Value Timber Limited
Monitoring Programme
Annual Report
2014-2015

Technical Report 2015-73

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Executive summary

Value Timber Limited (the Company) operates an untreated wood waste landfill 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 2014 to June 2015 describes the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess the Company's environmental performance during the period under review, and the results and environmental effects of the Company's activities. This is the seventh annual report to be prepared by the Council to cover the Company's discharges and their effects.

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

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.

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

During the year, the Company demonstrated a good level of environmental performance and a high level of administrative performance. During the period under review there were no significant issues. Although minor matters were raised in regard of silt control, sampling confirmed consent compliance at the time of inspection. An incident was recorded when treated wood waste was found at one inspection. There was a small quantity involved and it was removed promptly.

For reference, in the 2014-2015 year, 75% of consent holders in Taranaki monitored through tailored compliance monitoring programmes achieved a high level of environmental performance and compliance with their consents, while another 22% demonstrated a good level of environmental performance and compliance with their consents.

This report includes recommendations for the 2015-2016 year.

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1. Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is the Annual Report for the period July 2014 to June 2015 by the Taranaki Regional Council (the Council) on the monitoring programme associated with resource consent held by Value Timber Limited (the Company). The Company operates a wood waste disposal site situated on Bristol Road at Inglewood, in the Waitara catchment.

This report covers 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 seventh 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 compliance monitoring under the RMA and the Council's obligations and general 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 at the Bristol Road site.

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

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

Section 4 presents recommendations to be implemented in the 2013-2014 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);
(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 consent performance

Besides discussing the various details of the performance and extent of compliance by the consent holder during the period under review, this report also assigns a rating as to the Company's environmental and administrative performance.

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 (i.e. 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 interpretations, are as follows:

Environmental Performance

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

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

  For example:

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

- **Improvement required:** Likely or actual adverse effects of activities on the receiving environment were more than minor, but not substantial. There were some issues noted during monitoring, from self reports, or in response to unauthorised incident reports. Cumulative adverse effects of a persistent minor non-compliant activity could elevate a minor issue to this level. Abatement notices and infringement notices may have been issued in respect of effects.

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

Administrative compliance

- **High:** The administrative requirements of the resource consents were met, or any failures 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 2014-2015 year, 75% of consent holders in Taranaki monitored through tailored compliance monitoring programmes achieved a high level of environmental performance and compliance with their consents, while another 22% demonstrated a good level of environmental performance and compliance with their consents.

1.2 Process description

The Company owns a sawmill located in Inglewood. The untreated sawdust produced from this mill is mostly sold as litter. The remainder of the sawdust, and bark from log peeling, is then 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 under 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.

