

Mangati Catchment

Joint Monitoring Programme

Annual Report

2022-2023

Technical Report 2023-15



Working with people | caring for Taranaki

Taranaki Regional Council
Private Bag 713
Stratford

ISSN: 1178-1467 (Online)
Document: 3181054 (Word)
Document: 3244550 (Pdf)
April 2024

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Executive summary

This report is the Annual Report for the period July 2022 to June 2023 by the Taranaki Regional Council (the Council) describing the monitoring programme associated with 14 industries within the catchment of the Mangati Stream, Bell Block.

Overall, a good level of environmental performance was achieved by the consent holders in the industrial area of the Mangati Stream catchment.

The Mangati catchment has, in the past, been heavily utilised for the disposal of stormwater and wastewaters from a large number of industrial sites. As a consequence of inadequate treatment and management of discharges and minimal dilution capacity in the past, the water quality and aquatic ecosystems of the stream were significantly impacted. The Mangati Stream catchment is listed in the Regional Fresh Water Plan for Taranaki (Appendix III) as having been identified for enhancement of natural, ecological and amenity values, and life supporting capacity. The Council has addressed this by requiring consents for discharges from every industrial site within the catchment that has significant potential for contamination. A combined monitoring programme has been implemented by Council to monitor these discharges, and since the 2002-2003 year a holistic approach has been applied to the monitoring of abstractions and discharges to all media.

During the 2022-2023 monitoring period a total of 15 water discharge consents, four air discharge consents, one water take, and one discharge to land consents were held by industries in this catchment. This report covers the results and findings during this monitoring period for these 21 consents, which contain a total of 221 special conditions that the consent holders must satisfy. It represents the 26th report produced by Council to cover water discharges by industries within the catchment and their effects, and is the 16th combined report to cover abstractions and discharges to all media.

Monitoring during the year under review included 39 site inspections, discussions with site operators over site management, 50 discharge samples and receiving water samples, 16 macroinvertebrate samples, and several odour surveys.

Historically, chemical and biological monitoring results for the Mangati catchment have shown there to be a two-stage reduction in water quality, one below the main stormwater outlet from Tegel Foods poultry processing plant, the other below the industrial drain which joins the stream at the main highway.

Receiving water monitoring results for the year were generally in line with historical ranges. However, as occasionally noted in recent years, the water tends to be of a lesser quality mid-catchment due to the increase or decrease of some parameters (suspended solids, biological oxygen demand, nitrate, ammoniacal nitrogen, dissolved oxygen).

During the period under review, the instream dissolved zinc and copper concentrations met the appropriate USEPA acute or chronic exposure guidelines in all six samples. None of the instream samples taken during the period under review exceeded the 0.025 g/m³ Regional Fresh Water Plan unionised ammonia guideline, or the 0.9 g/m³ total ammonia national guideline.

A total of five fish species were identified during the fish survey conducted at three different sites in the Mangati catchment. The results indicates that there is a decrease of fish number upstream of the Mangati catchment. Compared to the last four fish surveys, the fish abundance is decreasing over the catchment, the specie richness is constant at two sites and increases at the upstream site.

Overall, the results of the survey indicated that macroinvertebrate health was generally 'poor' for the surveyed sites in the Mangati Stream. Additionally, there was likely to have been discharge(s) below site A3 that have had a significant negative impact on the macroinvertebrate communities present in the Mangati Stream.

There were three non-compliances and one incident recorded in the Mangati catchment during the period under review which related to the consented companies monitored under this catchment programme.

During the year, Barton Holdings Limited demonstrated a **good** level of environmental and a **high** level of administrative performance and compliance with their resource consent defined in Appendix II.

During the year, First Gas Limited demonstrated a **high** level of environmental and administrative performance with their resource consent defined in Appendix II.

During the year, Greymouth Petroleum Acquisition Company Limited demonstrated a **high** level of environmental and administrative performance and compliance with their resource consent as defined in Appendix II.

During the year, J Swap Contractors Limited's level of environmental and administrative performance were both **high** as defined in Appendix II.

During the year, McKechnie Aluminium Solutions Limited demonstrated a **good** level of environmental and a **high** level of administrative performance and compliance with their resource consent defined in Appendix II.

During the year, NPDC demonstrated a **high** level of environmental and administrative performance and compliance with their resource consent defined in Appendix II.

During the year, Nexans New Zealand Limited demonstrated a **high** level of environmental and administrative performance and compliance with their resource consents defined in Appendix II.

During the year, OMV New Zealand Limited demonstrated a **high** level of environmental and administrative performance and compliance with their resource consent defined in Appendix II.

During the year, Schlumberger New Zealand Limited demonstrated a **high** level of environmental and a **high** level of administrative performance and compliance with their resource consents defined in Appendix II.

During the year, Tasman Oil Tools Limited demonstrated a **high** level of environmental and administrative performance and compliance with their resource consent defined in Appendix II.

During the year, Tegel Foods Limited (Feedmill) demonstrated a **good** level of environmental performance and compliance with their resource consent. The Company demonstrated a **high** level of administrative performance as defined in Appendix II.

During the year, Tegel Foods Limited (Poultry Processing) demonstrated a **high** level of environmental and administrative performance and compliance with their resource consent as defined in Appendix II.

During the year, MOVE Freight Limited demonstrated a **high** level of environmental performance, administrative performance and compliance with their resource consent defined in Appendix II.

During the year under review, W Abraham Limited demonstrated a **high** level of environmental and administrative performance and compliance with their resource consent defined in Appendix II.

For reference, in the 2022-2023 year, consent holders were found to achieve a high level of environmental performance and compliance for 878 (87%) of a total of 1007 consents monitored through the Taranaki tailored monitoring programmes, while for another 96 (10%) of the consents, a good level of environmental performance and compliance was achieved. A further 27 (3%) of consents monitored required improvement in their performance, while the remaining one (< 1%) achieved a rating of poor).

In terms of overall environmental and compliance performance by the consent holders over the last several years, this report shows that overall the consent holders' performance at a good level in the year under review.

This report includes recommendations for the 2023-2024 year.

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1 Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is for the period July 2022 to June 2023 by the Taranaki Regional Council (the Council) on the monitoring programme associated with 21 resource consents held by 13 consent holders in the Mangati Catchment.

This report includes the results and findings of the monitoring programme implemented by the Council in respect of these consents, which relate to discharges to water and emissions to air within the Mangati 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 use of water, land and air by these consent holders, and is the 26th combined annual report by the Council for this catchment.

The Mangati Stream has a narrow catchment that runs from south to north in the lowland between the Waiwhakaiho and Waiongana River systems. The total catchment area is approximately 6.1 km². The length of the catchment, from the headwaters between Paraite and Corbett Roads to the sea at Bell Block beach, is approximately five kilometres.

The industrial area at Bell Block is situated mid-catchment (Figure 1). Historically, the industrial areas were located predominantly on the western side of the stream however ongoing development since 2016 has resulted in more sites on the eastern side. These sites fall under permitted activity rules and are not covered by this monitoring report. Upstream, land use is pastoral and horticultural. Downstream, the Mangati flows through the residential area of Bell Block. The Mangati Reserve, with its popular well maintained walkway, borders the stream immediately below the industrial area. The beach at the mouth of the stream is also a popular recreational area.

The Mangati Stream has been the subject of numerous pollution incidents in past years, the large majority of which have related to water discharges from the industrial area.

The Council's response to the continued pollution of the Mangati Stream has been to require licensing of discharges of wastewater or stormwater from sites where there is the potential for contamination to occur. Thus, the Mangati Stream Catchment Monitoring Programme was implemented to ensure compliance with these consents and to determine the effects of the discharges on the water quality and biota of the stream.



Figure 1 Mangati Catchment

1.1.2 Structure of this report

Section 1 of this report is a background section. It sets out general information about:

- consent compliance monitoring under the RMA and the Council's obligations;
- the Council's approach to monitoring sites through annual programmes;
- the resource consents held by the companies in the Mangati catchment;
- the nature of the monitoring programme in place for the period under review; and
- a description of the activities and operations conducted in the catchment.

Sections 2-15 separately detail each company's onsite activities and performance.

In each **subsection 1** (e.g. section 2.1) there is a general description of the industrial activity and associated discharges, a photograph or map showing the location of the activity, and an outline of the matters covered by the company's permit/s.

Subsections 2 and 3 present the monitoring results of the company's activities during the period under review, including scientific and technical data, and any information on the Council's Register of Incidents.

Section 16 discusses the results of the monitoring of the Mangati Stream, their interpretation and their significance.

Section 17 discusses the general site performance of the consent holders within the catchment, their interpretation, and their significance for the environment in the immediate vicinity of the sites under discussion.

Section 18 presents recommendations to be implemented in the 2023-2024 monitoring year.

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

1.1.3 The Resource Management Act 1991 and monitoring

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

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

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

1.1.4 Evaluation of environmental and administrative performance

Besides discussing the various details of the performance and extent of compliance by the consent holders, this report also assigns a rating as to each Company's environmental and administrative performance during the period under review. The rating categories are high, good, improvement required and poor for both environmental and administrative performance. The interpretations for these ratings are found in Appendix II.

For reference, in the 2022-2023 year, consent holders were found to achieve a high level of environmental performance and compliance for 878 (87%) of a total of 1007 consents monitored through the Taranaki tailored monitoring programmes, while for another 96 (10%) of the consents, a good level of environmental

performance and compliance was achieved. A further 27 (3%) of consents monitored required improvement in their performance, while one (< 1%) achieved a rating of poor.¹

1.2 Resource consents

The resource consents covered by the Mangati Catchment Joint Monitoring Programme are shown in Table 1 and their locations are shown in Figure 2. A total of 21 consents were included in the monitoring programme during the 2022-2023 monitoring period. Of these, 15 licence discharges to water, one licence a discharge to land, one license for groundwater take, and four licence discharges to air. These consents include a total of 226 special conditions. There are a small number of other consented discharges in the catchment, such as agricultural discharges, which are not covered directly by this monitoring programme.

Outlines of the companies' activities and the special conditions on their consents are presented in sections 2-15 of this report, and copies of the full consents are given in numerical order in Appendix I.

Most stormwater discharge consents have the most recent standardised special conditions that;

- require the consent holder to adopt best practice;
- limit the area from which stormwater can be discharged;
- require the use of a stormwater treatment system;
- limit constituents of the discharge, with specific regard to pH, suspended solids and oil and grease;
- require that the discharge does not cause certain effects in the receiving waters;
- require that the consent holder maintain a spill contingency plan;
- require that the consent holder maintain and adhere to a management plan;
- require the consent holder to notify Council prior to making any changes to the site or site processes;
- set a lapse date (where applicable); and
- set dates for optional review.

