fold change in strength. For example, a pH of 4 is ten times more acidic than a pH of 5.
Physicochemical	Measurement of both physical properties (e.g. temperature, clarity, density) and chemical determinants (e.g. metals and nutrients) to characterise the state of an environment.
Resource consent	Refer Section 87 of the RMA. Resource consents include land use consents (refer Sections 9 and 13 of the RMA), coastal permits (Sections 12, 14 and 15), water permits (Section 14) and discharge permits (Section 15).

RMA	<i>Resource Management Act 1991</i> and including all subsequent amendments.
SS	Suspended solids.
Temp	Temperature, measured in °C (degrees Celsius).

*an abbreviation for a metal or other analyte may be followed by the letters 'As', to denote the amount of metal recoverable in acidic conditions. This is taken as indicating the total amount of metal that might be solubilised under extreme environmental conditions. The abbreviation may alternatively be followed by the letter 'D', denoting the amount of the metal present in dissolved form rather than in particulate or solid form.

For further information on analytical methods, contact a Science Services Manager.

Bibliography and references

Ministry for the Environment. 2018. Best Practice Guidelines for Compliance, Monitoring and Enforcement under the Resource Management Act 1991. Wellington: Ministry for the Environment.

Taranaki Regional Council (2001): *Regional Freshwater Plan for Taranaki*.

Taranaki Regional Council (2014): *Officer report 9854-1.0*.

Taranaki Regional Council (2018): *Westown Haulage Ltd Cleanfill and Wood Waste Monitoring Programme Annual Report 2017-2018*. Technical Report 2018-97.

Taranaki Regional Council (2019): *Westown Haulage Ltd Cleanfill and Wood Waste Monitoring Programme Annual Report 2018-2019*. Technical Report 2019-13.

Taranaki Regional Council (2020): *Westown Haulage Ltd Cleanfill and Wood Waste Monitoring Programme Annual Report 2019-2020*. Technical Report 2020-83.

Appendix I

Resource consents held by Westown Haulage Ltd

(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
Consent Holder: Westtown Haulage Limited
70 Cowling Road
R D 1
NEW PLYMOUTH 4371

Decision Date: 17 March 2014

Commencement Date: 17 March 2014

Conditions of Consent

Consent Granted: To discharge cleanfill and untreated radiata pine sawdust onto and into land, where contaminants may enter into the Mangaotuku Stream

Expiry Date: 1 June 2032

Review Date(s): June 2015 and/or June 2016 and/or June 2017 and/or June 2020 and/or June 2026

Site Location: 80 Cowling Road, New Plymouth

Legal Description: Pt Ararepe 2 Sbdn 1 (Discharge site)

Grid Reference (NZTM) 1690511E-5672199N

Catchment: Huatoki

Tributary: Mangaotuku

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

General condition

- a. The consent holder shall pay to the Taranaki Regional Council all the administration, monitoring and supervision costs of this consent, fixed in accordance to section 36 of the Resource Management Act 1991.

Special conditions

1. At least 7 working days prior to the commencement of the fill operation, the consent holder shall notify the Taranaki Regional Council of the proposed start date for the work. Notification shall include the consent number and a brief description of the activity consented and shall be emailed to worknotification@trc.govt.nz.
2. The discharge shall only occur in the area shaded on the plan attached.
3. The contaminants to be discharged shall be limited to untreated radiata pine sawdust and cleanfill materials. No treated wood waste or wood products shall be disposed of at the site.

For the purposes of this condition, “cleanfill” are defined as materials consisting of any concrete, cement or cement wastes, bricks, mortar, tiles (clay, ceramic or concrete), non-tanalised timber, porcelain, glass, gravels, boulders, shingles, fibreglass, plastics, sand, soils and clays, and/or tree stumps and roots, whether singly or in combination or mixture, or any other material (subject to condition 4) that when placed onto and into land will not render that land or any vegetation grown on that land toxic to vegetation or animals consuming vegetation.

4. The discharge of the following contaminants shall not occur: food wastes, paper and cardboard, grass clippings, garden wastes including but not limited to wastes containing foliage or other vegetation (other than tree stumps and roots as permitted under condition 3), textiles, steel, galvanised metals, construction materials containing paint or fillers or sealers or their containers, oils or greases or any liquids or sludges or their containers, any industrial process by-products other than as permitted under condition 3, any poisons or solvents or their containers, batteries, general domestic refuse not otherwise described, or any wastes with the potential to render land or any vegetation grown on the land toxic to vegetation or to animals consuming such vegetation.
5. If the consent holder is uncertain as to the acceptability or not of a certain material the consent holder shall seek and obtain confirmation from the Consents Manager, Taranaki Regional Council, prior to its discharge.
6. The consent holder shall be the sole discharger of untreated radiata pine sawdust and the Taranaki Sawmills site at Bell Block shall be the sole source of fill at the site.

Consent 9854-1.0

7. Before discharging any untreated radiata pine sawdust to land, the consent holder shall prepare the area to be filled in manner that minimises the accumulation of water under the fill material. This preparation shall include, but not necessarily be limited to, the following:
 - scraping back and removing top soil from the base of the filled area;
 - shaping gully floor to remove obstructions to sub-fill drainage flow;
 - installation of subsurface drainage measures; and
 - construction of diversion drains around initial fill area.

8. The consent shall take all reasonable and necessary steps to minimise effects of the activity on water, including, but not limited to, the following:
 - installation and maintenance of diversion drains and retention devices to minimise stormwater infiltration into the filled area;
 - installation of sediment settling/ maturation pond to treat discharges to the Mangaotuku Stream; and
 - placing interim cover of 100 mm clay on any exposed fill during periods of inactivity.

9. After allowing for reasonable mixing, within a mixing zone extending 25 metres, the exercise of this consent shall not result in any of the following effects on the Mangaotuku Stream:
 - a rise in filtered carbonaceous oxygen demand of more than 2.0 g/m³;
 - a pH less than 6 or greater than 8;
 - an increase in suspended solids of more than 10%.

10. Upon completion of each stage of the filling operation, the consent holder shall cap the fill area. The fill cap shall:
 - have a minimum layer of compacted clay, at least 300 mm thick and shall be covered with topsoil, no less than 100 mm thick;
 - be contoured to prevent ponding and promote runoff from the fill cap area; and
 - be stabilised and vegetated in a manner that withstands subsidence, erosion or scouring.

11. The consent holder shall at all times adopt the best practicable option or options (as defined in section 2 of the Resource Management Act 1991) to prevent or minimise any actual or potential effect on the environment arising from any discharge at the site.

12. This consent shall lapse on 31 March 2019, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.

Consent 9854-1.0

13. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2015 and/or June 2016 and/or June 2017 and/or June 2020 and/or June 2026, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Signed at Stratford on 17 March 2014

For and on behalf of
Taranaki Regional Council

A D McLay
Director-Resource Management