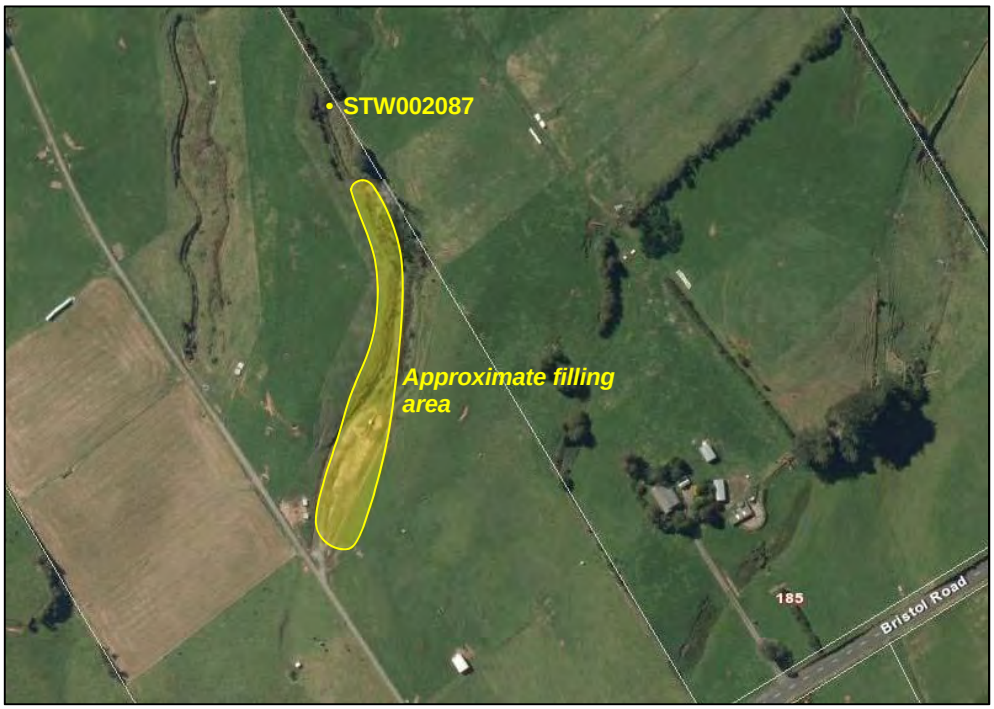

Figure 1 Aerial image of the Bristol Road site and sampling site

1.3 Resource consents

1.3.1 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.

The Company holds discharge permit **7338-1** to cover the discharge of up to 5 m^3/day of untreated wood waste onto and into land. This permit was issued by the Council on 29 July 2008 under Section 87(e) of the RMA. It is due to expire on 1 June 2027.

The consent has 14 special conditions.

Conditions 1 to 4 specify the nature and the source of the wood waste discharged.

Conditions 5 to 8 deal with the mitigation of effects via site management.

Conditions 9 to 12 deal with the boundaries of the fill area, and site reinstatement requirements.

Condition 13 requires that the quality of the stormwater leaving the fill area shall not exceed certain parameters.

Condition 14 is a review condition.

The permit is attached to this report in Appendix I.

1.4 Monitoring programme

1.4.1 Introduction

Section 35 of the RMA sets out obligations upon the Council to gather information, monitor and conduct research on the exercise of resource consents, and the effects arising, within the Taranaki region and report upon these.

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;
- in discussion over monitoring requirements;
- preparation for any reviews;

- renewals;
- new consents;
- advice on the Council's environmental management strategies and content of regional plans and;
- consultation on associated matters.

1.4.3 Site inspections

Although the site is programmed for three inspections per year, due to follow up inspections and an on site meeting, the site was visited six times during the period under review. Inspections focussed on the source and nature of discharged materials, site management and effects on water quality. Sources of data being collected by the Company were identified and accessed if required, so that performance in respect of operation, internal monitoring, and supervision could be reviewed by the Council. The neighbourhood was also surveyed for environmental effects.

1.4.4 Chemical sampling

The Council undertook sampling of stormwater at the site on two occasions. The sample was 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, boron and arsenic.

2. Results

2.1 Inspections

23 July 2014

The site was inspected in fine weather and calm wind conditions. It was found that stage 1 had been completed. The area had been capped and seeded, with the grass starting to establish. The contractor advised that the cap consisted of approximately 1.5 m of compacted clay and 250-300 mm of top soil. The area looked good, being well contoured with no evidence of slumping or ponding. A hole had been chipped into a concrete riser in this area to allow for stormwater drainage. It appeared that some sediment may have been discharging via this hole, and so silt control measures should be installed. Photographs were taken. It was observed that the entire length of piping to be undertaken had been installed and covered with compacted clay making a well prepared basin for the later stages of the fill. There was sediment present in the tributary below the fill site, and it was observed that some sediment had been carried just beyond the site boundary. This was considered to have had only a minor effect at the time of inspection. There were three silt ponds in place, however the first two ponds were almost full of silt, and it appeared that not all of the stormwater from the unstabilised area would flow through the ponds. Additional stabilisation is recommended, for example by grassing areas that won't be filled for a while. The contractor advised that an attempt had been made to grass the area, however the wet soil conditions resulted in the work not being carried out. In the meantime adequate silt control needs to be installed upstream of the site boundary to prevent off site effects. The tributary was running clean and clear at the time of inspection. Photographs and a sample were taken. The tip face was covered with compacted clay so there were no exposed wood shavings present to sample.