¹ The Council has used these compliance grading criteria for more than 19 years. They align closely with the 4 compliance grades in the MfE Best Practice Guidelines for Compliance, Monitoring and Enforcement, 2018

Table 1 Resource consents in the Mangati Catchment

Consent holder	Resource consent	Purpose	Granted	Next review date	Expiry date
<i>Water discharge permits</i>					
Barton Holdings Limited	7707-1	To discharge stormwater into the Mangati Stream	31 May 2011	-	1 June 2026
First Gas Limited	4780-2	To discharge stormwater and vehicle wash water to the Mangati Stream	17 Dec 2015	June 2026	1 June 2032
Greymouth Petroleum Acquisitions Company Limited	4664-3.1	To discharge treated stormwater from a pipe yard used for the cleaning and storage of casing and drilling equipment, and the storage of hazardous substances, onto and into land in circumstances where it may enter the Mangati Stream	6 Aug 2020	-	1 June 2026
J Swap Contractors Limited	10085-1	To discharge stormwater from a transport depot into an unnamed tributary of the Mangati Stream	7 Oct 2015	June 2026	1 June 2032
McKechnie Aluminium Solutions Limited	3139-3	To discharge stormwater (including cooling water) from an industrial site into an unnamed tributary of the Mangati Stream	2 Nov 2007	-	1 June 2026
New Plymouth District Council	4302-2	To discharge up to 5,200 L/s of stormwater from industrial sealed areas and roofs through piped stormwater systems into the Mangati Stream	11 Sept 2002	-	1 June 2020*
Nexans New Zealand Limited	4497-3	To discharge stormwater and cooling water from an electric wire and cable manufacturing site into the Mangati Stream	25 June 2008	-	1 June 2026
	3913-3.1	To discharge stormwater from an industrial site into an unnamed tributary of the Mangati Stream	6 Aug 2020	June 2026	1 June 2032
Schlumberger New Zealand Limited	6032-1	To discharge treated wash water and stormwater from a storage and maintenance premises for oil field exploration equipment into the Mangati Stream	27 Aug 2008	-	1 June 2020*
Tasman Oil Tools Limited	4812-2.1	To discharge up to 112 L/s of stormwater including washdown water from a storage and maintenance yard for oil field drilling equipment into an unnamed tributary of the Mangati Stream	05 Aug 2014	-	1 June 2020*
Tegel Foods Limited (Feedmill)	2335-4	To discharge stormwater from a stock/poultry feed manufacturing site to the NPDC stormwater drainage network	12 Feb 2014	June 2023	1 June 2026
	3470-4	To discharge stormwater from a poultry processing plant site to the NPDC drainage network	23 Dec 2013	June 2023	1 June 2026

Consent holder	Resource consent	Purpose	Granted	Next review date	Expiry date
Tegel Foods Limited (Poultry Plant)	7389-1	To discharge stormwater from a poultry processing plant via a wetland into the Mangati Stream	6 Aug 2020	-	1 June 2026
MOVE Freight Limited	6952-1	To discharge stormwater from a truck depot into and onto land in the vicinity of the Mangaone Stream in the Waiwhakaiho catchment	20 Sept 2006	-	1 June 2020*
	7578-1	To discharge stormwater from a truck depot into the Mangati Stream	20 Apr 2010	-	1 June 2026
<i>Air discharge permit</i>					
Nexans New Zealand Limited	5417-2	To discharge emissions into the air from an electric wire and cable manufacturing plant and associated activities	24 Feb 2015	June 2026	1 June 2032
Tegel Foods Limited (Feedmill)	4038-6	To discharge emissions into the air from the milling and blending of grain and/or animal meals together with associated activities	23 Nov 2001	-	1 June 2020*
Tegel Foods Limited (Poultry Plant)	4026-3	To discharge emissions into the air from the processing of animal matter and associated processes	16 June 2014	June 2026	1 June 2032
W Abraham Limited	7147-2	To discharge emissions into the air from the operation of a crematorium including a natural gas-fired cremator	11 May 2015	June 2026	1 June 2032
<i>Discharges of waste to land</i>					
Tegel Foods Limited (Poultry Plant)	5494-2	To discharge poultry processing wastes by burial into land in the vicinity of the Mangati Stream in emergency circumstances only	24 Oct 2014	June 2026	1 June 2032
<i>Water take permit</i>					
Tegel Foods Limited	6357-1.2	To take and use groundwater from a bore for food processing and washdown purposes	15 Apr 2015	June 2026	1 June 2038

* Consent renewal underway – continues to operate under RMA s.124 protection



Figure 2 Location of discharge sites and surface water monitoring sites

1.3 Monitoring programme

1.3.1 Introduction

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

The Council may therefore make and record measurements of physical and chemical parameters, take samples for analysis, carry out surveys and inspections, conduct investigations and seek information from consent holders. The monitoring programme for the industries in the Mangati catchment consisted of nine primary components.

1.3.2 Programme liaison and management

There is generally a significant investment of time and resources by the Council in:

- ongoing liaison with resource consent holders over consent conditions and their interpretation and application;
- discussion over monitoring requirements;
- preparation for any consent reviews, renewals or new consent applications;
- advice on the Council's environmental management strategies and content of regional plans; and
- consultation on associated matters.

1.3.3 Site inspections

Council officers undertook 39 routine site inspections of the consent holders' sites. With regard to consents for discharges to water, the main points of interest were plant processes with potential or actual discharges to receiving watercourses, including contaminated stormwater and process wastewaters. During inspections at sites with air discharge consents, ambient monitoring of suspended particulate and other emissions were undertaken as appropriate.

1.3.4 Discharge sampling

The Council took 27 stormwater samples either via integrated catchment sampling runs or individually during wet weather inspections. Each sample was analysed for the expected contaminants and other physical characteristics of the discharges from each site.

1.3.5 Receiving water sampling

The Council took 22 receiving water samples during two integrated wet weather surveys, and seven receiving water samples during one integrated dry run survey. Each sampling site (Figure 2) is located to serve as either an upstream control or downstream impact assessment site for any given discharge.

1.3.6 Air monitoring

The Council undertook odour surveys in the neighbourhood of each site during inspections and ambient and discharge dust monitoring was undertaken using hand held electronic equipment. The monitoring programme provides for deposition gauging to be conducted every three years, this will next be included in the 2024-2025 monitoring programme at selected locations in the vicinity of Tegel Poultry Ltd's feedmill site.

1.3.7 Macroinvertebrate surveys

A biological (macroinvertebrate) survey was performed on two occasions at eight sites in the Mangati Stream to determine whether or not the discharges of treated and untreated stormwater, treated wash water and cooling waters from the sites have had a detrimental effect upon the communities of the stream. Monitoring was undertaken on 4 January 2023 and 7 March 2023.

1.3.8 Fish survey

Electric fishing and spotlighting are techniques commonly used for the assessment of fish species present in waterways. The fish communities have been monitored in the past in three areas focused around MGT000491, MGT000512 and MGT000520.

Electric fishing surveys have been undertaken intermittently with the previous surveys carried out in December 1990, March 2001, and June 2007. In the 2010-2011 year it was determined by the Council's freshwater biologist that spotlighting was a more appropriate method for this small stream, and so triennial spotlight fish surveys were recommended with the first of these carried out in March 2011 and again in the 2013-2014 and 2016-2017 periods.

In the March 2011 fish survey report it was suggested that future surveys may benefit from the inclusion of fyke nets set in the stream, to try and capture larger, more secretive fish. This was due to the fact that all fish found were less than two years old, and some fish that could be expected to inhabit this stream were not recorded, e.g. giant kokopu, longfin eel. It was concluded that although this may be cause for concern, it may also be as a result of the monitoring method, rather than being indicative of environmental effects.

Fish surveys are scheduled every three years and one was due to be undertaken during the 2019-2020 monitoring period. As a result of the Covid-19 2020 lockdown, this was undertaken during the 2020-2021 period instead. The survey scheduled for the 2022-2023 monitoring year was undertaken in February 2023.

1.3.9 Data review

Special condition 4 of water abstraction consent 6357-1.2 held by Tegel Poultry Processing requires that their abstraction records are forwarded to Council by 31 July each year. Council undertakes reviews to ensure that the required records are being kept and that any abstraction has been managed according to the requirements of the consent.

Other data collected by consent holders and/or records that they are required to keep are requested periodically and reviewed by Council Officers for compliance with consent conditions.

1.3.10 Hydrological and environmental telemetry

During the 2022-2023 period the Council continued to maintain a hydrological and meteorological recording station at the bottom of the industrial catchment. This site had been fitted with a multi parameter sonde for the continuous monitoring of pH, conductivity, turbidity, dissolved oxygen and dissolved organic matter since the 2016-2017 period.

2 Barton Holdings Limited

2.1 Site description

Barton Holdings Limited (Barton) supplies liquid and dry stock feed from a 0.46 ha storage site at 21 Paraite Road, in the industrial area of Bell Block (Figure 3). GrainCorp Feeds Ltd originally operated this site, however during the 2017-2018 monitoring period, the consent was transferred to Barton.

Stormwater from the site discharges via the New Plymouth District Council (NPDC) reticulated system and stormwater ponds, into the Mangati Stream.

Barton holds water discharge permit **7707-1** to cover the discharge of stormwater into the Mangati Stream. This consent contains the standard special conditions as given in section 1.2 and two additional special conditions requiring all hazardous substances to be bunded and limiting the filtered carbonaceous biochemical oxygen demand (CBOD) in the Mangati Stream below the mixing zone. A copy of this permit is attached to this report in Appendix I.



Figure 3 Aerial view of Barton site, with the location of the associated discharge sampling point

2.2 Results

2.2.1 Inspections

Three routine inspections were conducted at the site during the monitoring period, on 17 October 2022, 11 May, and 28 June 2023.

The site was found clean, tidy and well maintained during the inspections. The sheds entrance was clean of dust track. There were drain socks in place on the stormwater drains. All chemicals were stored appropriately within the bunded area with no leaks or spills. There was no odour detected on site.

2.2.2 Results of discharge monitoring

The primary monitoring site is located at a manhole along the western side of Greymouth Petroleum's offices (site STW001138, Figure 3). The discharge point was visited on one occasions during the year under review and the results of the discharge monitoring are given in Table 2.

Table 2 Barton stormwater sampling results, site STW001138

Parameter	Unit	17 November 2022	Consent limits
Temperature	°C	21.0	-
pH	pH	6.9	6.0 – 9.0
Conductivity	mS/cm	2.8	-
Suspended Solids	g/m ³	120	100
Turbidity	FNU	22	-
TBOD	g O ₂ /m ³	7.3	25
Total hydrocarbons	g/m ³	visual pass	15*

* hydrocarbons measured in place of oil & grease

The samples complied with consent conditions in place for pH, total biological oxygen demand and hydrocarbons. The suspended solids were higher than the consent limit on 17 November 2022. An abatement notice was issued and a letter requesting explanation was sent to Barton in relation to this non-compliance. An explanation was received. No further action was required.

2.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with Barton's conditions in resource consents or provisions in Regional Plans.

2.4 Evaluation of performance

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

Table 3 Summary of performance for Barton consent 7707-1

Purpose: To discharge stormwater into the Mangati Steam		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment	Inspections and discussion with consent holder	Yes
2. Limits stormwater catchment area	Inspections	Yes
3. Stormwater from loading/unloading area to be directed through a stormwater diversion system by 31 July 2011	Inspections	Yes
4. Above ground hazardous substance storage to be bunded	Inspections and discussion with consent holder	Yes

Purpose: To discharge stormwater into the Mangati Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
5. Limits on chemical composition of discharge	Discharge sampling	No – one TSS exceeded limit, resulting in an abatement notice
6. Discharge cannot cause specified adverse effects in Mangati Stream	Receiving water sampling and observations	Yes
7. Limit on filtered carbonaceous BOD of stream	Receiving water sampling and observations	N/A
8. Provision (by 31 July 2011) and maintenance of a contingency plan for action to be taken to prevent spillage	Received in May 2023	Yes
9. Provision (by 31 July 2011), maintenance and adherence to stormwater management plan	Received in May 2023	Yes
10. Written notification required regarding changes to activities at the site. Notification to include assessment of environmental effects	Inspections and discussion with consent holder	Yes
11. Lapse of consent	Consent exercised	N/A
12. Optional review provision	No further option for review prior to expiry	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 or not assessed

During the year, Barton Holdings Limited demonstrated a good level of environmental performance and compliance with their resource consent and a high level of administrative performance as defined in Appendix II.

3 First Gas Limited

3.1 Site description

First Gas Limited (First Gas) operates a warehouse and gas pipe storage yard on the southern side of Connett Road West, adjacent to the Mangati Stream (Figure 4). Although the stormwater discharge from this site is consented, up to the end of the 2003-2004 monitoring period the consent holder had not been included in the compliance monitoring programme for the Mangati Catchment.

