

DM & DL Bourke
Quarry Monitoring Programme
Biennial Report
2011-2013

Technical Report 2013–75

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September 2014

Executive summary

DM & DL Bourke operates a quarry located on Onewhaia Road, Normanby in the Waingongoro catchment. The Company holds a resource consent authorising the discharge of treated stormwater into the Waingongoro River. This biennial report for the period July 2011-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.

The company holds one resource consent, which includes a total of 9 conditions setting out the requirements that the Company must satisfy. This renewed consent was granted in January 2012 for a period expiring in June 2029. The next optional review is in June 2017.

The Council's monitoring programme for the 2011-2013 period included six inspections of the site and receiving waters. No water samples were collected for chemical analyses.

The monitoring found that discharges were in compliance with the discharge permit conditions. As in previous years the monitoring indicated no adverse effects in the receiving waters from the quarry activities during any of the inspections.

During the 2011-2013 monitoring period there were no unauthorised incidents associated with the consent holder.

DM & DL Bourke quarry achieved a high level of environmental performance and compliance with the resource consent in the 2011-2013 monitoring period.

This report includes recommendations for the 2013-2015 monitoring period.

Table of contents

| | Page |
|---|------|
| 1. Introduction | 1 |
| 1.1 Structure of this report | 1 |
| 1.2 The Resource Management Act 1991 and monitoring | 1 |
| 1.2.1 Evaluation of environmental and consent performance | 2 |
| 1.3 Process description | 3 |
| 1.3.1 Background | 3 |
| 1.3.2 DM & DL Bourke quarry | 4 |
| 1.4 Resource consent | 5 |
| 1.4.1 Water discharge permit | 5 |
| 1.5 Monitoring programme | 6 |
| 1.5.1 Introduction | 6 |
| 1.5.2 Programme liaison and management | 6 |
| 1.5.3 Site inspections | 6 |
| 1.5.4 Chemical sampling | 6 |
| 2. Results | 7 |
| 2.1 Water | 7 |
| 2.1.1 Inspections | 7 |
| 2.1.2 Sampling | 7 |
| 2.2 Investigations, interventions, and incidents | 8 |
| 3. Discussion | 9 |
| 3.1 Discussion of plant performance | 9 |
| 3.2 Evaluation of performance | 9 |
| 3.3 Recommendations from the 2009-2011 biennial report | 10 |
| 3.4 Alterations to monitoring programme for 2011-2013 | 10 |
| 4. Recommendation | 10 |
| Glossary of common terms and abbreviations | 11 |
| Bibliography and references | 12 |
| Appendix I Resource consent held by DM & DL Bourke | |

List of tables

| | | |
|---------|--|---|
| Table 1 | Summary of performance for Consent 5001-2 discharge of stormwater to the Waingongoro River | 9 |
|---------|--|---|

List of figures

| | | |
|----------|--|---|
| Figure 1 | Location of DM & DL Bourke quarry site | 4 |
|----------|--|---|

1. Introduction

This report is for the period July 2011-June 2013 and describes the monitoring programme associated with resource consent held by DM & DL Bourke. The Company operates a quarry situated on Onewhaia Road, Normanby.

This report covers the results and findings of the monitoring programme implemented by the Council in respect to the consent held by DM & DL Bourke that relates to discharges of water in the Waingongoro catchment. This is the tenth report to be prepared by the Taranaki Regional Council to cover DM & DL Bourke's stormwater discharges and their effects.

1.1 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 1991* (RMA) and the Council's obligations and general approach to monitoring sites through annual programmes, the resource consent held by DM & DL Bourke in the Waingongoro catchment, the nature of the monitoring programme in place for the period under review, and a description of the activities and operations conducted on the consent holders' 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 2013-2015 monitoring period.

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

1.2 The Resource Management Act 1991 and monitoring

The *Resource Management Act 1991* (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 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 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.

1.2.1 Evaluation of environmental and consent performance

Besides discussing the various details of the performance and extent of compliance by the consent holder/s 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 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 required (environmental) or improvement required (administrative 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 the 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 (administrative 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.

