

Value Timber Ltd
Monitoring Programme
Annual Report
2019-2020

Technical Report 2020-7

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Executive summary

Value Timber Ltd (the Company) operates an untreated wood waste monofill located on Bristol Road at Inglewood, in the Waitara catchment. The sole source of the wood waste is from the Company's sawmilling operation in Inglewood. The Company sells most of its woodchip and sawdust as calf litter. The remaining material consisting of bark, soil and soiled woodchip/sawdust is sent to the Bristol Road site for disposal. This report for the period July 2019 to June 2020 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 wood waste to land, which includes a total of 14 conditions setting out the requirements that the Company must satisfy.

During the monitoring period, Value Timber Ltd demonstrated an overall high level of environmental performance.

The Council's monitoring programme for the year under review included three inspections, two water samples collected for physicochemical analysis, and one wood waste sample collected for copper, chromium, arsenic, and boron (CCAB) analysis.

The monitoring showed that the site discharges were compliant with consent conditions and that the control of silt from the associated earthworks continued to be managed effectively. The grass cover in the large pre-fill gully was maintained as were the silt controls. There were no discharges of unauthorised wood waste or other materials found at inspection. There were no unauthorised incidents recording non-compliance in respect of this consent holder during the period under review.

During the year, the Company demonstrated a high level of environmental and administrative performance with the resource consent.

For reference, in the 2019-2020 year, consent holders were found to achieve a high level of environmental performance and compliance for 81% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 17% 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 2020-2021 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 2019 to June 2020 by the Taranaki Regional Council (the Council) on the monitoring programme associated with resource consents held by Value Timber Ltd (the Company). The Company operates a wood waste disposal site situated on Bristol Road at Inglewood, in the Waitara 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 relates to discharges to land in the Waitara 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, land and air, and is the twelfth 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 Waitara catchment;
- the nature of the monitoring programme in place for the period under review; and
- a description of the activities and operations conducted in the Company's site/catchment.

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

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

Section 4 presents recommendations to be implemented in the 2020-2021 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' inasmuch as is appropriate for each activity. Monitoring programmes are not only based on existing permit conditions, but also on the obligations of the RMA to assess the effects of the exercise of consents. In accordance with Section 35 of the RMA, the Council undertakes compliance monitoring for consents and rules in regional plans, and maintains an overview of the performance of resource users and consent holders. Compliance monitoring, including both activity and impact monitoring, enables the Council to continually re-evaluate its approach and that of consent holders to resource management and, ultimately, through the refinement of methods and considered responsible resource utilisation, to move closer to achieving sustainable development of the region's resources.

1.1.4 Evaluation of environmental and administrative performance

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

Environmental performance is concerned with 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 2019-2020 year, consent holders were found to achieve a high level of environmental performance and compliance for 81% of the consents monitored through the Taranaki tailored monitoring programmes, while for another 17% of the consents, a good level of environmental performance and compliance was achieved.

1.2 Process description

The Company owns a sawmill located in Inglewood. The untreated sawdust produced from this mill is mostly sold as animal bedding. The remainder of the sawdust, and bark from log peeling, is discharged as fill to the Bristol Road site. The Company uses a small firewood truck to send three to four loads a week to the discharge site.

The site is located between two unnamed tributaries of the Kurapete Stream system. The site where the wood waste is discharged is a gully that directs stormwater and spring water from the surrounding pastureland to the headwater of the unnamed tributary of the Kurapete Stream. The previous owner of the property was in the process of filling the gully when the property was sold to the current owner. The current operation will continue to fill in the gully with untreated woodchip and sawdust to create more flat pasture land. Stormwater run-off from the land surrounding the fill area is intercepted and diverted by two lateral channels on each side of the fill area. Piping is being progressively laid ahead of the fill to allow ground water and spring water to drain away without being in contact with the wood waste. The final cap will

consist of at least 300 mm of compacted clay and 100 mm of topsoil. The capping will be done progressively as the gully is filled.



Figure 1 Aerial image of the Bristol Road site and sampling site



Photo 1 Value Timber Ltd wood waste cap, January 2020

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 each 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 are copies of all permits held by the Company during the period under review.