The area of the site is approximately 4 ha. The operation building and maintenance building along with sealed car parking area and access make up approximately 60 percent of the area. The remaining 40 percent is covered in grass. The maintenance shed is enclosed, and any wash water from inside the shed is directed to a holding system which is emptied by a licensed wastewater collector.



Figure 4 Aerial view of First Gas site and location of First Gas combined discharge from Connett Road

Discharges from the site are monitored as part of the combined discharge from the Connett Road stormwater (site STW001055), and periodically at the southern discharge point which enters the open stormwater drain below Tasman Oil and Greymouth Petroleum.

The site is considered to pose only a very low environmental risk and is therefore only scheduled for two inspections per year, however additional inspections are carried out on occasions when the inspecting officer is in the area. The onsite vehicle wash bay is currently decommissioned and no longer discharges to the stormwater system.

First Gas holds consent **4780-2** to discharge stormwater and vehicle wash water to the Mangati Stream. The consent contains the standard special conditions as set out in section 1.2. It also contains extra conditions that are specific to the site, requiring any vehicle wash water be treated and the consent holder to sample and analyse the wash water. A copy of the permit is attached to this report in Appendix I.

3.2 Results

3.2.1 Inspections

Two routine inspections were conducted at the site during the monitoring period, on 17 October 2022 and 11 May 2023.

The site was found clean, tidy and well maintained. The washdown area was clean, clear and tidy with no evidence of recent use. A new chemical shed, which contains its own bunded area, was installed during the year under review. The site was rated as compliant at the time of the two inspections.

3.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with First Gas' conditions in resource consents or provisions in Regional Plans.

3.4 Evaluation of performance

A tabular summary of First Gas' compliance record for the year under review is set out in Table 4.

Table 4 Summary of performance for First Gas consent 4780-2

Purpose: To discharge stormwater and vehicle wash water to Mangati Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Require best practice be adopted	Inspections and liaison	Yes
2. Specifies catchment area	Inspections	Yes
3. Require treatment of vehicle wash water	Wash bay decommissioned	N/A
4. Limits on chemical composition of discharge	Visual inspections	Yes
5. Sampling of wash water	Wash bay decommissioned	N//A
6. Limits effects on receiving waters	Visual inspections and sampling	Yes
7. Maintain contingency plan	Plan being updated	Yes
8. Maintain and adhere to a management plan	Plan being updated	Yes
9. Notification of changes to site processes	Inspections and liaison with staff	Yes
10. Review condition	Next option for review June 2026	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the period under review, First Gas Limited demonstrated a high level of environmental and administrative performance and compliance with their resource consent as defined in Appendix II.

4 Greymouth Petroleum Acquisitions Company Limited

4.1 Site description

Greymouth Petroleum Acquisitions Company Limited's (GPL) pipe yard on De Havilland Drive (Figure 5), formerly operated by Fletcher Challenge Energy Taranaki Ltd (FCET), was established in 1986 as a storage area for well casing, drill pipe and other drilling and testing equipment used in the oil industry. The yard has been used for cleaning and preservation of casing and drill pipe.

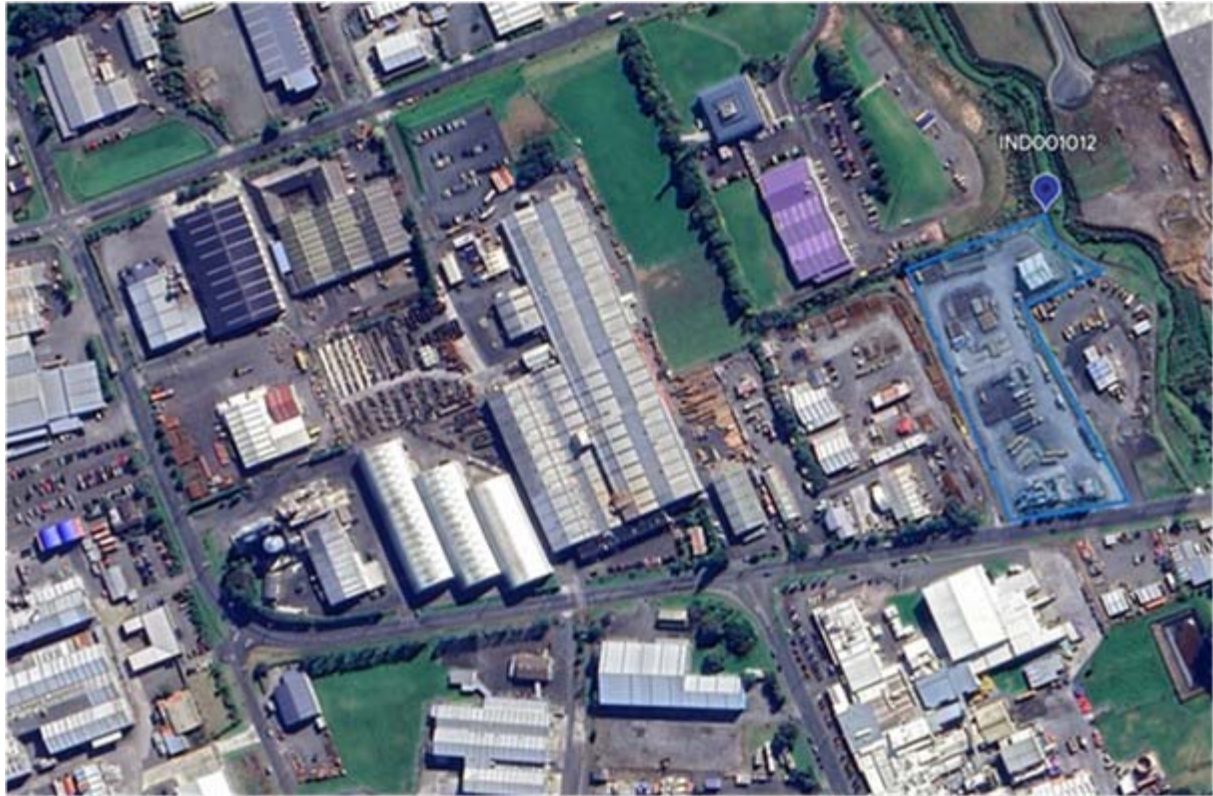


Figure 5 Aerial view of GPL site, with the location of the associated discharge sampling point

During development of the site, about 1 ha of the 1.48 ha area was levelled with a 2% slope eastward towards the Mangati Stream. The surface was overlain with filter cloth and metal. Perimeter drains were made along the western and northern boundaries (to divert stormwater from upslope around the site) and along the eastern boundary to collect stormwater runoff from the site itself. An oil skimmer interceptor was constructed on the eastern drain, above its junction with the northern drain, for removal of hydrocarbons. Separated hydrocarbons are skimmed off the surface of the separator as necessary and disposed of.

In the 2016-2017 period, a separate sediment retention pond was installed in the stormwater system below the interceptor but above the final holding pond. Originally the discharge from the holding pond entered a small open drain where it mixed with discharges from Tasman Oil Tools and First Gas prior to being discharged to the Mangati Stream. Works undertaken in the 2016-2017 monitoring period resulted in the discharges from First Gas and Tasman Tools being piped along the bottom of the dry stream bed and GPL stormwater discharging to a gravel filter bed laid over the top of the pipework. These works were undertaken to improve the quality of the discharges from the GPL site.

GPL holds water discharge permit **4664-3.1** to cover the discharge of treated stormwater from a pipe yard used for the cleaning and storage of casing and drilling equipment, and the storage of hazardous substances. The consent contains the standard special conditions as given in section 1.2. A copy of this permit is attached to this report in Appendix I.

4.2 Results

4.2.1 Inspections

Three routine inspections were conducted at the site during the monitoring period, on 31 October 2022, 27 January and 27 June 2023.

The site was clean and tidy at the time of the inspections. All stormwater collected was directed to the treatment system. The first sediment retention pond was discoloured at the time of the inspections. The second pond was discoloured and there was a hydrocarbon sheen at the surface of it during the October 2022 inspection. During the January 2023 inspection, in the second pond, the water was clear and the level of water was low. The chemicals and hazardous substances were stored appropriately in well bunded area.

On two occasions, it was discussed onsite how the height/flow of the sump adjacent to the tank bund could be controlled. The sump requires vigilance and constant maintenance to prevent it from filling up and overflowing onto and into the yard. Eliminating this risk is considered as the best practicable option by the Council, as the yard is not mowed overnight and during the weekends, when heavy rainfall events can happen. A potential solution that was discussed was the placement of a pump with float switch that would pump sump water into the tank bund or another similar storage tank for removal at a time that was suitable for staff.

4.2.2 Results of discharge monitoring

The primary monitoring site for GPL's discharge is at site (IND001012) where it exits the gravel filter bed into a drain which discharges to the Mangati Stream. The recent stormwater upgrades and introduction of the gravel filter bed have reduced the frequency of discharge from the GPL site.

The site was visited twice for sampling during the period under review, however no discharge was occurring and as such no samples were collected. Copper, lead and zinc are monitored at this site as it is known that, historically, greases containing these contaminants were washed from pipes and the wash water was discharged to land. Although the grease currently used does not contain these elements, and the wash down wastewater is now directed to trade waste, this historical practice resulted in an elevated concentration of copper, lead and zinc in the soil on site. Shortly after taking over the site, Greymouth Petroleum undertook remediation work in the vicinity of the wash pad, stormwater basin and open drain exiting the site to address this. It is however noted that there is the potential for these contaminants to still be present in other areas of the site surface, and that they may become entrained in stormwater and discharged offsite.

4.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with GPL's conditions in resource consents or provisions in Regional Plans.

4.4 Evaluation of performance

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

Table 5 Summary of performance for GPL consent 4664-3

Purpose: <i>To discharge treated stormwater from a pipe yard</i>		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment	Inspections and discussion with consent holder	Yes
2. Limit on stormwater catchment area	Inspections	Yes
3. Stormwater to be discharged through treatment system	Observation at inspections	Yes
4. Limits on chemical composition of discharge	No discharge at the time of sampling visit	N/A
5. Consent holder to provide all weather access to sampling site	Inspections and liaison with consent holder	Yes
6. Discharge cannot cause specified adverse effects beyond mixing zone	Results of receiving water sampling and observation at the time of sampling	Yes
7. Activities to be conducted in accordance with Environmental Management Plan	Inspections and liaison with consent holder	Yes
8. Plan to be reviewed on request from Council or prior to changes at the site	Updated document supplied June 2020	Yes
9. Optional review provision regarding environmental effects	No further provision for review prior to expiry	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, Greymouth Petroleum Acquisitions Company Limited demonstrated a high level of environmental and administrative performance and compliance with their resource consent as defined in Appendix II.

5 J Swap Contractors Limited

5.1 Site description

J Swap Contractors Limited (J Swap) operate a feed store on the corner of Corbett Road and de Havilland Drive (Figure 6). The site is predominantly used for the storage and dispatch of palm kernel expeller cattle feed. There are two feed stores on the site in which palm kernel is stored, screened and then loaded on to trucks for delivery. A small section of one of the buildings is occupied by Ballance Agri-Nutrients where fertilisers are stored and transferred.



Figure 6 Aerial view of J Swap site, with the location of the associated discharge sampling points

J Swap operate a truck wash onsite which sends wash water to trade waste. After 60 minutes of rain (with no washing activity) it then diverts stormwater from the wash pad to mix with roof water for discharges to an unnamed tributary of the Mangati Stream. This is done to minimise the entrainment of contaminants in the stormwater prior to discharge to the Mangati Stream. The site also contains a truck refuelling facility.

J Swap holds water discharge permit **10085-1** to discharge stormwater from a transport depot into an unnamed tributary of the Mangati Stream. This consent contains special consent conditions as given in section 1.2., as well as five extra conditions that deal with site development and the provision of stormwater system designs and as built plans. A copy of this permit is attached to this report in Appendix I.