1.3 Process description

1.3.1 Background

In the past, a large percentage of aggregate production came from river-based sites within Taranaki. The Waiwhakaiho River supplied much of New Plymouth's requirements as far back as the 1950s with the Waitara River, Waiongana River, Kapuni Stream and Waingongoro River also providing a valuable source of aggregate. The aggregate source within these rivers was often over-exploited. The protective armouring of the boulders and gravel was removed in places, exposing the underlying erodible ash beds and creating deep narrow channels, which moved progressively upstream with no noticeable recovery. This brought about the need for the Shingle Extraction Bylaw introduced in 1974. Aggregate extraction from rivers was then controlled through the issue of permits accompanied by a set of conditions, with the removal of river-based aggregate being restricted to that for river control purposes only.

Historically, land-based sites required steady markets to compete with the easily won river-based extraction operations. However, in the early 1980s, due to the restriction placed on river-based aggregate extraction (and the completion of various major river control programmes and 'Think Big' projects) land-based sites became more widespread (Taranaki Regional Council, 1992).

There are twenty-five operating quarries presently supply aggregate in Taranaki. These quarries are generally located in a reasonable proximity to urban areas, from which the greatest demand for aggregate stems.

Quarrying and extraction of gravel in NZ is regulated by two statutory processes. Allocation and protection of priority rights to extract gravel is obtained under the Crown Minerals Act from NZ Petroleum and Minerals, a division of the Ministry of Economic Development.

Regulatory responsibility for control of environmental effects of quarrying and extraction is under the RMA 1991 as applied by respective regional councils. In some cases these controls may act as a constraint or limitation on allocation decisions.

Sections 15 and 30 of the RMA give regional councils responsibility for the discharge of contaminants into the environment. Discharges of water into water, contaminants onto or into land that may result in water contamination, and contaminants from industrial premises into air or onto/into land, may not take place unless expressly allowed by a

rule in a regional plan, a resource consent, or regulations. Aggregate extraction usually involves washing aggregates, and therefore requires the discharge of wastes. Other discharges, such as emissions to air from crushing and processing plants, disposal of spoil and solid wastes, and discharges of stormwater are also the responsibility of regional councils.

1.3.2 DM & DL Bourke quarry

DM & DL Bourke's quarrying operation is located on the true left bank of the Waingongoro River at Onewhaia Road, north of Normanby. The site lies on a small river terrace adjacent to the Waingongoro River, elevated 4m above the river. The quarry has been operating since 1992 both by the owners for on-farm purposes, and also by contract operators for commercial aggregate sales. The quarry produces less than 3000 m³/year and no washing is performed at this site. Machinery includes a dry crusher and screening plant, digger, and payloader. A 600L diesel tank/trailer is towed in as required.



Figure 1 Location of DM & DL Bourke quarry site

The quarrying area of approximately 3600m² is contoured and banded. All stormwater is directed through the settling pond before discharging to the Waingongoro River. Any sediment entrained in the stormwater is able to settle to the bottom of the settling pond to ensure only clean stormwater is discharged through the pipe and into the river. The settling pond is cleaned out once a year and the channels are cleaned out as is necessary. The existing riparian buffer also helps to filter sediment from stormwater should there be any overflow. The river is bounded by a 10 metre buffer strip.

The quarry is only in operation for approximately 20-25 days out of the year. Stock typically grazes the area through out the year.

1.4 Resource consent

1.4.1 Water discharge permit

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.

Water quality is a primary concern to the Taranaki Regional Council with regard to aggregate extraction. A quarry can operate as either a 'dry' quarry discharging only stormwater or a 'washing' quarry where aggregate washing facilities are in place. Many of the quarries in Taranaki have some form of washing facility and also operate in the vicinity of a water body or have some form of discharge into a water body.

Waste water from aggregate washing has a high silt concentration. Discharge of this water into a waterbody, particularly to a river during low flow, results in a smothering of instream life and deterioration in aesthetic conditions and can affect downstream abstractions of water, local fisheries and recreational activity.