Table 1 Summary of consents held by the Company during the period under review

Consent number	Purpose	Granted	Review	Expires
<i>Discharges of waste to land</i>				
7338-1	To up to 5 m ³ /day of untreated wood waste onto and into land	29 July 2008	-	1 June 2027

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 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 wood waste disposal site was visited three times during the monitoring period. With regard to consents for the abstraction of or discharge to water, the main points of interest were plant processes with potential or actual discharges to receiving watercourses, including contaminated stormwater and process wastewaters. Air inspections focused on plant processes with associated actual and potential emission sources and characteristics, including potential odour, dust, noxious or offensive emissions. 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 stormwater at the site on two occasions. The samples were analysed for pH, biochemical oxygen demand, ammonia and suspended solids.

A composite sample of the wood waste from the fill area was taken on one occasion and was analysed for copper, chromium, arsenic and boron (CCAB).

2 Results

2.1 Water

2.1.1 Inspections

29 October 2019

The site was inspected in fine weather. At the time of inspection the stockpiled wood waste had been spread over the cap. No slumping or cracking was noticeable on the cap or tip face. The post fill area was tidy and well maintained, with no ponding or stock damage visible.

The stormwater drains were clear and not discharging, with no obstructions of flow. The stormwater ponds were relatively full, with only pond number three discharging. No significant effects were observed downstream.

The silt controls were in place and appeared to be working well. The stream was running clear downstream, with a reduction in the amount of iron oxide present compared to upstream. A surface water sample was collected at this point.

Fencing onsite was permanent and intact, the area surrounding the cap was well grassed. There was a herd of cattle in the cap area at the time of the inspection.

No odour or dust issues were observed, and no unauthorised material was noted onsite.

28 January 2020

The site was inspected in overcast weather with light westerly wind conditions. The fill area had approximately ten small stockpiles of sawdust to be spread, and the area was tidy and well-managed. The tip face appeared stable with no cracking or slumping observed. The pre-fill gully was tidy and well-grassed with no sign of runoff. The post-fill gully was well-grassed and intact, with no slumping or ponding.

The stormwater drains were clear and dry with no sign of recent flow. The stormwater ponds were empty and not discharging. Silt controls were in place downstream, and operating satisfactorily. The stream was flowing at a low, slow flow rate. Abundant oxides and sheen were noted in the stream, as is usual during low flow conditions.

The site was well fenced and secure, with no sign of stock grazing in the gully. There were no odour or dust issues.

Samples of sawdust material were collected and sent to Scion for CCAB analysis. No unauthorised material was noted onsite.

27 May 2020

The site was inspected in fine weather. The fill area had approximately fifteen small stockpiles of sawdust to be spread. The cap area was tidy and well-managed. The tip face appeared stable with no cracking or slumping observed. The pre-fill gully was tidy and well-grassed with no sign of runoff. The post-fill gully was well-grassed and intact, with no slumping or ponding.

The stormwater drains were clear and not discharging, with no obstructions of flow. The stormwater ponds were full with pond number 3 discharging. No significant effects were observed downstream.

The silt controls were in place and appeared to be working well. There was a large amount of iron oxide present in the stream. The water was relatively clear with a sample taken downstream of the cap.

The site was well fenced and secure, with no sign of stock grazing in the gully. There were no odour or dust issues and no unauthorised material was noted onsite.



Photo 2 Value Timber Ltd wood waste cap, 27 May 2020

2.2 Wood waste sample results

Wood waste sampling was undertaken on 28 January 2020. Ten sub-samples were taken from random places and depths in the recently discharged piles of wood waste and the sub-samples were then composited prior to analysis. The composite sample was analysed for CCAB. The results are given in Table 2.

Table 2 Results of CCAB analysis of wood waste sample, 28 January 2020

Parameter	Unit	Result
Total recoverable arsenic	mg/kg dry weight	<0.005
Total recoverable boron	mg/kg dry weight	<0.005
Total recoverable chromium	mg/kg dry weight	<0.005
Total recoverable copper	mg/kg dry weight	<0.005

The results indicated that there was no CCAB treated wood waste in the fill.

2.3 Results of stormwater sampling

Discharges from the site were sampled on two occasions during the 2018-2019 period. The results are given in Table 3.