5.2 Results

5.2.1 Inspections

Three routine inspections were conducted at the site during the monitoring period, on 17 October 2022, 11 May, and 28 June 2023.

The site was found clean, tidy and well maintained. It was rated as compliant at the time of the three inspections. The stormwater drains had drain socks in place. The truck wash area was clean and tidy. The

water was captured within for disposal to trade waste. No offensive or objectionable odour was detected onsite

5.2.2 Results of discharge monitoring

Treated stormwater is discharged to the Mangati Stream in two places. Roof water combined with stormwater from the truck wash area discharges directly to the piped unnamed tributary of Mangati Stream (site STW001151) whilst waters from the other areas of the site are directed to a wetland constructed on top of the piped tributary. The wetland discharges via two floating decanters and a riser directly into the piped tributary (site STW002089). The consent limits apply to the STW002089 discharge.

The results of discharge monitoring for combined roof stormwater discharge are given in Table 6. The wetland discharge was not sampled as there was no flow at the time of the sampling.

Table 6 J Swap roof stormwater sampling results, site STW001151

Parameter	Unit	27 June 2023	Consent limits for site STW002089
Temperature	°C	9.7	-
pH	pH	-	6.0 – 9.0
Conductivity	mS/m	-	-
Suspended solids	g/m ³	-	100
Turbidity	FNU	-	-
CBOD ₅	g O ₂ /m ³	13.9	5
TBOD	g O ₂ /m ³	1.5	-
NH ₃	g/m ³	-	0.025*
NH ₄	g/m ³	-	-
Total hydrocarbons	g/m ³	-	15^

* NH₃ limits apply to instream only (not discharge); ^Hydrocarbons measured in place of oil & grease

The parameters measured were in the historical range. CBOD₅ was the highest measured at the site sampled, however consent limits do not apply to this discharge. There was no effect observed on the receiving environment and the results from the stream site were within historical range (see section 16.1 below).

5.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with J Swap's conditions in resource consents or provisions in Regional Plans.

5.4 Evaluation of performance

A tabular summary of J Swap's compliance record for the year under review is set out in Table 7.

Table 7 Summary of performance for J Swap consent 10085-1

Purpose: <i>To discharge stormwater from a transport depot into an unnamed tributary of the Mangati Stream</i>		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adopt best practice	Inspections	Yes
2. Limit on catchment area	Inspections	Yes
3. Stormwater to be treated	Inspections/sampling	Yes
4. Limit on discharge constituents	Sampling	Yes
5. Maintain safe access to the sampling point	Inspections/sampling	Yes
6. Limit on effects	Sampling	Yes
7. Submit final stage one stormwater plans	Documents received	Yes
8. Construction as per plans	Construction completed	Yes
9. Provide as built plans for stage one	Documents received	Yes
10. Provide plans for future stages prior to construction	No further development as yet	Yes
11. Provide as built plans for subsequent development	No further development as yet	Yes
12. Operate site as per management plan	Inspections	Yes
13. Provide contingency plan	Documents received	Yes
14. Notify Council prior to changes that could alter nature of discharge	Inspections and liaison with consent holder	Yes
15. Lapse of consent	Consent exercised	N/A
16. Review of consent	No further option for review prior to expiry	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High High
Overall assessment of administrative performance in respect of this consent		

N/A = not applicable or not assessed

During the year, J Swap Contractors Limited demonstrated a high level of environmental and administrative performance and compliance with their resource consent as defined in Appendix II.

6 McKechnie Aluminium Solutions Limited

6.1 Site description

McKechnie Aluminium Solutions Limited (MCK) operates a metal melting and extrusion plant that used to process copper, brass (copper/zinc) and aluminium. The copper and brass divisions have closed and the equipment has been removed from the site. The MCK manufacturing plant extends across the boundary between the Mangaone and Mangati catchments (Figure 7). Drainage from the eastern side of the site (aluminium processing areas) is into the Mangati Stream, whilst drainage from the western side of the site (historically copper and brass processing and now aluminium scrap storage and sorting) is to the eastern headwaters of the Mangaone Stream.

Stormwater from the eastern side of the plant flows into the Bell Block industrial drain through an underground system at two points along Paraite Road, one adjacent to (east of) the plant and one north of MCK's aluminium extrusion building. Cooling water is discharged from cooling of a press coil and heat treatment electrodes at the northern point.

About 2.7 ha of the site is under roof, comprising the old brass and copper processing buildings and the aluminium foundries, extrusion and finishing mills, and administration and utilities buildings. In the rest of catchment there are bunded areas for storage of chemicals and oils, oil/water separators, wastewater holding tanks and an open aluminium scrap yard. The majority of the aluminium sorting and storage is now done under cover in the Mangaone Stream catchment. Wastewater is sent to sewer, after pH neutralisation.



Figure 7 Aerial view of MCK site with the location of the associated discharges

Since regular inspection by the Council began in 1982, MCK Metals, the former owner of the site, instituted a series of progressive upgrades of waste containment, treatment and disposal facilities, including:

- the construction of a wastewater neutralisation plant;
- cessation of soakage trenches for disposal of wastewater;
- construction of bunds around chemical storage areas;
- diversion of effluent streams to sewer;
- changes in solid waste management practice;
- the use of a mechanical sweeper for the cleaning of the scrap sorting yards; and
- the installation of baghouses in the brass and copper and aluminium foundries, thus reducing aerial deposition from the site.

A suite of contingency plans are in place in case of spillage. MCK operates an Environmental Management System, and specific contingency plans are included as individual Works Procedures within the McKechnie Aluminium Solutions Ltd Management System-Environmental Manual. All new work procedures that have an environmental aspect are incorporated into the documented system. The strengths of this new integrated system are that responsibilities are clearly defined, and that the whole system is reviewed regularly.

MCK holds water discharge permit **3139-3** to cover the discharge of stormwater (including cooling water) from an industrial site into an unnamed tributary of the Mangati Stream. This consent contains the standard special conditions as given in Section 1.2. The permit is attached to this report in Appendix I.

In addition to 3139-3, water discharge permit **1857-6** is held to discharge stormwater from the western part of the industrial site, adjacent to Henwood Road, to a tributary of the Mangaone Stream in the Waiwhakaiho catchment. McKechnie also holds air discharge consent **4034-3** to provide for the discharge of emissions into the air from extrusion and re-melting of aluminium and associated activities. The monitoring of these consents is discussed in a separate report.

6.2 Results

6.2.1 Inspections

Three routine inspections were conducted at the site during the monitoring period, on 18 October 2022, 11 May, and 28 June 2023.

At the time of the inspections, the site was found clean, tidy and well maintained. It was rated as compliant on the three occasions. Drain screens were in place on the stormwater drains, and looked to be working efficiently. All of the oil and chemical areas were tidy and well maintained. Spill kits were located in the relevant areas. The empty drum area was also tidy and well organised, but was busy with empty pallets sitting ready for collection. During the October and May inspections, it was noted that minor diesel spills had occurred, likely due to a leaky hose. To minimise the spread of potential leaks by the diesel tank, a concrete bund was built and completed for the June inspection.

6.2.2 Results of discharge monitoring

MCK's eastern stormwater is monitored where it joins the Paraiti Road stormwater drain, next to the plant entrance (site STW001014). The northern stormwater drain is monitored at a manhole within the plant (site STW001028).

Both sites were visited twice during wet weather surveys. The results from discharge monitoring at both sites are given in Table 8 and Table 9.

Table 8 MCK Paraite Road stormwater sampling results, site STW001014

Parameter	Unit	17 November 2022	27 June 2023	Consent limits
Temperature	°C	19.0	13.1	-
pH	pH	6.9	7.0	6.0 – 9.0
Conductivity	mS/m	1.8	4.9	-
Suspended solids	g/m ³	6	181	100
Turbidity	FNU	3.5	44	-
Total hydrocarbons	g/m ³	< 0.7	< 0.7	15*
Metals (acid soluble)				
Aluminium	g/m ³	0.27	1.28	-
Copper	g/m ³	0.034	0.094	-
Lead	g/m ³	0.003	0.018	-
Zinc	g/m ³	0.27	0.53	-
Metals (dissolved)				
Copper	g/m ³	0.0190	0.029	-
Zinc	g/m ³	0.24	0.188	-

*Hydrocarbons measured in place of oil & grease

Table 9 MCK onsite stormwater sampling results, site STW001028

Parameter	Unit	17 November 2022	27 June 2023	Consent limits
Temperature	°C	18.5	13.8	-
pH	pH	6.6	6.8	6.0 – 9.0
Conductivity	mS/m	0.6	1.8	-
Suspended solids	g/m ³	3	< 10	100
Turbidity	FNU	1.37	2.8	-
Total hydrocarbons	g/m ³	< 0.7	< 0.7	15*
Metals (acid soluble)				
Aluminium	g/m ³	0.13	< 0.06	-
Copper	g/m ³	0.024	0.033	-
Zinc	g/m ³	0.36	0.83	-
Metals (dissolved)				
Copper	g/m ³	0.0090	0.0185	-
Zinc	g/m ³	0.35	0.82	-

*Hydrocarbons measured in place of oil & grease

The samples complied with limits on the pH range and oil and grease. The suspended solids concentration exceeded the consent limits in June 2023 at the discharge STW001014. A letter requesting explanation was sent. An explanation was received and as a result of this non-compliance, MCK has increased the cleaning frequency of the stormwater sieves and the yard sweeping activities.

Copper, lead and zinc levels are not specified in consent conditions, however these parameters are monitored because they are likely present on site, and the possibility exists of them becoming entrained within the discharge. At the discharge STW001014 in June 2023, all the concentrations of the acid soluble metals were the highest measured since May 2018. The concentration of dissolved zinc was also the highest measured at the discharge STW001028 since May 2018.

6.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with J Swap's conditions in resource consents or provisions in Regional Plans.

6.4 Evaluation of performance

A tabular summary of MCK's compliance record for the year under review is set out in Table 10.

Table 10 Summary of performance of MCK consent 3139-3

Purpose: To discharge stormwater (including cooling water) from an industrial site		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects	Inspections and discussion with consent holder	Yes
2. Consent to be exercised in accordance with application information	Inspections and discussion with consent holder	Yes
3. Limit on stormwater catchment	Inspections	Yes
4. Discharge cannot cause specified adverse effects beyond mixing zone	Observations and receiving water sampling	Yes
5. Limits on chemical composition of discharge	Discharge sampling	No one SS exceedance
6. Maintenance of a contingency plan	Updated plan received October 2022	Yes
7. Maintenance of stormwater management plan	Plan received November 2022	Yes
8. Adherence to stormwater management plan	Observations and discussions at inspections	Yes
9. Provision for consent to lapse if not exercised	Consent exercised	N/A
10. Optional review provision re environmental effects	No further opportunity for review prior to expiry	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 or not assessed

During the year, McKechnie Aluminium Solutions Limited demonstrated a good level of environmental and compliance with their resource consent and a high level of administrative performance as defined in Appendix II.

7 New Plymouth District Council

7.1 Site description

The roads served by the main Bell Block industrial drainage system occupy a significant stormwater catchment area of 27.5 ha. This system also serves as a conduit for the carriage of the stormwater from the industrial sites in this area. When the application for the discharge consent was lodged, NPDC stated that 'NPDC has no physical control over accidental spills or deliberate disposal of contaminants into the stormwater system'.

The NPDC stormwater drainage system had three main discharge points; into the Mangati Stream at the bottom of De Havilland Drive West, into the Mangati Stream at the bottom of Connett Road West, and the industrial drain outlet into the unnamed tributary at the rear of the Mainland site.

At the time of the consent renewal in 2002, routine physicochemical monitoring of the discharge had shown that the discharge occasionally contained high levels of suspended solids, and generally contained elevated levels of ammoniacal nitrogen, copper and zinc. Results of biomonitoring in the receiving water had shown that although the quality of discharges from the industrial area was improving, the Mangati Stream continued to be severely impacted below the industrial area.