Stormwater is generally less contaminated (in terms of silt concentration) and run-off tends to occur when rivers are in higher flow. This means that the effect of silt contamination is reduced due to lower quantities, dilution and carrying capacity. The installation of appropriate stormwater diversion structures, together with construction and maintenance of contaminated stormwater and aggregate washing discharge treatment facilities are most important in maintaining water quality.

DM & DL Bourke hold water discharge permit **5001-2** to discharge treated stormwater from a quarry site into the Waingongoro River. This permit was issued by the Taranaki Regional Council on 19 January 2012 under Section 87(e) of the RMA.

The consent holder had been operating under expired consent 5001-1, in accordance with Section 124(1) of the RMA, which allows the applicant to operate under the existing consent until a new consent is granted. Consent 5001-2 was issued in January 2012 and has a review date in June 2017. The consent will expire in June 2029.

There were nine special conditions attached to consent 5001-2.

Condition 1 stipulates that the consent holder shall adopt best practice

Condition 2 stipulates that no aggregate washing shall take place at the quarry site.

Condition 3 requires measures to be taken to control erosion and minimise silt and sediment in the stormwater.

Condition 4 states there shall be no direct discharge of untreated stormwater into surface water

Condition 5 requires that the site is contoured and bunded so that all water is directed to a silt control structure for treatment prior to discharge

Condition 6 sets chemical limits on the concentration of the discharge prior to entry to the receiving waters.

Condition 7 requires that the discharge cannot cause specified adverse effects beyond mixing zone.

Condition 8 requires the consent holder to provide a contingency plan to the council.

Condition 9 makes provision for a review of the consent

A copy of the resource consent is attached to Appendix I of this report.

1.5 Monitoring programme

1.5.1 Introduction

Section 35 of the RMA sets out an obligation for 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.

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 Onewhaia Road quarry consists of three primary components.

1.5.2 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.

1.5.3 Site inspections

The monitoring programme requires three inspections per year (six per biennial monitoring period) be undertaken. Two inspections per year are to be carried out immediately following wet weather. The main points of interest were plant processes with potential or actual discharges to receiving watercourses, including contaminated stormwater and process wastewaters. The neighbourhood and particularly the receiving waters were surveyed for environmental effects.

1.5.4 Chemical sampling

A sampling site (STW002062) has been established by the Council, with a sample of the discharge at the stormwater outfall to be collected once per year if warranted. Any samples collected are analysed for pH and suspended solids.

2. Results

2.1 Water

2.1.1 Inspections

Council staff undertook six compliance monitoring inspections during the period under review. The inspection notices are summarised below:

12 October 2011

The quarry was unattended at the time of inspection. The inspection was carried out following a period of rain. A small amount of product was on site. Stormwater was being directed to a holding pond. The pond discharge was having no visual impact on receiving waters. The site was tidy and complying with consent conditions at the time of inspection.

31 January 2012

The quarry was unattended at the time of inspection, but processing was taking place. There was some product stockpiled. Extraction was taking place at the far end of the quarry. The silt pond looked in good condition and the river looked to be running clear. The site was tidy and complying with consent conditions at the time of inspection.

20 June 2012

The quarry was unattended at the time of inspection. The inspection was undertaken following heavy rain. There was product stockpiled and some processing had occurred. The river was in flood and the pond discharge was having no impact on the receiving waters. The site was tidy and complying with consent conditions at the time of inspection.

15 November 2012

Processing was taking place at the time of inspection. There was product stockpiled ready to be processed. There were no ponding or dust issues. The receiving waters were clear. The site was tidy and complying with consent conditions at the time of inspection.

25 January 2013

The site looked good, the extraction area had a discharge drain which had 2 silt traps at end and then it discharged to land. The processing area looked good and there was a pile of metal that was near the river bank quite close to the edge. The silt and sediment controls needed to be installed along the riverbank if the pile was to grow much closer to the river's edge. There were no dust or ponding issues.

27 June 2013

The crusher was operating at time of inspection. There was a lot of material onsite. The reinstated area looked good. However, silt traps before the wetland needed to be dug out before next rain.

2.1.2 Sampling

No water samples were collected for physicochemical analyses during the inspections as this was considered unnecessary. On then four separate occasions when

discharges were found, the discharge was found to be reasonably clear with no visible environmental effects on the receiving waters.

