Value Timber Limited
Monitoring Programme
Annual Report
2012-2013

Technical Report 2013-38

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November 2013

Executive summary

Value Timber Limited 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 Value Timber's sawmilling operation in Inglewood. Value Timber 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 Rd site for disposal.

This report for the period July 2012-June 2013 describes the monitoring programme implemented by the Taranaki Regional 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 fifth annual report to be prepared by the Taranaki Regional Council to cover the Company's discharges and their effects.

The Company holds one resource consent to discharge woodwaste 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 inspections, two water samples collected for physicochemical analysis and two wood waste samples collected for CCA (copper-chromium-arsenic) analysis.

During the year the Company demonstrated a good level of environmental performance and compliance with the resource consent. No incidents were logged and no complaints were received.

For reference, in the 2012-2013 year, 35% 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 59% demonstrated a good level of environmental performance and compliance with their consents.

This report includes recommendations for the 2013-2014 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 2012-June 2013 by the Taranaki Regional Council describing the monitoring programme associated with resource consent held by Value Timber Limited. The Company operates an untreated wood waste landfill situated on Bristol Road at Inglewood.

One of the intents of the Resource Management Act (1991) 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 Taranaki Regional Council generally implements integrated environmental monitoring programmes and reports the results of the programmes jointly. This report discusses the environmental effects of Value Timber's use of water, land, and air, and is the fifth report by the Taranaki Regional Council for the landfill managed by the consent holder

1.1.2 Structure of this report

Section 1 of this report is a background section. It sets out general information about compliance monitoring under the Resource Management Act and the Council's obligations and general approach to monitoring sites through annual programmes, the resource consents held by Value Timber 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 Rd 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 Resource Management Act primarily addresses environmental `effects' which are defined as positive or adverse, temporary or permanent, past, present or future, or cumulative. Effects may arise in relation to:

(a) the neighbourhood or the wider community around a discharger, and may include cultural and socio-economic effects;
(b) physical effects on the locality, including landscape, amenity and visual effects;

(c) ecosystems, including effects on plants, animals, or habitats, whether aquatic or terrestrial;
(d) natural and physical resources having special significance (e.g. recreational, cultural, or aesthetic);
(e) risks to the neighbourhood or environment.

In drafting and reviewing conditions on discharge permits, and in implementing monitoring programmes, the Taranaki Regional Council is recognising the comprehensive meaning of `effects' inasmuch as is appropriate for each discharge source. Monitoring programmes are not only based on existing permit conditions, but also on the obligations of the Resource Management Act to assess the effects of the exercise of consents. In accordance with section 35 of the Resource Management Act 1991, the Council undertakes compliance monitoring for consents and rules in regional plans; and maintains an overview of performance of resource users against regional plans and consents. Compliance monitoring, (covering both activity and impact) monitoring, also enables the Council to continuously assess its own performance in resource management as well as that of resource users particularly consent holders. It further enables the Council to continually re-evaluate its approach and that of consent holders to resource management, and, ultimately, through the refinement of methods, and considered responsible resource utilisation to move closer to achieving sustainable development of the region's resources.

1.1.4 Evaluation of environmental performance

Besides discussing the various details of the performance and extent of compliance by the Value Timber during the period under review, this report also assigns an overall rating. The categories used by the Council, and their interpretation, are as follows:

Besides discussing the various details of the performance and extent of compliance by the Company/companies in the catchment during the period under review, this report also assigns an overall rating. The categories used by the Council, and their interpretation, are as follows:

- a **high** level of environmental performance and compliance indicates that essentially there were no adverse environmental effects to be concerned about, and no, or inconsequential (such as data supplied after a deadline) non-compliance with conditions.

- a **good** level of environmental performance and compliance indicates that adverse environmental effects of activities during the monitoring period were negligible or minor at most, or, the Council did not record any verified unauthorised incidents involving significant environmental impacts and was not obliged to issue any abatement notices or infringement notices, or, there were perhaps some items noted on inspection notices for attention but these items were not urgent nor critical, and follow-up inspections showed they have been dealt with, and any inconsequential non compliances with conditions were resolved positively, co-operatively, and quickly.