The samples were taken from site STW002087, which is in the receiving drain downstream of the fill area, just upstream of the property's boundary fence (Figure 1).

Table 3 Results of stormwater samples taken at Value Timber Ltd, Bristol Road site

Parameter	Units	29 October 2019	27 May 2020	Consent Limits
BOD	g/m ³	1.2	0.7	5.0*
Unionised ammonia	g/m ³ -N	0.00058	0.00037	-
Ammoniacal nitrogen	g/m ³ -N	0.85	0.76	-
pH	pH	6.3	6.3	6 - 9*
Suspended solids	g/m ³	7	12	100
Temperature	Deg C	16.7	14.1	-

Key: BOD = biochemical oxygen demand

*consent limit at the boundary

The samples taken during the period under review were compliant with consent conditions.

2.4 Incidents, investigations, and interventions

The monitoring programme for the year was based on what was considered to be an appropriate level of monitoring, review of data, and liaison with the Company. During the year matters may arise which require additional activity by the Council, for example provision of advice and information, or investigation of potential or actual causes of non-compliance or failure to maintain good practices. A pro-active approach, that in the first instance avoids issues occurring, is favoured.

For all significant compliance issues, as well as complaints from the public, the Council maintains a database record. The record includes events where the individual/organisation concerned has itself notified the Council. Details of any investigation and corrective action taken are recorded for non-compliant events.

Complaints may be alleged to be associated with a particular site. If there is potentially an issue of legal liability, the Council must be able to prove by investigation that the identified individual/organisation is indeed the source of the incident (or that the allegation cannot be proven).

In the 2019-2020 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

The site was found to be well managed during the period under review. The tip face showed no signs of cracking or slumping as well as no signs of stock damage during each inspection.

The grass cover in the pre-fill gully was maintained appropriately until clearance was necessary to extend the fill area. The silt controls were in place and working effectively throughout the monitoring period. The site was well fenced and secure.

Sampling of the wood waste indicated that the recent wood wastes disposed of were free of CCAB, and no unauthorised materials were observed at or near the tip face.

Sampling of stormwater discharges from site found no breaches in consent conditions at both occasions through the monitoring period.

The completed fill area was well vegetated and remained stable with no cracking slumping or ponding noted.

3.2 Environmental effects of exercise of consents

From the information gathered via inspections and sampling, it is unlikely the activity was having a significant adverse effect on the environment. Sample results and observations at inspection found that the silt controls at the site were effective and the discharge was compliant with consent conditions.

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 4 Example Summary of performance for consent 7338-1

Purpose: To discharge up to 5 m³/day of untreated wood waste onto and into land		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Only wood waste be discharged at the site	Inspections	Yes
2. Volume of wood waste not to exceed 5 m ³ /day	Not assessed during period under review	N/A
3. No treated wood products to be discharged	Inspection and wood waste sampling	Yes
4. Value Timber Ltd to be only supplier of wood waste	Inspections and liaison with consent holder	Yes
5. No direct discharge of contaminants to waterway	Inspection and water sampling	Yes
6. Drainage pipes to be installed to certain specifications	Previously assessed, no new pipework installed during the period under review	N/A
7. Maintenance of drains	Inspection	Yes
8. No fires to be lit at the site	Inspection	Yes
9. Adopt best practice	Inspection and liaison with consent holder	Yes

Purpose: To discharge up to 5 m ³ /day of untreated wood waste onto and into land		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
10. Completed fill to be capped to certain specifications	Inspection-upon completion	Yes
11. Reinstatement and revegetation of the fill area after completion	Inspection-upon completion	N/A
12. Fill area not to exceed certain limits	Inspection, fill area within limits	Yes
13. Stormwater leaving the fill area to comply with certain parameters	Inspection and sampling	Yes
14. Optional review provision re environmental effects	Next optional review in June 2019, recommendation attached in section 3.6	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 5 Evaluation of environmental performance over time

Year	Consent no	High	Good	Improvement req	Poor
2010-11	7338-1	-	1	-	-
2011-12	7338-1	-	-	1	-
2012-13	7338-1	-	1	-	-
2013-14	7338-1	-	1	-	-
2014-15	7338-1	-	1	-	-
2015-16	7338-1	1	-	-	-
2016-17	7338-1	1	-	-	-
2017-18	7338-1	1	-	-	-
2018-19	7338-1	1	-	-	-
2019-20	7338-1	1	-	-	-
Totals	-	5	4	1	-

During the year, the Company demonstrated a high level of environmental performance and a high level of administrative performance consents as defined in Section 1.1.4.