The following action was to be undertaken:

- Clean out the sediment ponds.
- Install silt controls at the entry to the concrete riser above the tip face and at the site boundary.

13 August 2014

A follow-up reinspection of the site was undertaken in intermittent showery weather. It was found that silt controls had been installed both at the concrete riser in the paddock above the tip face, and in the tributary below the prepared new fill area. It was considered that the silt fence installed at the riser was effective; however it appeared that flow was able to get under and around the silt fence in the tributary. The Company was advised that this fence needed to be dug in, and widened to go bank to bank, or be moved to just upstream of the track culvert by the site boundary. It was noted that cut-off drains or bunding may be needed on the sides above the new fill area once filling commences to prevent stormwater from the paddocks entering the filled area and saturating the wood waste, which could then generate leachate. This was relayed to the site owner in a phone call immediately following the inspection. Council was advised at this time that the silt ponds had been cleaned out. It was outlined that there was not much sediment that had to be removed following the last inspection, as the first two pits were quite shallow.

The following action was to be undertaken:

- Please improve the silt controls in the tributary, and continue to monitor and maintain all silt control measures.

9 December 2014

The site was visited in overcast conditions to undertake a routine compliance monitoring inspection and take a sample of the wood waste. It was found that the previously filled and stabilised area looked good. There was wood waste present on site that had been discharged over the tip face since the last inspection. Some of the shavings had a greenish tinge. Photographs and samples were taken.

It was noted that the silt controls around the concrete riser above the tip face appeared to have been effective. The three silt ponds all looked good, and it was noted that there was vegetation establishing at the lower end of the prepared fill area, around and below the lower silt pond.

It was found that there was a reasonable amount of silt present in the tributary below the silt pond, and it appeared that scouring was occurring under the silt fence in the tributary. It was recommended that the bottom of this silt fence be anchored to reduce the chance of sediment discharging off site.

Photo 1 Treated wood waste in recently discharged load

22 December 2014

An onsite meeting was held with the Company to discuss the results of the wood waste sample results and identify the actions required. The results received earlier that day showed that the wood waste sample collected on 9 December 2014 (sample number TRC1412238) contained treated timber. A copy of the result was provided to the Company. Council staff outlined that the consent permits the discharge of untreated wood waste only.

The area in which the treated shavings were located was viewed with the Company. The inspecting officer was informed that staff at the mill site had placed cleanings from the planar area in the incorrect bin, resulting in them coming to this site, rather than being disposed of via the normal channels for the CCA treated wood waste. The

Company agreed to remove as much of the treated shavings as practicable, and it was agreed that this was to be done by 10 January 2015. A re-inspection would be undertaken after this date, and the Company was advised that an abatement notice may be issued if the works had not been completed.

The Company was also informed that a letter would be sent requesting an explanation, and that they would need to included details of the quantity of treated material and/or duration this material had been discharged at the site, and the steps undertaken to prevent a re-occurrence.

The following action was to be undertaken:

- Remove the treated timber.

20 January 2015

An inspection was undertaken to ensure that the prohibited material had been removed. It was found that the site looked good at the time of inspection, with no ponding, odour or dust issues. It was also found that the prohibited material had been removed as requested.

17 June 2015

The site was inspected in fine and sunny conditions. The landowner met up with the inspecting officers at the site, but did not join Council staff for the inspection. It was found that reasonable progress had been made with regard to the length of the filled area since the last inspection on 22 December 2014. There was no visible evidence of treated timber or other unacceptable wastes present. The pre-fill area had re-grassed reasonably well, and as a result, there was a lot less exposed soil present. The two silt ponds treating surface water flow were not discharging. The tributary was flowing clear over heavy iron oxide deposits, and a sample was collected. The Company was advised that the silt fence above the boundary should ideally be extended bank to bank, and be dug into the creek bed. However, it was also noted that with the current improved vegetative cover up gradient, and treatment ponds in a satisfactory condition, there did not appear to be a significant increase in sedimentation in the channel upstream of the site boundary at the time of inspection.

Photo 2 Silt ponds and vegetative cover establishing at lower end of stage 2 basin

2.2 Wood waste sample results

Wood waste sampling was undertaken on 9 December 2014. 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 copper, chromium, arsenic and boron (CCAB). The results are given in Table 1.