- **improvement desirable (environmental)** or **improvement desirable (compliance)** (as appropriate) indicates that the Council may have been obliged to record a verified unauthorised incident involving measurable environmental impacts,

and/or, there were measurable environmental effects arising from activities and intervention by Council staff was required and there were matters that required urgent intervention, took some time to resolve, or remained unresolved at end of the period under review, and/or, there were on-going issues around meeting resource consent conditions even in the absence of environmental effects. Abatement notices may have been issued.

- **poor performance (environmental)** or **poor performance (compliance)** indicates generally that the Council was obliged to record a verified unauthorised incident involving significant environmental impacts, or there were material failings to comply with resource consent conditions that required significant intervention by the Council even in the absence of environmental effects. Typically there were grounds for either a prosecution or an infringement notice.

For reference, in the 2012-2013 year, 35% 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 59% demonstrated a good level of environmental performance and compliance with their consents.

1.2 Process description

The consent holder 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 Rd site. The consent holder uses a small firewood truck to send three to four loads a week to the discharge site.

The site sits 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/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. Culverts will be 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 300 mm of compacted clay and 100 mm of topsoil and the capping will be done progressively as the gully is filled.

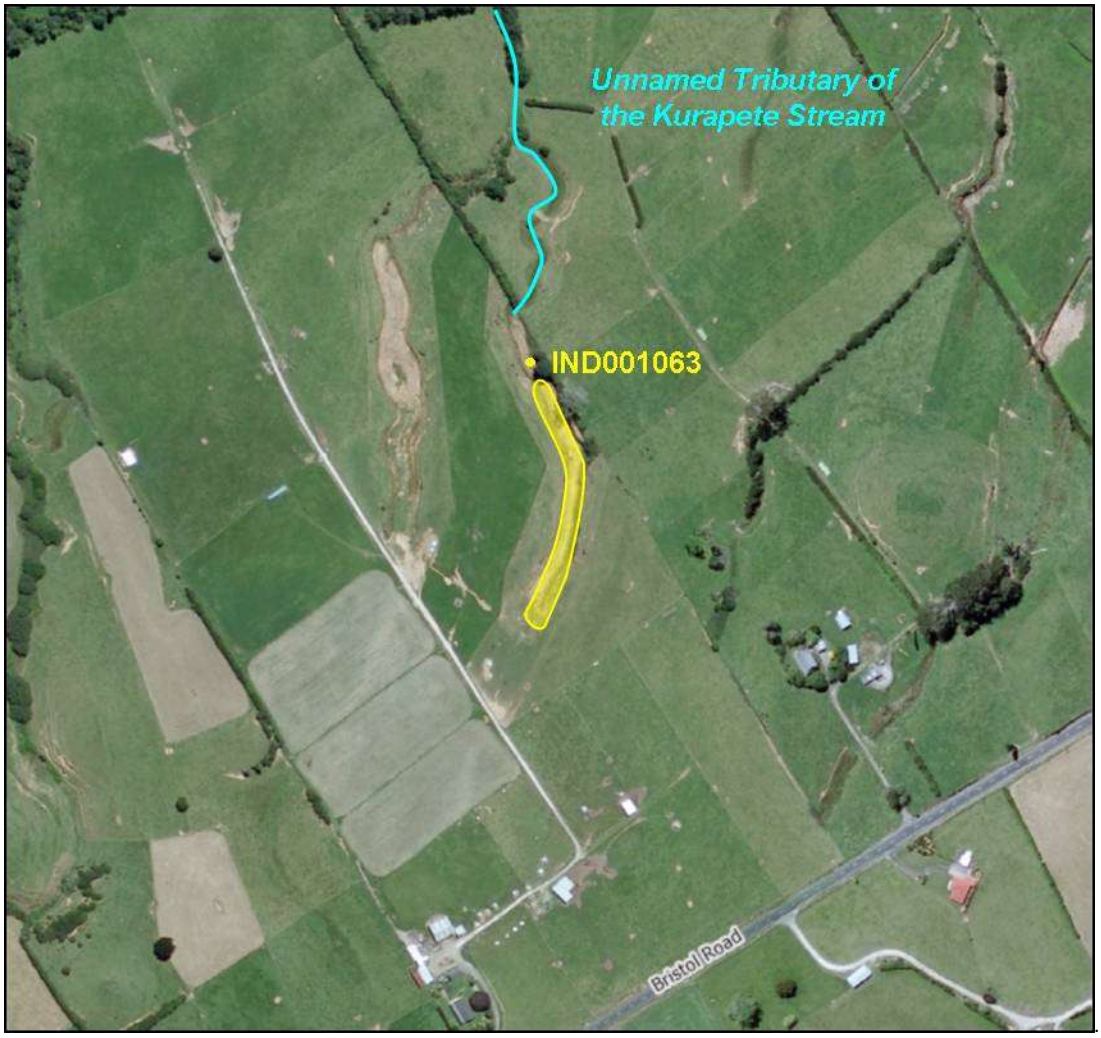

Figure 1 Aerial image of the Bristol Rd site and sampling site

1.3 Resource consent

1.3.1 Discharges of wastes to land

Sections 15(1)(b) and (d) of the Resource Management Act 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.

Value Timber Ltd holds discharge permit **7338-1** to cover the discharge of up to 5 cubic metres per day of untreated wood-waste onto and into land. This permit was issued by the Taranaki Regional Council on 29 July 2008 under Section 87(e) of the Resource Management Act. 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 discharge wood waste.

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, and 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 Resource Management Act sets out obligation/s upon the Taranaki Regional Council to gather information, monitor, and conduct research on the exercise of resource consents, and the effects arising, within the Taranaki region and report upon these.

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