2.2 Investigations, interventions, and incidents

The monitoring programme for the period was based on what was considered to be an appropriate level of monitoring, review of data, and liaison with the consent holder. During the period 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 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 2011-2013 year there were no incidents recorded by the Council that were associated with DM & DL Bourke.

3. Discussion

3.1 Discussion of plant performance

During the 2011-2013 monitoring period six compliance monitoring inspections of the consent holder's Onewhaia Road quarry site were carried out.

No problems were noted at the site during any of the inspections. The site was generally tidy. The discharge from the ponds, observed during several compliance monitoring inspections was causing no adverse effects on the receiving waters.

The consent holder had been operating under expired consent 5001-1, in accordance with Section 124(1) of the RMA, which allows the applicant to operate under the existing consent until a new consent is granted. Consent 5001-2 was issued in January 2012 and has a review date in June 2017. The consent will expire in June 2029.

In terms of the discharges, stormwater control was found to be satisfactory and in compliance with consent conditions.

3.2 Evaluation of performance

A summary of the consent holder's compliance record for the period under review is set out in Table 1.

Table 1 Summary of performance for Consent 5001-2 discharge of stormwater to the Waingongoro River

| Condition requirement | Means of monitoring during period under review | Compliance achieved? |
|---|--|----------------------|
| 1. Adopt best practice | Site inspections | Yes |
| 2. Aggregate washing not permitted | Site inspections | Yes |
| 3. Silt controls must be in place | Site inspections | Yes |
| 4. No direct discharge into the river or tributary | Site inspections | Yes |
| 5. Contour/ bunded site to direct water to settlement pond | Site inspections | Yes |
| 6. Constituents of discharge shall meet consent condition standards | Site inspections/samples taken as required | Yes |
| 7. Discharge cannot cause specified adverse effects beyond mixing zone | Site inspections | Yes |
| 8. Maintain a contingency plan for the event of a spillage and contamination | Contingency plan review by Council officers | Yes |
| 9. Optional review provision re environmental effects | N/A – consent renewal date June 2017 | N/A |
| Overall assessment of consent compliance and environmental performance in respect of this consent | | High |

DM & DL Bourke quarry achieved a high level of environmental performance and compliance with the resource consent in the 2011-2013 monitoring period. No unauthorised incidents were recorded in relation to operations at the site.

3.3 Recommendations from the 2009-2011 biennial report

In the 2009-2011 biennial report, it was recommended:

1. THAT monitoring of discharges from DM &DL Bourke's Onewhaia Road site in the 2009-2011 period continue at the same level as in the 2007-2009 period.

This recommendation was implemented.

3.4 Alterations to monitoring programme for 2013-2015

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 RMA, 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.

In the case of DM & DL Bourke, it is proposed that the monitoring programmes for 2011-2013 be extended to include a biomonitoring survey to further assess the environmental impacts of the discharge.

A recommendation to this effect is made in section 4.

4. Recommendation

1. THAT monitoring of discharges from the DM & DL Bourke quarry site in 2013-2015 be extended to include a biomonitoring survey.

Glossary of common terms and abbreviations

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

| | |
|------------------|---|
| Biomonitoring | Assessing the health of the environment using aquatic organisms. |
| Bund | A wall around a tank to contain its contents in the case of a leak. |
| Condy | Conductivity, an indication of the level of dissolved salts in a sample, usually measured at 20°C and expressed in mS/m. |
| Fresh | Elevated flow in a stream, such as after heavy rainfall. |
| g/m ³ | Grammes per cubic metre, and equivalent to milligrammes per litre (mg/L). In water, this is also equivalent to parts per million (ppm), but the same does not apply to gaseous mixtures. |
| l/s | Litres per second. |
| 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. |
| NTU | Nephelometric Turbidity Unit, a measure of the turbidity of water. |
| 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 subsequent amendments. |
| SS | Suspended solids. |
| Temp | Temperature, measured in °C. |
| Turb | Turbidity, expressed in NTU. |
| UI | Unauthorised Incident - an event recorded by the Council on the basis that it had potential or actual environmental consequences that may represent a breach of a consent or provision in a Regional Plan. |
| UIR | Unauthorised Incident Register. |