Table 1 Results of CCAB analysis of wood waste sample, 9 December 2014

Parameter	Unit	Result
Total recoverable arsenic	mg/kg dry weight	3,200
Total recoverable boron	mg/kg dry weight	< 40
Total recoverable chromium	mg/kg dry weight	3,900
Total recoverable copper	mg/kg dry weight	2,100

The results showed that there was CCA treated wood waste in the fill, and this was logged on Council's incidents register. An onsite meeting was held, and the Company was instructed to remove the material. A follow up inspection confirmed that this had been done.

2.3 Results of stormwater sampling

Discharges from the site were sampled on two occasions during the 2014-2015 period. The results are given below in Table 2.

The samples were taken from site STW002087, which is in the receiving drain downstream of the fill area, just upstream of the boundary fence.

Table 2 Results of stormwater samples taken at Value Timber, Bristol Road site

Parameter	Units	23 Jul 2014	17 Jun 2015	Consent Limits
BOD	g/m^3	0.7	2.2	5.0*
Unionised ammonia	g/m^3	0.00035	0.0002	-
Ammoniacal nitrogen	g/m^3	0.349	0.318	_
pH	pH	6.5	6.3	6-9*
Suspended solids	g/m^3	60	5	100
Temperature	Deg C	14.4	14.5	-

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 Investigations, interventions and incidents

The monitoring programme for the year was based on what was considered to be an appropriate level of monitoring, review of data, and liaison with the consent holder. 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

courses of non-compliance or failure to maintain good practices. A pro-active approach that in the first instance avoids issues occurring is favoured.

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

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

In the 2014-2015 period, the Council was required to undertake additional investigations and interventions, and record an incident in association with the Company's conditions in its resource consent.

An incident was recorded after sample results for a wood waste sample collected on 9 December 2014 confirmed that some treated wood waste had been discharged at the site, in contravention of resource consent conditions. A follow up inspection confirmed that this had been removed promptly, and a letter of explanation was received and accepted.

3. Discussion

3.1 Discussion of site performance

The site was found to be organised and tidy, and there were no significant issues in regards to the management of the site. Although a number of issues related to silt and sediment control were found, the Company acted on these matters, and water sampling showed that any effects were minor, at most.

One sample of the wood waste indicated that treated wood waste had been discharged at the site. Following an on site meeting to identify the extent of the area of fill affected, the material was removed promptly.

3.2 Environmental effects of exercise of consents

From the information gathered via inspections and sampling, it is unlikely this activity is having a significant adverse effect on the environment. The accidental discharge of treated wood waste to the site was removed promptly and, as this had only been present for a very short period of time in the summer, therefore there are no, environmental effects anticipated.

3.3 Evaluation of performance

A tabular summary of the Company's compliance record for the year under review is set out in Table 3.

Table 3 Summary of performance for consent 7338-1

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?
1. Only wood waste be discharged at the site	Inspections	Yes
2. Volume of wood waste not to exceed 5 m^3/day	Inspections and liaison with consent holder	Not assessed
3. No treated wood products to be discharged	Inspection and wood waste sampling	No. Treated timber found at 1 inspection, removed promptly
4. Value Timber 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	Inspection	Yes
7. Maintenance of drains	Inspection	Yes
8. No fires to be lit at the site	Inspection	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?
9. Adopt best practice	Inspection and liaison with consent holder	Yes
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	N/A
13. Stormwater leaving the fill area to comply with certain parameters	Inspection and sampling	Yes
14. Option review provision	June 2016 review not considered necessary (see Section 3.6)	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		Good
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable

During the year, the Company demonstrated a good level of environmental performance and a high level of administrative performance. During the period under review there were no significant issues. Although minor matters were raised in regard of silt control, sampling confirmed consent compliance at the time of inspection. Treated wood waste found at one inspection was a small quantity and was removed promptly.

3.4 Recommendation from the 2013-2014 Annual Report

In the 2013-2014 Annual Report, it was recommended:

THAT monitoring of discharges at Value Timber Limited's Bristol Road site in the 2014-2015 year continue at the same level as in 2013-2014.