In order to try to mitigate the effects of the quality of the stormwater carried by the NPDC pipework, during the 2002-2003 monitoring period NPDC redesigned the way in which stormwater was directed to the stream from the Connett Road and Paraite Road areas. A constructed wetland was put in place with the intention of both upgrading the quality of water discharged to the Mangati Stream, and providing a mechanism for containment of any spills or contaminants from the industrial area. The broad scope for this project was to develop an integrated water and land management system for the middle Mangati catchment in which:

- Stormwater from industrial areas is captured and passed through a constructed wetland for trapping of litter, sediment, hydrocarbons (and chemical contaminants to the extent that this is feasible) before being discharged to the stream.
- Industrial land uses are physically and hydrologically isolated from the stream by the development of a riparian reserve.
- A riparian reserve providing public access, a utilities corridor and machine access for stream maintenance purposes is provided.
- Flood detention structures and ponding areas are developed as required and integrated into the riparian reserve development.

Construction of the four-pond system was completed in the 2002-2003 monitoring year.

The plans submitted to the Council (Figure 8) indicated that under light rainfall conditions, the stormwater flows under Connett Road, and passes through a downstream defender pollutant entrapment device installed in the 300 mm pipeline in Connett Road, before entering pond 1 adjacent to Connett Road and the Mangati Stream (STW001055). The water from pond 1 flows through pond 2 and into pond 3 from which it then discharges into the Mangati Stream (STW002056). When there is higher flow from moderate rainfall, stormwater will also discharge via the industrial drain outlet (STW001026) and unnamed tributary into pond 4, which then flows into pond 3. There is a provision for pond 4 to discharge into the Mangati Stream (STW002055) when the water level in the pond increases to a certain point. There is also a drainage channel from the unnamed tributary to the Mangati Stream (MGT000503) to allow the ponds to be bypassed under heavy rainfall conditions, when it was expected that the level of contaminants in the stormwater would be at their lowest due to the high rate of dilution.

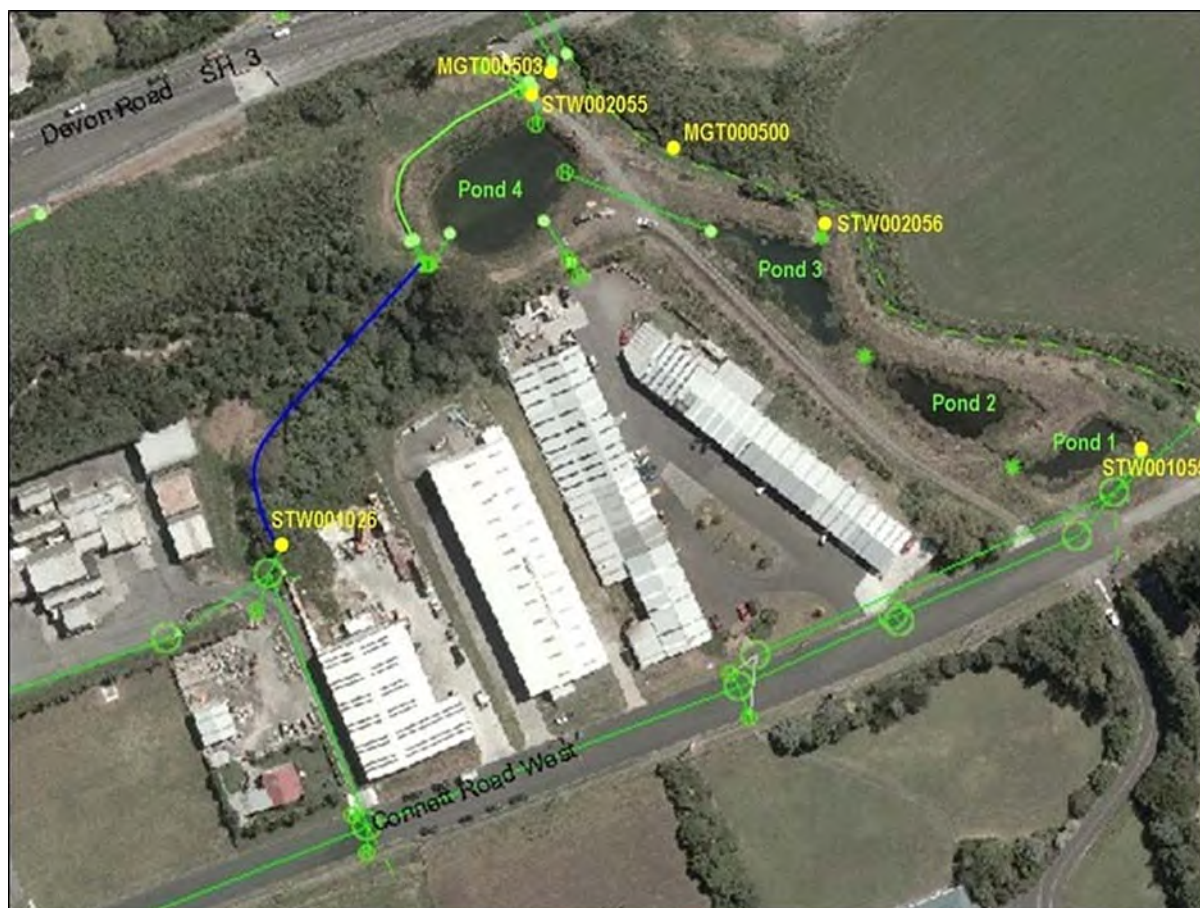


Figure 8 NPDC stormwater reticulation system and sampling points

More recently, the eastern side of the Mangati catchment has been developed along De Havilland Drive and Connett Road. The De Havilland Drive sites generally discharge to the Mangati catchment via the stormwater network and currently there is no treatment infrastructure in this section of the network. The eastern Connett Road area discharges to land via rain cells buried under the grass verges with a 150 mm overflow pipe discharging to the stream. In heavy rain events further overflow is provided by grass swales on the road verge.

NPDC holds permit **4302-2** to cover the discharge of up to 5,200 L/s of stormwater from industrial sealed areas and roofs. The consent has five conditions, which cover adoption of best practice to prevent or minimize adverse effect on the receiving environment, requirement for management plan, prevention and mitigation of any erosion, and review of conditions. The permit is attached to this report in Appendix I.

7.2 Results

7.2.1 Inspections

Four routine inspections were conducted at the discharge points during the monitoring period, on 18 October 2022, 27 January, 11 May, and 28 June 2023.

No erosion of the banks was noted. The assessed conditions were compliant at the time of the inspections. The ponds appeared to be running clean and clear. On the October 2022 inspection, some hydrocarbon residue was observed. This is a result from a hydrocarbon spill that happened in July 2022 (discussed in section 10.3 below). During the January 2023 inspection, it was noticed that recent work to remove vegetation from pond 4 has been undertaken to remove oil following the spill. It was also observed that a lot of vegetation in ponds 1, 2, and 3 had died as a result of the spill.

7.2.2 Results of stormwater discharge monitoring

Stormwater is discharged to the Mangati Stream from the NPDC treatment wetlands, and from at various points from roads running through the industrial area. The results of monitoring in the Mangati Stream itself are reported in section 16.1.

Stormwater that is discharged to the Mangati Stream from roads running through the industrial area is monitored at three points, De Havilland Drive West, Connett Road West, and the NPDC industrial drain.

Two NPDC stormwater drains terminate at the ponds system. Site STW001055 discharges into Pond 1, while STW001051 discharges directly to Pond 4.

The NPDC wetlands system has two locations discharging treated stormwater to the Mangati Stream. Pond 4 discharges at site STW002055, while pond 3 is at site STW002056.

7.2.2.1 De Havilland Drive West

The De Havilland Drive stormwater system discharges directly into the Mangati Stream (site STW001054). It has stormwater components from several small industrial sites, as well as part of Tegel Foods Limited's (Tegel's) poultry processing plant on the southern side of the road, Ireland Roading and Construction Limited's depot and MPC Kinetic Well Services workshop on the northern side of the road. The site was visited three times during the monitoring period during wet weather. Results of the sampling are displayed in Table 11.

Table 11 NPDC de Havilland Drive West stormwater sampling results, site STW001054

Parameter	Unit	17 November 2022	27 March 2023	27 June 2023	RFWP Guideline
Temperature	°C	18.3	18.6	13.1	-
pH	pH	6.7	7.1	6.9	6.0 – 9.0
Conductivity	mS/m	6.7	41.9	18.3	-
Suspended solids	g/m ³	20	11	7	100
Turbidity	FNU	13.8	7.7	6.5 F	-
TBOD ₅	g O ₂ /m ³	9	22	1.3	-
NH ₃	g/m ³	0.00023	0.00116	0.00018	-
NH ₄	g/m ³	0.121	0.27	0.088	-
DRP	g/m ³	0.037	0.179	< 0.004	-
Total hydrocarbons	g/m ³	< 0.7	pass [^]	< 0.7	15*

*Hydrocarbons were measured in place of oil & grease, ^ visually assessed

The De Havilland Drive catchment area typically discharges high quality stormwater, due to its relatively small size and fewer inputs from industrial sites. This is shown in the low suspended solids concentrations and hydrocarbon results which are frequently below the limits of detection.

7.2.2.2 Connett Road West

The Connett Road stormwater system captures runoff from the remaining catchment area, which includes the majority of consented discharges as well as sites operating under permitted activity rules.

Connett Road discharges to NPDC wetlands system

Stormwater and runoff from the Connett Road carriageway discharges into pond 1 of the NPDC treatment wetland (site STW001055) as well as pond 4 (STW001051).

Pond 1 and pond 4 influents stormwater were sampled once on different days during the monitoring period (Table 12).

Table 12 NPDC pond 1 and 4 influent stormwater sampling results, site STW001051 and STW001055

Parameter	Unit	STW001051 17 November 2022	STW001055 27 June 2023	RFWP Guideline
Temperature	°C	17.7	12.1	-
pH	pH	6.7	7.0	6.0 – 9.0
Conductivity	mS/m	5.1	6.4	-
Turbidity	FNU	6.6	8.7	-
TBOD ₅	g O ₂ /m ³	-	1.5	-
Total hydrocarbons	g/m ³	pass [^]	< 0.7	15*
Nutrients				
NH ₃	g/m ³	-	0.00029	-
NH ₄	g/m ³	-	0.130	-
DRP	g/m ³	-	0.006	-
Metals (acid soluble)				
Copper	g/m ³	-	< 0.010	-
Zinc	g/m ³	-	0.15	-
Metals (dissolved)				
Copper	g/m ³	-	0.0050	-
Zinc	g/m ³	-	0.100	-

*Hydrocarbons measured in place of oil & grease; ^ visually assessed

BOD and conductivity results for the pond 1 influent indicate that the water entering the wetlands system was of sufficiently high quality at the time of sampling. There were low levels of dissolved metals detected in the influent, which are attributed to the various industries and activities that occur within this area.

Connett Road West stormwater

Samples are also collected from various locations in the reticulation system to assess the performance of individual consent holders. In total, four sites are routinely visited and samples are collected if the stormwater system is flowing:

- The NPDC middle Connett Road site (STW001010) receives stormwater discharges from the MCK, Tegel Feedmill, and TIL sites.
- The NPDC stormwater Central Drain site (STW001011) receives stormwater discharges from Nexans, Schlumberger, Tegel Feedmill, and Tegel Processing sites.
- The NPDC stormwater upper Connett Road site (STW001012) receives stormwater discharges from Barton, OMV, and neighbouring properties.

- The NPDC stormwater lower Connett Road site (STW001052) acts as an overflow to the industrial drain, and carries the combined discharges from the sites listed above as well as runoff from nearby road ways.