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Appendix I
Resource consent held by
DM & DL Bourke



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

CHIEF EXECUTIVE
PRIVATE BAG 713
47 CLOTEN ROAD
STRATFORD
NEW ZEALAND
PHONE: 06-765 7127
FAX: 06-765 5097
www.trc.govt.nz

Please quote our file number
on all correspondence

Name of
Consent Holder: Dennis Mark & Diane Lillian Bourke
158 Onewhaia Road
R D 13
HAWERA 4673

Decision Date: 19 January 2012

Commencement
Date: 19 January 2012

Conditions of Consent

Consent Granted: To discharge treated stormwater from a quarry site
into the Waingongoro River at or about (NZTM)
1707444E-5627164N

Expiry Date: 1 June 2029

Review Date(s): June 2017, June 2023

Site Location: Onewhaia Road, Te Roti

Legal Description: Te-Rua-O-Te-Moko 1C1 Pt 1C2 Blk I Hawera SD
(Discharge source & site)

Catchment: Waingongoro

*For General, Standard and Special conditions
pertaining to this consent please see reverse side of this document*
www.trc.govt.nz

General condition

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

Special conditions

1. The consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to prevent or minimise any adverse effects on the environment from the exercise of this consent.
2. No aggregate washing shall take place at the quarry site.
3. All runoff from any unvegetated area shall pass through a settlement pond or sediment trap with a minimum total capacity of:
- a) 100 cubic metres for every hectare of exposed soil between 1 November to 30 April; and
 - b) 200 cubic metres for every hectare of exposed soil between 1 May to 31 October;
- unless other sediment control measures that achieve an equivalent standard are agreed to by the Chief Executive of the Taranaki Regional Council.
4. There shall be no direct discharge of untreated stormwater into surface water as a result of the exercise of this consent.
5. The active quarry site shall be contoured/bunded to:
- ensure that all water generated in this area is directed to the stormwater treatment system prior to discharge; and
 - prevent the flow of uncontaminated stormwater into this area.
6. Constituents of the discharge shall meet the standards shown in the following table.

| Constituent | Standard |
|--------------------|---|
| suspended solids | Concentration not greater than 200 gm ⁻³ |
| oil and grease | Concentration not greater than 15 gm ⁻³ |

This condition shall apply before entry of the treated stormwater into the receiving waters at a designated sampling point approved by the Chief Executive, Taranaki Regional Council.

7. After allowing for reasonable mixing, within a mixing zone extending 25 metres downstream of the confluence with the unnamed tributary with the Patea River, the discharge shall not give rise to any or all of the following effects in the receiving water of the Patea River:
- a) an increase of pH by more than 0.5 pH units;
 - b) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - c) any conspicuous change in colour or visual clarity;
 - d) any emission of objectionable odour;
 - e) the rendering of fresh water unsuitable for consumption by farm animals;
 - f) any significant adverse effects on aquatic life.

Consent 5001-2

8. The consent holder shall maintain a contingency plan. The contingency plan shall be adhered to in the event of a spill or emergency and shall, to the satisfaction of the Chief Executive, Taranaki Regional Council, detail measures and procedures to be undertaken to prevent spillage or accidental discharge of contaminants not authorised by this consent and measures to avoid, remedy or mitigate the environmental effects of such a spillage or discharge.
9. 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 2017 and/or June 2023 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 19 January 2012

For and on behalf of
Taranaki Regional Council


Director-Resource Management

TRK965001



DISCHARGE PERMIT

**Pursuant to the RESOURCE MANAGEMENT ACT 1991
a resource consent is hereby granted by the
Taranaki Regional Council**

PRIVATE BAG 713
47 CLOTON ROAD
STRATFORD
NEW ZEALAND
PHONE 0-6-765 7127
FAX 0-6-765 5097

Name of
Consent Holder: BOURKE DENNIS M & DIANE L
 ONEWHAIA ROAD RD13 HAWERA

Consent
Granted Date: 18 July 1996

COPY

CONDITIONS OF CONSENT

Consent Granted: TO DISCHARGE UP TO 50 LITRES/SECOND OF TREATED
 STORMWATER FROM A QUARRY SITE INTO THE
 WAINGONGORO RIVER AT OR ABOUT GR: Q21:175-889