The monitoring programme for the Bristol Rd 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 Taranaki Regional Council in ongoing liaison with resource consent holders over consent conditions and their interpretation and application, in discussion over monitoring requirements, preparation for any reviews, renewals, or new consents, advice on the Council's environmental management strategies and the content of regional plans, and consultation on associated matters.

1.4.3 Site inspections

The site was visited on three occasions during the monitoring period. With regard to the consent for the discharge to land, the main points of interest were site processes with potential or actual discharges to receiving watercourses. The neighbourhood was also surveyed for environmental effects.

1.4.4 Chemical sampling

The Taranaki Regional Council undertook sampling of stormwater at the site on one occasion. The sample was analysed for pH, biochemical oxygen demand, ammonia and suspended solids. A composite sample of the woodwaste from the fill area was taken on two occasions and analysed for copper, chromium and arsenic.

2. Results

2.1 Inspections

The site was inspected on three occasions in 2012-2013 period. The findings of the inspections are given below.

2.1.1 7 September 2012

The site appeared clean, tidy and well maintained and all the drains and silt traps were clear and free of debris. The discharged woodwaste was clean and no unacceptable materials were found on site. A sample of woodwaste from the tip face was taken. There was flow in both receiving drains and a sample was taken at the confluence. The sample was clean and clear and had no odour.

2.1.2 3 October 2012

A site visit was made to take a follow up sample and hold a site meeting with the site operator. The reinstatement of stage one and its final contour were discussed. It was agreed that the consent holder would keep Council informed of the final plans for reinstatement prior to commencing any works.

The sawdust sample taken on 7 September 2012 had a slightly elevated level of CCA and this was discussed. The site was inspected and no evidence of treated woodwaste or other unacceptable materials at the site was found. The site operator stated that it would be very unlikely that treated woodwaste would get mixed in with the untreated loads. It was agreed that another larger sample was be taken to taken to see if the result could be repeated.

2.1.3 7 February 2013

The site appeared clean, tidy and well maintained. All drains and silt traps were in good order and appeared to be functioning well. No unacceptable wastes were noted to be present at the site. The site appeared to have functioned well in the recent heavy rain. Consent conditions were being complied with.

2.2 Wood waste sample results

Woodwaste sampling was undertaken on 7 September 2012. Six sub-samples were taken from random places and depths in the fill area and then composited. The composite sample was analysed for copper, chromium, arsenic and boron. The results are given in Table 1 below.