These were either unable to be accessed safely, or were not discharging at the time of the visit during the 2022-2023 monitoring period. These sites will be relocated to more accessible location or removed from the monitoring programme for the 2023-2024 monitoring year.

NPDC industrial drain

Along with the De Havilland Drive and Connett Road stormwater systems, a third reticulation point discharges to the Mangati Stream via an industrial drain situated to the rear of the Mainland Products site. This drain encompasses the northern perimeter of the Mangati industrial zone. The sampling site (STW001026) at this point includes discharges from the former Halliburton site (now operated by Egmont Honey), Mainland Products, a range of smaller permitted activity sites, and also high flow inputs from the NPDC Connett Road West storm pipe. This site was sampled on three occasions and the results are presented in Table 13. The industrial drain flows into the Mangati at sampling site MGT000503. The results are presented in Table 14.

Table 13 NPDC pond 1 outlet stormwater sampling results, site STW001026

Parameter	Unit	17 November 2022	27 March 2023	27 June 2023	RFWP Guideline
Temperature	°C	18.7	16.8	12.9	-
pH	pH	6.8	7.7	6.9	6.0 – 9.0
Conductivity	mS/m	3.8	17.3	7.5	-
Turbidity	FNU	17.6	5.2	17.9	-
TBOD ₅	g O ₂ /m ³	7	0.8	11	-
Total hydrocarbons	g/m ³	< 0.7	pass [^]	< 0.7	15*
Nutrients					
NH ₃	g/m ³	< 0.000003	0.0025	0.00022	-
NH ₄	g/m ³	< 0.010	0.162	0.123	-
DRP	g/m ³	< 0.004	< 0.004	0.005	-
Metals (acid soluble)					
Copper	g/m ³	0.026	< 0.010	0.028	-
Zinc	g/m ³	0.26	0.08	0.30	-
Metals (dissolved)					
Copper	g/m ³	0.0121	0.0040	0.0127	
Zinc	g/m ³	0.192	0.072	0.23	-

*Hydrocarbons measured in place of oil & grease; ^ visually assessed

Table 14 NPDC industrial drain to Mangati Stream, site MGT000503

Parameter	Unit	17 November 2022	27 June 2023	RFWP Guideline
Temperature	°C	16.6	13.4	-
pH	pH	6.4	6.3	6.0 – 9.0
Conductivity	mS/m	11.2	17.1	-
Suspended solids	g/m ³	6	< 3	100
Turbidity	FNU	0.65	0.34	-
COD	g O ₂ /m ³	17	< 6	-
TBOD ₅	g O ₂ /m ³	1.3	0.6	-
Total hydrocarbons	g/m ³	< 0.7	< 0.7	15*
Nutrients				
NH ₃	g/m ³	0.000010	< 0.000010	-
NH ₄	g/m ³	< 0.010	< 0.010	-
DRP	g/m ³	< 0.004	< 0.004	-
Metals (acid soluble)				
Copper	g/m ³	< 0.010	< 0.010	-
Zinc	g/m ³	< 0.02	< 0.02	-
Metals (dissolved)				
Copper	g/m ³	0.0017	0.0011	-
Zinc	g/m ³	0.0136	0.022	-

*Hydrocarbons measured in place of oil & grease

The results from the discharge were within the historical range and below the RFWP guideline values. The parameters measured in the stream were within the lower range of the historical dataset, showing a good water quality instream.

7.2.2.3 NPDC wetlands discharges to Mangati Stream

Water from the NPDC wetland pond 3 discharges into the Mangati Stream over a v-notch weir (STW002056). When there is higher flow from moderate rainfall, stormwater will also discharge into pond 4, which then flows into pond 3. There is also provision for pond 4 to discharge directly into the Mangati Stream (STW002055) when the water level in the pond increases to a certain height.

Samples were collected from the weir at pond 3 on three occasions. The results are displayed in Table 15. The overflow pipe from pond 4 to the Mangati Stream was not discharging during these visits.

Table 15 NPDC wetland pond 3 discharge to Mangati Stream, site STW002056

Parameter	Unit	17 November 2022	27 March 2023	27 June 2023	RFWP Guideline
Temperature	°C	18.6	18.4	11.3	-
pH	pH	6.6	7.1	6.5	6.0 – 9.0
Conductivity	mS/m	15.1	11.7	7.4	-
Suspended solids	g/m ³	15	11	5	100

Parameter	Unit	17 November 2022	27 March 2023	27 June 2023	RFWP Guideline
Turbidity	FNU	10.4	4.8	4.6	-
COD	g O ₂ /m ³	26	13	7	-
TBOD ₅	g O ₂ /m ³	3.5	1.7	1.8	-
Total hydrocarbons	g/m ³	< 0.7	pass^	< 0.7	15*
Nutrients					
NH ₃	g/m ³	0.00046	0.00117	0.000125	-
NH ₄	g/m ³	0.34	0.27	0.186	-
DRP	g/m ³	< 0.004	< 0.004	< 0.004	-
Metals (acid soluble)					
Aluminium	g/m ³	0.08	< 0.06	0.12	-
Copper	g/m ³	< 0.010	< 0.010	< 0.010	-
Lead	g/m ³	< 0.002	< 0.002	< 0.002	-
Zinc	g/m ³	0.09	0.08	0.10	-
Metals (dissolved)					
Copper	g/m ³	0.0029	0.0036	0.0036	-
Zinc	g/m ³	0.072	0.086	0.090	-

*Hydrocarbons measured in place of oil & grease; ^ visually assessed

The results from chemical monitoring of stormwater from the NPDC reticulation and treatment wetlands indicated that all parameters complied with RFWP limits. Historical and current activities within this stormwater catchment have resulted in elevated levels of dissolved metals in the discharge, however these concentrations were within expected ranges. Dissolved metals concentrations in this area continue to show fluctuating trends, with higher concentrations noted during the summer low flow period.

7.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with NPDC's conditions in resource consents or provisions in Regional Plans.

7.4 Evaluation of performance

A tabular summary of NPDC's compliance record for the year under review is set out in Table 16.

Table 16 Summary of performance for NPDC consent 4302-2

Purpose: To discharge up to 5,200 litres/second of stormwater from industrial sealed areas and roofs		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Consent to be exercised in accordance with application information	Inspections and discussion with consent holder	Yes

Purpose: To discharge up to 5,200 litres/second of stormwater from industrial sealed areas and roofs		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
2. Adoption of best practicable option to minimise effects	Inspections and discussion with consent holder	Yes
3. Provision of designs, specifications and operating procedures	Review of Council records	Yes
4. Prevention and mitigation of erosion	Inspections	Yes
5. Optional review provision re environmental effects	No further option for review prior to expiry	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, NPDC demonstrated a high level of environmental and administrative performance and compliance with their resource consent conditions as defined in Appendix II.

8 Nexans New Zealand Limited

8.1 Site description

The electric wire and cable manufacturing plant of Nexans New Zealand Limited (Nexans) was established on Paraite Road beside the railway line in 1967 (Figure 9). The plant produces for both domestic and export markets. This company was previously known as Olex New Zealand Ltd.

The site occupies an area of 6.7 ha, of which about 85% is developed. A large variety and volume of chemicals, some potentially toxic, are stored on the site. The majority are stored within buildings in areas where they can be contained if spilled.

Chemicals are stored outside the buildings in two bunded areas. In one area, phthalate esters and liquid plasticisers are stored in three 50,000 L tanks. In another area, copper wire drawing liquor is stored in a 12,000 L above ground tank which is bunded. A security fence surrounds areas vulnerable to vandalism. All bunded areas are fitted with liquid level alarms and stormwater from within one of these bunds is discharged to the stormwater drains after appropriate quality checks. The other bund is used to harvest rainwater which is then used for cooling water.



Figure 9 Aerial view of Nexans site, with the location of the associated discharge

Nexans also holds an air discharge consent to cover the minor discharges associated with the Curing Continuous Velocity process. This process involves the moulding of an insulating layer around a conductor at elevated temperatures in an inert nitrogen atmosphere. The discharge stream from this process has the condensates separated before the gas is released to atmosphere via a sparge nozzle above the factory roof.

The gas discharged is predominantly nitrogen, but contains alkanes at less than 0.5 %, and acetophenone (10 ppm). Acetophenone has a sweet orange blossom odour and is not expected to give rise to any adverse environmental effects.

There is a contingency plan in place in case of spillages, with a revised plan dated July 2018 being received and accepted by the Council. A comprehensive Environmental Management System has been put in place at the Nexans site, and a revised stormwater management plan was received in May 2016.

Nexans holds permit **4497-3** to discharge stormwater and cooling water from an electric wire and cable manufacturing site off Paraite Road, and air discharge permit **5417-2** to discharge emissions into the air from an electric wire and cable manufacturing plant and associated activities. Copies of both permits are attached to this report in Appendix I.

8.2 Results

8.2.1 Inspections

Two routine inspections were conducted at the site during the monitoring period, on 20 October 2022 and 11 May 2023.

The yard was clean and tidy. Stormwater drain socks were in place and unobstructed. A double skin diesel tank has been installed onsite, and it contains a pad with a small bunding for minor spills. All hazardous substance sheds were locked and well secured. The site was rated as compliant at the time of the inspections.

8.2.2 Results of discharge monitoring

Stormwater from the Nexans site discharges to the industrial stormwater drain underneath Connett Road at two points; the one from the main loading area on the western side of the plant is opposite the entrance to Mainland Products; the other, from the remainder of the site, is about 100 metres further down Connett Road. The uppermost monitoring point for the eastern catchment (STW001025) is unaffected by other discharges. There was no discharge occurring when the site was visited during the 2022-2023 monitoring year.

8.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with Nexan's conditions in resource consents or provisions in Regional Plans.

8.4 Evaluation of performance

A tabular summary of Nexans' compliance record for the year under review is set out in Table 17 and Table 18.

Table 17 Summary of performance for Nexans consent 4497-3

Purpose: To discharge stormwater and cooling water		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment	Inspections and discussion with consent holder	Yes
2. Limits stormwater catchment area	Inspections	Yes
3. Above ground hazardous substance storage to be bunded and not to drain directly to stormwater catchment	Inspections and discussion with consent holder	Yes
4. Limits on chemical composition of discharge	No discharge during sampling runs during monitoring period	N/A
5. Discharge cannot cause specified adverse effects beyond mixing zone	Receiving water and sediment sampling. Biomonitoring	Yes
6. Maintenance of a contingency plan for action to be taken to prevent spillage	Review of documents provided. Plan on file dated July 2018	Yes
7. Maintenance of stormwater management plan	Plan on file dated May 2016	Yes
8. Written notification required regarding changes to activities at the site	Inspections and discussion with consent holder	Yes
9. Provision for consent to lapse if not exercised	Consent has been exercised	N/A
10. Optional review provision re environmental effects and notifications of changes (S.C.9)	No further opportunity for review prior to expiry	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

Table 18 Summary of performance for Nexans consent 5417-2

Purpose: To discharge emissions to air		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects	Inspections and liaison with consent holder	Yes
2. Discharge not to give rise to offensive, objectionable or toxic dust or odour	Inspections	Yes
3. Control of emissions of CO, NO ₂ , PM ₁₀ and SO ₂	Not assessed during review period	N/A
4. Control on other emissions	Not assessed during review period	N/A
5. Consent holder to consult Council prior to making alterations to plant, processes or operations	Inspections and liaison with consent holder	Yes
6. Consent holder to maintain record of complaints	Not requested during review period	N/A
7. Report reviewing technological advances in the reduction and mitigation of emissions due in November each year	Report received November 2022	Yes
8. Optional review provision re environmental effects	No further option for review prior to expiry	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, Nexans New Zealand Limited demonstrated a high level of environmental and administrative performance and compliance with their resource consents as defined in Appendix II.