Expiry Date: 1 June 2011

Review Date[s]: June 1999 and June 2005

Site Location: ONEWHAIA ROAD RD13 HAWERA

Legal Description: SEC 36 BLK XIII NGAERE SD

Catchment: WAINGONGORO 350.000

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

GENERAL CONDITIONS

- (a) That on receipt of a requirement from the General Manager, Taranaki Regional Council (hereinafter the General Manager), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- (b) That 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) That 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;
 - (ii) charges for the carrying out of the Council's functions under section 35 in relation to this consent; and
 - (iii) charges authorised by regulations.

SPECIAL CONDITIONS

- 1. THAT there shall be no direct discharge of untreated stormwater from the active quarry site into the unnamed tributary or the Waingongoro River, as a result of the exercise of this consent.
- 2. THAT the active quarry site shall be contoured/bunded so that all water generated in this area is directed to the silt control structure for treatment prior to discharge and to prevent the flow of uncontaminated stormwater into this area, to the satisfaction of the General Manager, Taranaki Regional Council.
- 3. THAT the consent holder shall undertake measures during excavation to control erosion of exposed areas within the quarry site and to minimise the amounts of silt and sediment which could be contained in the stormwater licensed by this consent, to the satisfaction of the General Manager, Taranaki Regional Council.
- 4. THAT the consent holder shall operate and progressively reinstate the quarry site in a manner which minimises the quarry stormwater catchment area, and ensures that the area of exposed unvegetated earth within the quarry's stormwater catchment is kept to a minimum at all times, to the satisfaction of the General Manager, Taranaki Regional Council.
- 5. THAT the consent holder shall properly and efficiently maintain and operate the silt control structure in such a manner that any discharge which may occur shall not breach the conditions of this consent, and any mitigation works shall be designed and constructed to a standard, to the satisfaction of the General Manager, Taranaki Regional Council. The silt control structure shall be operated, as far as practicable, so as to maximise the treatment of the stormwater, and to minimise the duration and frequency of the discharge.
- 6. THAT the following concentrations shall not be exceeded in the discharge:

| <u>Component</u> | <u>Concentration</u> |
|------------------|----------------------|
| pH [range] | 6 - 9 |
| Suspended solids | 200 gm ⁻³ |

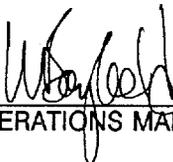
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This condition shall apply prior to the entry of the stormwater into the receiving waters of the Waingongoro River, at a designated sampling point approved by the General Manager, Taranaki Regional Council.

7. THAT after allowing for reasonable mixing, within a mixing zone extending 25 metres downstream of the discharge point, the discharge shall not give rise to any of the following effects in the receiving waters of the Waingongoro River:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in colour or visual clarity;
 - c) any emission of objectionable odour;
 - d) the rendering of fresh water unsuitable for consumption by farm animals;
 - e) any significant adverse effects on aquatic life.
8. THAT no aggregate washing shall take place at the quarry site.
9. THAT within three months of the granting of this consent, the consent holder shall provide and maintain a contingency plan, to the satisfaction of the General Manager, Taranaki Regional Council, outlining measures and procedures to be undertaken to prevent the spillage or accidental discharge of contaminants, and the procedures to be carried out should such a spillage occur.
10. THAT on cessation of quarrying operations at the site licensed by this consent, the active quarry area, including the silt control structures, and surrounding areas, shall be reinstated, to the satisfaction of the General Manager, Taranaki Regional Council, prior to the surrender, or lapsing of this consent.
11. THAT the Taranaki Regional Council may review any or all of the conditions of this consent by giving notice of review during the month of June 1999 and/or June 2005 for the purpose of ensuring that the conditions are adequate to deal with the environmental effects arising from the exercise of this consent.

Signed at Stratford on 18 July 1996

For and on behalf of
TARANAKI REGIONAL COUNCIL


OPERATIONS MANAGER



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