3.4 Recommendations from the 2018-2019 Annual Report

In the 2018-2019 Annual Report, it was recommended:

1. THAT in the first instance, monitoring of consented activities at Value Timber Ltd's Bristol Road site in the 2019-2020 year continue at the same level as in 2018-2019.

2. THAT should there be issues with environmental or administrative performance in 2019-2020, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

These recommendations were implemented.

3.5 Alterations to monitoring programmes for 2020-2021

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

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

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

It is proposed that for 2020-2021 monitoring year the programme remains unchanged from that of 2019-2020.

It should be noted that the proposed programme represents a reasonable and risk-based level of monitoring for the site(s) in question. The Council reserves the right to subsequently adjust the programme from that initially prepared, should the need arise if potential or actual non-compliance is determined at any time during 2020-2021.

4 Recommendations

1. THAT in the first instance, monitoring of consented activities at Value Timber Ltd's Bristol Road site in the 2020-2021 year continues 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.

Glossary of common terms and abbreviations

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

As*	Arsenic
B*	Boron
BOD	Biochemical oxygen demand. A measure of the presence of degradable organic matter, taking into account the biological conversion of ammonia to nitrate
CCAB	Copper chromium arsenate and boron (wood treatment chemicals)
Conductivity	Conductivity, an indication of the level of dissolved salts in a sample, usually measured at 25°C and expressed in mS/m
Cr	Chromium
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 register	A register containing 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
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
L/s	Litres per second
mS/m	Millisiemens per metre
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
NH ₄	Ammonium, normally expressed in terms of the mass of nitrogen (N)
NH ₃	Unionised ammonia, normally expressed in terms of the mass of nitrogen (N)
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	Resource Management Act 1991 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 (2019): *Value Timber Limited Monitoring Programme Annual Report 2018-2019*. Technical Report 19-76.
- Taranaki Regional Council (2018): *Value Timber Limited Monitoring Programme Annual Report 2017-2018*. Technical Report 18-37.
- Taranaki Regional Council (2017): *Value Timber Limited Monitoring Programme Annual Report 2016-2017*. Technical Report 17-37.
- Taranaki Regional Council (2016): *Value Timber Limited Monitoring Programme Annual Report 2015-2016*. Technical Report 16-75.
- Taranaki Regional Council (2016): *Value Timber Limited Monitoring Programme Annual Report 2014-2015*. Technical Report 15-73.
- Taranaki Regional Council (2015): *Value Timber Limited Monitoring Programme Annual Report 2013-2014*. Technical Report 14-80.
- Taranaki Regional Council (2013): *Value Timber Limited Monitoring Programme Annual Report 2012-2013*. Technical Report 13-38.
- Taranaki Regional Council (2012): *Value Timber Limited Monitoring Programme Annual Report 2011-2012*. Technical Report 12-23.
- Taranaki Regional Council (2011): *Value Timber Limited Monitoring Programme Annual Report 2010-2011*. Technical Report 11-78.
- Taranaki Regional Council (2010): *Value Timber Limited Monitoring Programme Annual Report 2009-2010*. Technical Report 10-39.
- Taranaki Regional Council (2009): *Value Timber Limited Monitoring Programme Annual Report 2008-2009*. Technical Report 09-82.
- Taranaki Regional Council (2009): *Officer Report 7338-1*.