9 OMV New Zealand Limited / Nexans New Zealand Limited

9.1 Site description

OMV New Zealand Limited (OMV) managed a 1.08 ha site as a storage facility to support the offshore Maari Field (Figure 10), until 31 October 2022 when the consent was transferred to Nexans.

OMV used this site for the storage and dispatch of off-shore equipment between drilling campaigns. This equipment includes chemicals and drill pipes. The drill pipes are either new, prior to them being prepared for use, or unused pipes returned from the off-site drilling activities. There is no pipe washing, preparation, or reconditioning of used pipes carried out at the site. Any equipment returned from off-shore is washed off-shore if required, and is clean when it is returned to the site.

Chemicals, of limited quantities and classes, are stored either under cover in the warehouse buildings, or in bundled shipping containers in the yard, prior to dispatch.



Figure 10 Aerial view of OMV / Nexan yard, with the location of the associated discharge sampling point

Stormwater drains via a three-stage oil separator to the Bell Block industrial drainage system. Prior to OMV leasing the site, the entire property had been developed, with the site being roofed, tar-sealed or metalled.

A wash facility is situated on the southern side of the site, and an automatic diverter valve diverts the discharge of washings to sewer via an oil separator when the wash pad is in use. Stormwater from the washing area, when the wash pad is not in use, continues to be directed to the Mangati Stream via an older oil separator. The wash pad is now permanently diverted to sewer.

OMV holds water discharge permit 3913-3 to cover the discharge of stormwater from an industrial site into an unnamed tributary of the Mangati Stream. The consent contains the standard special consent conditions as given in section 1.2 with one modified condition that places a limit on the BOD concentration in the discharge. Resource consent 3913-3 was transferred to Nexans on 31 October 2022. A copy of this permit is attached to this report in Appendix I.

9.2 Results

9.2.1 Inspections

Two inspections were conducted during the monitoring period, on 20 October 2022 and 15 May 2023.

The site was occupied by OMV during the October 2022 inspection. The site was clean and tidy. The stormwater drains and sumps were clear, well maintained, and had no sign of contaminants. The quarantine area was empty and tidy. The site was rated as complaint at the time of the inspection.

Nexans occupied the site at the time of the May 2023 inspection. The stormwater drains had drain screens in place that were unobstructed. The site was compliant at the time of the inspection.

9.2.2 Results of receiving environment monitoring

The yard primary monitoring site is immediately below the oil separator that treats the site stormwater before it is discharged (IND002013). Samples were collected only once during the year as there was no flow when visited on the two other occasions. The results from chemical monitoring at this site are given in Table 19.

Table 19 OMV stormwater sampling results, site IND002013

Parameter	Unit	17 November 2022	Consent limits
Temperature	°C	19.7	-
pH	pH	9.1	6.0 – 9.0
Conductivity	mS/m	3.4	-
Suspended solids	g/m ³	720	100
Turbidity	FNU	161	-
COD	g O ₂ /m ³	126	
TBOD ₅	g O ₂ /m ³	6.2	16
Total hydrocarbons	g/m ³	< 0.7	15*
NH ₄	g/m ³	0.069	10

**Hydrocarbons measured in place of oil & grease*

The suspended solid concentration and pH exceeded the consent limit. An abatement notice was sent to Nexans. They informed Council that even though the consent was transferred to their name on 31 October 2022, their lease started on 1 December 2022. Further investigation found that the landowner had conducted maintenance concrete works in between the site being occupied by either OMV or Nexans, which may have resulted in this exceedance. This exceedance will not impact the environmental performance. The abatement notice was cancelled.

9.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with OMV/Nexan's conditions in resource consents or provisions in Regional Plans.

9.4 Evaluation of performance

A tabular summary of OMV and Nexans compliance record for the year under review is set out in Table 20.

Table 20 Summary of performance for OMV consent 3913-2

Purpose: To discharge stormwater from an industrial site into an unnamed tributary of the Mangati Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment	Inspections and discussion with consent holder	Yes
2. Limits stormwater catchment area	Inspections	Yes
3. Limits on chemical composition of discharge	Sampling	Yes
4. Clear and safe all-weather access point for discharge sampling to be maintained	Sampling	Yes
5. Discharge cannot cause specified adverse effects beyond mixing zone	Inspections and sampling	Yes
6. Maintenance of a site contingency plan	Updated plan received August 2019	Yes
7. Maintenance of stormwater management plan	Liaison with consent holder	Yes
8. Notification required regarding changes to activities at the site	Inspections and liaison with consent holder	N/A
9. Optional review provision re environmental effects	Next opportunity for review June 2026	Yes
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, OMV New Zealand Limited and Nexans New Zealand Limited demonstrated a high level of environmental performance and compliance with their resource consent and a high level of administrative performance as defined in Appendix II.

10 Schlumberger New Zealand Limited

10.1 Site description

Schlumberger New Zealand Limited (Schlumberger) provides services to the oil production industry, and stores a range of hazardous substances in enclosed areas of the site (Figure 11). Washwater containing drilling mud and occasionally oil residue from down-hole tools occurs onsite, and this water is discharged to the stormwater system following treatment in an onsite interceptor.

The wash area is housed within a building that also contains the paint, waste, oil, and chemical storage areas. The floors within this building all drain to a common 1.5 m³ capacity sealed sump. The liquid collected in this sump can either be removed by a contractor for appropriate off-site disposal, or be pumped to the stormwater drainage system via an oil separator, which removes the oily waste and suspended solids from the effluent stream.



Figure 11 Aerial view of Schlumberger site, with the location of the associated sampling sites

Late in the 2013-2014 year, Schlumberger acquired the MI Swaco New Zealand site, with consents being transferred to Schlumberger on 13 May 2014. This includes the operation of a Liquid Mud Plant (LMP) and a warehouse/storage facility.

Activities at the site involve the mixing of synthetic based muds to be used in hydrocarbon exploration, and storage of chemicals to be used in the mixing operations. The LMP comprises a series of tanks of up to 10.9 m in height that are used to mix up the drilling mud. Once mixed, the mud is tankered from the site. The LMP area is located outdoors and all stormwater and potential contaminants are captured and contained within the surrounding bunded area. All stormwater discharged from the bunded LMP area is treated via an interceptor.

The adjacent site contains a large outdoor laydown area and large warehouse/ workshop building. Sea transport containers containing flexitank bladders of synthetic fluid are stored in this laydown area pending the availability of storage space in the LMP area. The sea containers are transferred by swing-lift transporter to the bunded loading/unloading bay alongside LMP when the synthetic fluids are required for use.

The site is manned at all times when the mixing of chemicals occurs in the LMP, which minimises the potential of a spill occurring unnoticed. Sandbags and spill kits are also located on the site for use in the event of a spill to contain liquid chemicals and to place over stormwater drains to prevent discharge from the site.

Schlumberger holds discharge permit 6032-1 to discharge treated wash water and stormwater from a storage and maintenance premises for oil field exploration equipment into the Mangati Stream. The copy of the permit is attached to this report in Appendix I.

10.2 Results

10.2.1 Inspections

Two routine inspections were conducted at the site during the monitoring period, on 18 October 2022 and 11 May 2023.

The site, mud tank and wash down bay were found clean, tidy and well maintained. Spill kits were easily accessible by the mud tank. During the two inspections, the interceptor tanks had product sitting in them and were due to be emptied soon. All the inspected sumps and drains were clear and had no sign of contaminant. The site was rated as compliant at the time of the inspections.

10.2.2 Results of discharge monitoring

The site is graded such that the majority of the stormwater from the consented LMP and office complex area exits the site at the southwest corner. This is monitored at STW002071. The discharge flows through a stormwater pipe passing through the rest of the Schlumberger site (STW001056).

Samples were collected only once from STW001056 and once from STW002071 as there was no flow the second time it was visited. The results from chemical monitoring at both sites are given in Table 21.

Table 21 Schlumberger stormwater sampling results from 17 November 2022, sites STW001056 and STW002071

Parameter	Unit	STW001056	STW002071	Consent limits
Temperature	°C	19.6	19.1	-
pH	pH	6.8	6.9	6.0 – 9.0
Conductivity	mS/m	8.8	2.5	-
Suspended solids	g/m ³	33	6	100
Turbidity	FNU	10	2.0	-
COD	g O ₂ /m ³	35	1.5	-
Total hydrocarbons	g/m ³	< 0.7	< 0.7	15*
Nutrients				
NH ₃	g/m ³	0.00024	0.00022	0.025
NH ₄	g/m ³	0.096	0.070	-
Metals (acid soluble)				
Copper	g/m ³	< 0.010	< 0.010	-
Lead	g/m ³	0.003	< 0.002	-
Zinc	g/m ³	0.17	0.05	-

Parameter	Unit	STW001056	STW002071	Consent limits
Metals (dissolved)				
Copper	g/m ³	0.0054	0.0042	0.05
Zinc	g/m ³	0.115	0.033	0.65

**Hydrocarbons measured in place of oil & grease*

The results of sampling exhibited a high quality of the discharge from both parts of the plant. All results were within consented limits and expected ranges.

10.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with Schlumberger's conditions in resource consents or provisions in Regional Plans.

10.4 Evaluation of performance

A tabular summary of Schlumberger's compliance record for the year under review is set out in Table 22.

Table 22 Summary of performance for Schlumberger consent 6032-1

Purpose: To discharge treated wash water and stormwater from a storage and maintenance premises for oil field exploration equipment into the Mangati Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Consent to be exercised in accordance with information submitted at application	Inspections and discussion with consent holder	Yes
2. Council to be advised in writing with assessment of effects prior to changes	Inspections and discussion with consent holder. No further changes	Yes
3. Maintenance of plan for wash water treatment system	Updated plan received February 2023	Yes
4. Maintenance of stormwater management plan	Updated plan received February 2023	Yes
5. Limits on chemical composition of discharge	Sampling	Yes
6. Discharge cannot cause specified adverse effects beyond mixing zone	Receiving water sampling	Yes
7. Maintenance of a contingency plan for action to be taken to prevent spillage	Updated plan received February 2023	Yes
8. Optional review provision re environmental effects and notifications of changes	Consent expired June 2020	N/A
9. Prohibition of wastes containing degreasers, solvents or surfactants	Inspection and discussion with consent holder. Observations at sampling	Yes

Purpose: *To discharge treated wash water and stormwater from a storage and maintenance premises for oil field exploration equipment into the Mangati Stream*

Condition requirement	Means of monitoring during period under review	Compliance achieved?
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, Schlumberger New Zealand Limited demonstrated a high level of environmental performance and of administrative performance as defined in Appendix II.

11 Tasman Oil Tools Limited

11.1 Site description

Tasman Oil Tools Limited (Tasman Tools) operates a 1.4 ha yard on De Havilland Drive for storage and maintenance of drill pipe, down-hole tools and other miscellaneous equipment used in the oil industry (Figure 12). New casing and drill pipe is cleaned to remove protective grease, which until recently contained some copper and zinc, and a high proportion of lead. Historically the wash water discharged to land and then flowed overland to an interceptor pit. Tasman Tools' yard is immediately upslope of the pipe yard of Greymouth Petroleum, where a similar activity is undertaken.

Washing is now undertaken in a roofed wash pad and directed to a three-stage oil separator and then to trade waste. Occasionally larger items are washed outdoors, however this requires notification to the Council prior to commencement.

Stormwater from the site is collected in open perimeter drains, treated in a three stage interceptor and settling pond, and then directed to the Mangati Stream.



Figure 12 Aerial view of Tasman Tools site, with the location of the associated discharge sampling point

The discharge from the settling pond enters a common open stormwater drain that also receives stormwater from the adjacent properties of First Gas and Greymouth Petroleum. The drain reaches the Mangati Stream about 250 m below De Havilland Drive.

Improvements made at the site include the construction of a roofed wash pad, the installation of a three-stage oil separator to collect and treat equipment washings, the connection of the wash pad to trade waste sewer, the installation of a large shipping container to house oils and chemicals, and the installation of a paint locker.