Table 1 Results of CCA analysis of wood waste sample, 7 September 2012

Parameter	Unit	Result
Total copper	mg/kg	66
Total chromium	mg/kg	114
Total arsenic	mg/kg	56
Boron	mg/kg	<20

Table 2 Results of CCA analysis of wood waste sample, 3 October 2012

Parameter	Unit	Result
Total copper	mg/kg	26
Total chromium	mg/kg	27
Total arsenic	mg/kg	14
Boron	mg/kg	<20

The results show slight elevated level of CCA in the sampled woodwaste indicating that potentially some treated wood waste was present at the site. A second larger sample was taken on 3October 2012 and the results (given in Table 2) were lower and comparable to other samples taken in the past.

To put this into context, treated timber of any standard would be expected to have a CCA salts content of greater than 1000 mg/kg. The level of CCA found in the first sample was well below what would be expected in treated timber and but higher than background levels suggesting low level contamination. The second sample showed much lower levels and these were comparable to those found at the site previously. The cause of the elevated levels in the first sample remains unknown and continued sampling is recommended.

2.3 Results of stormwater sampling

Discharges from the site were sampled on one occasion during the 2012-2013 period. The results are given below in Table 3.

The sample was taken from site IND001063 which is just below the confluence of the receiving drains downstream of the fill area.

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

Parameter	Units	07 Sep 2012	Consent Limits
BOD	g/m3	0.9	5.0**
Unionised ammonia	g/m3	0.0025	-
Ammoniacal nitrogen	g/m3	0.266	_
pH	pH	7.5	6-9**
Suspended solids	g/m3	<2	_
Temperature	Deg C	13.7	-

Key:
BOD = biochemical oxygen demand
** consent limit at boundary

The sample taken on 7 September 2012 was in compliance 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 eg

provision of advice and information, or investigation of potential or actual causes of non-compliance or failure to maintain good practices. A pro-active approach that in the first instance avoids issues occurring is favoured.

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

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

In the 2012-2013 year, it was not necessary for the Council to undertake significant additional investigations and interventions, or record any incident.

There was one sample where CCA levels were slightly elevated, but levels were so intrinsically low that Council deemed it not necessary to log an incident.

3. Discussion

3.1 Discussion of site performance

There were no issues in regards to the management of the site. All silt retention structures and drains were maintained and the site appeared organised and tidy. One sample of the woodwaste indicated that there may be minor contamination of the woodwaste with treated wood waste, but this could not be verified. It is recommended however that if CCA testing shows elevated levels again that Council directs the consent holder to audit their waste handling procedures

3.2 Environmental effects of exercise of consent

From the information gathered via inspections and sampling, it is unlikely this activity is having a significant adverse effect on the environment.

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 4.

Table 4 Summary of performance for Consent 7338-1 to discharge up to 5 cubic metres per day of untreated wood-waste onto and into land

Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Only woodwaste be discharged at the site	Programme management and inspections	Yes
2. Volume of woodwaste not to exceed 5 cubic metres per day	Programme management and inspections	Not assessed
3. No treated wood products to be discharged	Inspection and wood waste sampling	Possible contamination detected in one sampling
4. Value Timber to be only supplier of woodwaste	Programme management and inspections	Yes
5. No contaminants to enter 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
9. Adopt best practice	Programme management and inspections	Yes
10. Completed fill to be capped to certain specifications	Inspection-upon completion	N/A

Condition requirement	Means of monitoring during period under review	Compliance achieved?
11. Reinstatement and re vegetation of the fill are after completion	Inspection-upon completion	N/A
12. Fill area not to exceed certain limits	Inspection-upon completion	N/A
13. Stormwater leaving the fill area to comply with certain parameters	Inspection and sampling	Yes
14. Option review provision	A review was not necessary	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		**Good**

N/A = not applicable

During the year, the Company demonstrated a good level of environmental performance and compliance with the resource consent. During the period under review there were no significant issues, however a small amount of CCA contamination was found in one woodwaste sample.

3.4 Recommendation from the 2011-2012 Annual Report

The 2011-2012 Annual Report recommended:

THAT monitoring of discharges at Value Timber Limited's Bristol Rd site in the 2012-2013 year continue at the same level as in 2011-2012.

This recommendation was fully implemented.