Appendix I

Resource consents held by Value Timber 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: Value Timber Supplies Limited
P O Box 3246
NEW PLYMOUTH

Consent Granted
Date: 29 July 2008

Conditions of Consent

Consent Granted: To discharge up to 5 cubic metres per day of untreated
wood-waste onto and into land at or about (NZTM)
1707820E-5666476N

Expiry Date: 1 June 2027

Review Date(s): June 2010, June 2013, June 2016, June 2019

Site Location: Bristol Road, Inglewood

Legal Description: Sec 15 Moa Dist Blk I Huiroa SD

Catchment: Waitara

Tributary: Manganui
Kurapete

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 exercise of this consent shall be limited to the discharge of wood shavings, sawdust, bark and incidental soil from untreated timber only. The discharge of any other material/contaminants is prohibited.
2. The volume of waste discharged shall not exceed 5 cubic metres per day.
3. Treated wood waste or wood products shall not be discharged to the site.
4. The consent holder shall be the sole discharger of wood waste to the site and the Value Timber Supplies Limited sawmill plant of Inglewood shall be the sole source of the wood waste disposed at the site. No other waste streams or sources are permitted to discharge on the site.
5. The discharge to land shall not result in any contaminant directly entering surface water.
6. Any culverts or pipes installed by the consent holder that channel stormwater or spring water beneath the fill area, shall be completely enclosed in at least 200 mm of compacted clay to prevent leachate and to minimise the possibility of leachate entering the pipe or culvert. No culverts or pipes are permitted to be in direct contact with the wood waste fill material.
7. The consent holder shall maintain stormwater drains, culverts, sediment detention pond, and/or ground contours at the site, in order to minimise stormwater movement across, or ponding on the site to the reasonable satisfaction of the Chief Executive, Taranaki Regional Council.
8. The consent holder shall ensure that fires are not lit at the site, and if a fire does occur at the site that the Chief Executive, Taranaki Regional Council, is informed immediately.

Consent 7338-1

9. Notwithstanding any conditions within this consent, 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.
10. At the completion of each stage the consent holder shall cap the filled area with at least 300 mm of compacted clay and 100 mm of topsoil. Each stage shall be contoured in a manner that minimises ponding and allows stormwater to flow away from the capped area.
11. Upon the completion of all filling operations the entire site shall be reinstated to the reasonable satisfaction of the Chief Executive, Taranaki Regional Council. This includes, but is not limited to, appropriate final contouring and re-vegetation of the site, maintenance of stormwater drains and culverts, and the installation of systems to control and treat any leachate arising from the filled area.
12. That the filling operations shall not extend downstream of a point on or about 1707822E-5666653N (approximately 50 metres before the gully enters the neighbouring property).
13. Any stormwater discharging downstream of the fill area shall meet the following standards.
 - a) biochemical oxygen demand shall not exceed 5.0 g/m³;
 - b) suspended solids shall not exceed 100 g/m³; and
 - c) a pH range of 6.0 to 9.0.
14. 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 2010 and/or June 2013 and/or June 2016 and/or June 2019 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 29 July 2008

For and on behalf of
Taranaki Regional Council

Director-Resource Management

Appendix II

Wood waste analysis results

Veritec
Te Papa Tipu Innovation Park
49 Sala Street
Private Bag 3020
Rotorua, New Zealand

Telephone: +64 7 343 5400
Facsimile: +64 7 348 0952
Email: testing@veritec.co.nz
www.scionresearch.com



ANALYSIS REPORT

12.02.20

Taranaki Regional Council
47 Cloten Rd
Stratford 4332

Attention: Jackson Hurley

Laboratory Reference: LMS 9523

Order No.: PO84675

Date submitted: 29.01.20

Sample Description: 1 x Wood waste Sample

Analysis required: Copper, chromium, arsenic & boron analysis

Lab sample ID	Client ID	Copper (%m/m)	Chromium (%m/m)	Arsenic (%m/m)	Boron (%m/m)
X22497	SOL 000162 28.01.20	<0.005	<0.005	<0.005	<0.005

Method: Analysis - HNO₃ / H₂O₂ microwave assisted digestion, ICPMS

Note: Sample was sieved to remove soils particles before being ground for analysis

Analysts:



Veritec

Disclaimer: All results reported herein are legally privileged and confidential. All results apply to the samples as labelled and received on the date stated. Veritec will not be responsible for any claim or proceedings arising from errors or omissions in or arising from samples, documents or data which have not been prepared by Veritec staff or for any incidental, indirect, special or consequential loss or damage.

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