This recommendation was implemented.

3.5 Alterations to monitoring programmes for 2015-2016

In designing and implementing the monitoring programmes for air and water discharges in the region, the Council has taken into account the extent of information made available by previous authorities, its relevance under the RMA, its obligations to monitor emissions and discharges and their effects under the RMA, and report 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 emitting to the atmosphere and discharging to the environment.

It is proposed that for 2015-2016, the programme remains unchanged.

3.6 Exercise of optional review of consent

Resource consent 7338-1 provides for an optional review of the consent in June 2016. Condition 14 allows the Council to review the consent, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising form the exercise of the consent.

Based on the results of monitoring in the year under review, and in previous years as set out in earlier annual compliance monitoring reports, it is considered that there are no grounds that require a review to be pursued.

4. Recommendations

1. THAT monitoring of discharges at Value Timber Limited's Bristol Road site in the 2015-2016 year continue at the same level as in 2014-2015.

2. THAT the option for a review of resource consent 7338-1 in June 2016, as set out in condition 14 of the consent, not be exercised, on the grounds that the current conditions are adequate to deal with any potential adverse effects.

Glossary of common terms and abbreviations

The following abbreviations and terms may have been 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)
Condy	Conductivity, an indication of the level of dissolved salts in a sample, usually measured at 20°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
IR	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
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 the Council's laboratory.

Bibliography and references

Taranaki Regional Council (2009): *Officer Report 7338-1*

Taranaki Regional Council (2009): *Value Timber Limited Monitoring Programme Annual Report 2008-2009*. Technical Report 09-82

Taranaki Regional Council (2010): *Value Timber Limited Monitoring Programme Annual Report 2009-2010*. Technical Report 10-39

Taranaki Regional Council (2011): *Value Timber Limited Monitoring Programme Annual Report 2010-2011*. Technical Report 11-78

Taranaki Regional Council (2012): *Value Timber Limited Monitoring Programme Annual Report 2011-2012*. Technical Report 12-23

Taranaki Regional Council (2013): *Value Timber Limited Monitoring Programme Annual Report 2012-2013*. Technical Report 13-38

Taranaki Regional Council (2015): *Value Timber Limited Monitoring Programme Annual Report 2013-2014*. Technical Report 14-80

Appendix I

Resource consents held by Value Timber

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

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

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.

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/m^3;
    b) suspended solids shall not exceed 100 g/m^3; 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

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Director-Resource Management

Appendix II

Copper chromium arsenic boron results

Hill Laboratories
BETTER TESTING BETTER RESULTS

R J Hill Laboratories Limited
1 Clyde Street
Private Bag 3205
Hamilton 3240, New Zealand

Tel +64 7 858 2000
Fax +64 7 858 2001
Email mail@hill-labs.co.nz
Web www.hill-labs.co.nz

ANALYSIS REPORT

Client:	Taranaki Regional Council	**Lab No:**	1363709	SPv1
Contact:	L Smith	**Date Registered:**	12-Dec-2014	
	C/- Taranaki Regional Council	**Date Reported:**	22-Dec-2014	
	Private Bag 713	**Quote No:**	41556	
	STRATFORD 4352	**Order No:**	48502	
		Client Reference:		
		Submitted By:	Scott Cowperthwaite	

Sample Type: Miscellaneous

Sample Name:		SOL000162 09-Dec-2014 12:55 pm				
Lab Number:		1363709.1				
CCAB, screen level						
Total Recoverable Arsenic	mg/kg dry wt	3,200	-	-	-	-
Total Recoverable Boron	mg/kg dry wt	< 40	-	-	-	-
Total Recoverable Chromium	mg/kg dry wt	3,900	-	-	-	-
Total Recoverable Copper	mg/kg dry wt	2,100	-	-	-	-

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Miscellaneous

Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1
CCAB, screen level	Total recoverable digestion, ICP-MS. screen level	2 - 20 mg/kg dry wt	1
Total Recoverable digestion*	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

Ara Heron BSc (Tech)
Client Services Manager - Environmental Division