3.5 Alterations to monitoring programmes for 2013-2014

In designing and implementing the monitoring programmes for air/water discharges in the region, the Taranaki Regional Council has taken into account the extent of information made available by previous authorities, its relevance under the Resource Management Act, the obligations of the Act in terms of monitoring emissions/discharges and effects, and subsequently reporting to the regional community, the scope of assessments required at the time of renewal of permits, and the need to maintain a sound understanding of industrial processes within Taranaki emitting to the atmosphere/discharging to the environment.

It is proposed that for 2013-2014, that monitoring continue at the same level as it did in the 2012-2013 period. A recommendation to this effect is attached to this report.

4. Recommendation

THAT monitoring of discharges at Value Timber Limited's Bristol Rd site in the 2013-2014 year continue at the same level as in 2012-2013.

Glossary of common terms and abbreviations

The following abbreviations and terms that may have been used within this report:

Al*	aluminium
As*	arsenic
Biomonitoring	assessing the health of the environment using aquatic organisms
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
CBODF	CBOD of dissolved carbonaceous nutrients
CCA	Copper, chromium and arsenic
cfu	colony forming units. A measure of the concentration of bacteria usually expressed as per 100 millilitre sample
COD	chemical oxygen demand. A measure of the oxygen required to oxidise all matter in a sample by chemical reaction
Condy	conductivity, an indication of the level of dissolved salts in a sample, usually measured at 20°C and expressed in mS/m
Cu*	copper
Cumec	A volumetric measure of flow- 1 cubic metre per second (1 ms^{-1})
DO	dissolved oxygen
DRP	dissolved reactive phosphorus
E.coli	escherichia coli, an indicator of the possible presence of faecal material and pathological micro-organisms. Usually expressed as colony forming units per 100 millilitre sample
Ent	enterococci, an indicator of the possible presence of faecal material and pathological micro-organisms. Usually expressed as colony forming units per 100 millilitre of sample
F	fluoride
FC	faecal coliforms, an indicator of the possible presence of faecal material and pathological micro-organisms. Usually expressed as colony forming units per 100 millilitre sample
fresh	elevated flow in a stream, such as after heavy rainfall
g/m3	grams per cubic metre, and equivalent to milligrams per litre (mg/L). In water, this is also equivalent to parts per million (ppm), but the same does not apply to gaseous mixtures
Incident	an event that is alleged or is found to have occurred that may have actual or potential environmental consequences or may involve non-compliance with a consent or rule in a regional plan. Registration of an incident by the Council does not automatically mean such an outcome had actually occurred
Intervention	action/s taken by Council to instruct or direct actions be taken to avoid or reduce the likelihood of an incident occurring
Investigation	action taken by Council to establish what were the

	circumstances/events surrounding an incident including any allegations of an incident
l/s	litres per second
MCI	macroinvertebrate community index; a numerical indication of the state of biological life in a stream that takes into account the sensitivity of the taxa present to organic pollution in stony habitats
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
NH4	ammonium, normally expressed in terms of the mass of nitrogen (N)
NH3	unionised ammonia, normally expressed in terms of the mass of nitrogen
NO_3	nitrate, normally expressed in terms of the mass of nitrogen (N)
NTU	Nephelometric Turbidity Unit, a measure of the turbidity of water
O&G	oil and grease, defined as anything that will dissolve into a particular organic solvent (e.g. hexane). May include both animal material (fats) and mineral matter (hydrocarbons)
Pb*	lead
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
PM_{10}	relatively fine airborne particles (less than 10 micrometre diameter)
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
SQMCI	semi quantitative macroinvertebrate community index;
Temp	temperature, measured in °C (degrees Celsius)
Turb	turbidity, expressed in NTU
UI	Unauthorised Incident
UIR	Unauthorised Incident Register – contains a list of events recorded by the Council on the basis that they may have the potential or actual environmental consequences that may represent a breach of a consent or provision in a Regional Plan
Zn*	zinc

*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 [6034], Taranaki Regional Council, Stratford

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

Appendix I

Resource consent held by Value Timber Limited

TARANAKI REGIONAL COUNCIL
CHIEF EXECUTIVE
PRIVATE BAG 713
47 CLOTEN ROAD
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NEW ZEALAND
PHONE: 06-765 7127
FAX: 06-765 5097
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Please quote our file number on all correspondence

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

Director-Resource Management