Larger items are washed outside on a purpose built pad where the wash water is captured and directed to trade waste.

Due to elevated levels of copper being found in the stormwater discharged from the site, in April 2002 the Council investigated contaminant levels in soils on the site with samples taken from current and historical pipe storage areas and the gravelled pipe washing area. Although elevated levels of various metals were found in the samples, the concentrations met the relevant industrial guideline levels. Stormwater sampling continued to indicate that there was a significant source of heavy metals on site due to historical activities and two possible conclusions were identified:

- A 'hot spot' containing a higher concentration of heavy metals was missed during the soil sampling exercise.
- Because the original source of heavy metals was from an historical activity that occurred in excess of five years ago, the loose surface soils containing the major portion of the heavy metals have been washed from the active areas of the site and had been retained in the settlement pond.

It was considered at that time, that the second conclusion was the more probable scenario and the accumulated sediment and sludge was removed from the settlement pond. Council has continued to monitor for the presence of copper, lead and zinc in the site stormwater discharge.

A contingency plan for spillage response is in place for the site, with the most recent document received in February 2023.

Tasman Oil holds water discharge permit **4812-2.1** to cover the discharge up to 112 L/s of stormwater including wash down water from a storage and maintenance yard for oil field drilling equipment into an unnamed tributary of the Mangati Stream. This consent contains the standard special conditions and four additional special conditions. The permit is attached to this report in Appendix I.

11.2 Results

11.2.1 Inspections

Three routine inspections were conducted at the site during the monitoring period, on 31 October 2022, 27 January and 27 June 2023.

During the October 2022 inspection, the site was found reasonably tidy. The ring drain appeared to be working efficiently to capture suspended solids. A hydrocarbon sheen was observed in the stormwater pond, potentially originating from the wash pad or gravel access area, but no effect was noted below the discharge pipe.

During the January 2023 inspection, two issues were noted that needed addressing; a 200 L drum silicon fluid was not stored properly in a bunded area, and sand blasting had occurred in the yard with no attempt to limit or contain the blast material or clean it up.

The June 2023 inspection was carried out following an overnight rain event. Sediment traps in the ring drain were full and working well to capture sediments. The hydrocarbon interceptor appeared turbid. It was observed that following maintenance work on the pipe rack wash pad, wash water was bypassing the hydrocarbon interceptors and flowing to the stormwater drain in the middle of the un-metalled road. This was addressed to make sure that the wash water will be reconnected to the interceptor. The site was rated as compliant at the time of the three inspections.

11.2.2 Results of discharge monitoring

The primary monitoring site is at the discharge point from Tasman Tools' skimmer pit (site STW001057). There was one discharge sample taken from the site during the 2022-2023 monitoring period, with the results presented in Table 23.

Table 23 Tasman Oil Tools stormwater sampling results, site STW001057

Parameter	Unit	27 June 2023	Consent limits
Temperature	°C	10.0	-
pH	pH	7.7	6.0 – 9.0
Conductivity	mS/m	7.2	-
Suspended solids	g/m ³	39	100
Turbidity	FNU	31	-
Total hydrocarbons	g/m ³	< 4	15*
Nutrients			
NH ₃	g/m ³	0.00011	-
NH ₄	g/m ³	0.011	-
Metals (acid soluble)			
Copper	g/m ³	0.055	-
Lead	g/m ³	0.015	-
Zinc	g/m ³	0.08	-
Metals (dissolved)			
Copper	g/m ³	0.0122	0.05
Zinc	g/m ³	0.0074	0.65

*Hydrocarbons measured in place of oil & grease

The discharge sample results were compliant with the conditions set in the resource consent. The dissolved copper concentration was within the historical range. Acid soluble lead, acid soluble zinc and dissolved zinc concentrations were in the lower range of the historical records, and are decreasing since 2018.

11.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with Tasman Tool's conditions in resource consents or provisions in Regional Plans.

11.4 Evaluation of performance

A tabular summary of Tasman Tools' compliance record for the year under review is set out in Table 24.

Table 24 Summary of performance for Tasman Tools consent 4812-2

Purpose: To discharge wash water and stormwater		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Consent to be exercised in accordance with information submitted in application, and conditions of consent	Inspections and discussion with consent holder	Yes
2. Yard washing records to be kept and provided to Council on request	Not requested during period under review	N/A
3. Council to be notified if yard washing more than 8 hours in any 7 days	No washing in the yard undertaken during monitoring period	Yes
4. Council to be advised in writing with assessment of effects prior to changes	Inspections and liaison with consent holder. No changes	Yes
5. Stormwater treatment system to be maintained satisfactorily	Inspections and liaison with consent holder	Yes
6. Limits on chemical composition of discharge	Sampling	Yes
7. Discharge cannot cause specified adverse effects beyond mixing zone	Receiving water sampling	Yes
8. Maintenance of a contingency plan for action to be taken to prevent spillage	Plan last updated in August 2023	Yes
9. Optional review provision re environmental effects and notifications of changes	No further provision for review	N/A
10. Prohibition of wastes containing degreasers, solvents or surfactants	Inspections and discussion with consent holder. Observations at sampling	Yes
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, Tasman Oil Tools Limited demonstrated a high level of environmental and administrative performance and compliance with their resource consent as defined in Appendix II.

12 Tegel Foods Limited – Feedmill

12.1 Site description

The New Plymouth feedmill of Tegel Foods Limited (Tegel) has been in operation on their 1.6 ha site on Paraite Road since 1968 (Figure 13). Raw grain and supplements are processed into feed for central North Island divisions of the Company.

Raw materials are transported to the site by truck in bagged and bulk form, the largest component being various types of grain. Other raw materials are soft goods or feed supplements such as lime, meat and bone meals, broll, vitamins, and minerals. Liquids such as tallow, canola oil, or molasses are also used. The grain is ground and the meal is mixed and blended with various supplements and liquids according to requirements. The feed is then pelletized and bagged or stored in bulk, before being loaded onto trucks for dispatch.

Storage tanks for tallow (40 tonne), molasses (30 tonne), and canola oil (40 tonne) feed supplements are situated outside the mill. The "alimet" tank, in which the canola oil is stored, is situated within a bund. There is no bund around the tallow and molasses tanks owing to the high viscosity of the liquids. A dangerous goods store holds miscellaneous liquids such as weed sprays, paint and oils.

A grain storage facility is now operated by Tegel at a second site on Paraite Road opposite the original feedmill site. The grain is transported across the road to the feedmill as required. This site currently operates under permitted activity rules.



Figure 13 Aerial view of Tegel feedmill site, with the location of the associated discharge sampling point

Tegel hold water discharge permit 2335-4 to discharge stormwater from a stock/poultry feed manufacturing site to the NPDC stormwater drainage network; and air discharge permit 4038-6 to cover the discharge of emissions into the air from the milling and blending of grain and/or animal meals together with associated activities. Copies of both permits are attached to this report in Appendix I.

12.2 Results

12.2.1 Inspections

Three routine inspections were conducted during the monitoring period, on 31 October 2022, 27 January, and 27 June 2023.

During the October inspection, the site was found clean, tidy and well maintained. No issues were noted and the site was rated as compliant.

During the January inspection, the stormwater drain appeared clear with little material in them. However, debris and product was accumulating in building corners, against pallets and other obstacles. The area around the silos had been recently water blasted but had not been cleaned up afterwards. The amount of product accumulated in the area was likely to leach contaminants into the stormwater system. The machine operator in the shed was scraping the floor so that no product would be tracked into the yard. The site was found compliant at the time of the inspection.

During the June inspection, the yard was found not to be maintained well, with debris and grain accumulating around the corners and in the cracks between the concrete. The discharge sample taken by the Council at the time of the inspection was found above the consent limit (see results in section 12.2.2 below). The Council was informed that Blackstocks Roadsweeping had stopped servicing the yard and drain wardens. Two replacements were being considered by Tegel feedmill. No objectionable odour associated with the feedmill was detected on or off-site.

12.2.2 Results of discharge monitoring

Stormwater from the Tegel feedmill site discharges to the NPDC network and then to the NPDC wetlands. The stormwater enters the networks at two points; one is on Paraite Road and the other is via the central drain. The primary monitoring site is at a manhole over the stormwater drain at the northern entrance to the mill from Paraite Road (site STW001015). The site is not influenced by discharges from other sources.

The site was sampled once during the monitoring period, the results are given in Table 25. Most of the parameters were within consented limits and historical ranges for the monitoring period. Total suspended solids concentration was above the consent limit. An explanation for this exceedance was provided.

Table 25 Tegel Feedmill stormwater sampling results, site STW001015

Parameter	Unit	27 June 2023	Consent limits
Temperature	°C	13.1	-
pH	pH	6.8	6.0 – 9.0
Conductivity	mS/m	30.8	-
Suspended solids	g/m ³	119	100
Turbidity	FNU	56	-
COD	g O ₂ /m ³	130	-
TBOD ₅	g O ₂ /m ³	20	25
Total hydrocarbons	g/m ³	0.9	15*
Nutrients			
NH ₃	g/m ³	0.00168	-
NH ₄	g/m ³	1.08	-
DRP	g/m ³	0.022	-

*Hydrocarbons measured in place of oil & grease

12.2.3 Air inspections

The inspections focus on assessing the relevant emission sources to air particularly:

- the cyclonic dust extraction systems;
- the boiler and exhaust gas stack;
- general processing areas within the plant;
- raw and finished material storage areas (including the main silos);
- and conveyance system within the factory.

In addition to this any changes to the mill which could have an effect upon local air quality were also checked.

The feedmill site was inspected on 31 October 2022, 27 January and 27 June 2023. The site was inspected in a variety of wind and weather conditions. During the period under review, no visible emissions were found from the emission abatement equipment, the processing buildings or the dry goods/grain storage sheds at any of the inspections. No issues were noted with regards to dust.

12.2.4 Deposition gauging

Many industries emit dust from various sources during operational periods. In order to assess the effects of the emitted dust, industries have been monitored using deposition gauges.

Deposition gauges are basically buckets elevated on a stand to about 1.6 m. The buckets have a solution in them to ensure that any dust that settles out of the air is not re-suspended by wind.

Guideline values used by the Council for dust deposition are 4 g/m²/30 days or 0.13 g/m²/day deposited matter. Consideration is given to the location of the industry and the sensitivity of the surrounding community, when assessing results against these values.

Deposition gauging is carried out triennially at the sites, this was undertaken during the 2021-2022 period, so the next survey is scheduled for 2024-2025.

12.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with Tegel feedmill's conditions in resource consents or provisions in Regional Plans.

12.4 Evaluation of performance

A tabular summary of Tegel's compliance record for the year under review is set out in Table 26 and Table 27.

Table 26 Summary of performance for Tegel consent 2335-4

Purpose: To discharge stormwater from a stock/poultry feed manufacturing site to NPDC's stormwater drainage network		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment, particularly with respect to BOD	Inspections and discussion with consent holder	No Two inspections observed poor housekeeping and the build up of debris in the yard
2. Limits stormwater catchment area	Inspections	Yes
3. Limits on chemical composition of discharge	Sampling of discharges	Mostly - one TSS exceedance
4. Discharge cannot cause specified adverse effects beyond mixing zone	Receiving water sampling	Yes
5. Wastewater tank to be replaced with trade waste connection by 30 November 2014	Installation complete	Yes
6. Provision of performance based improvement programme by 1 April 2014	Received July 2014	Yes
7. Performance report to be provided by 1 July each year	Received in October 2023	Yes
8. Maintenance of a contingency plan for action to be taken to prevent spillage	Up-to-date as of February 2018	Yes
9. Prepare and maintain stormwater management plan	Updated plan received September 2022	Yes
10. Written notification required regarding changes to activities at the site	No changes during monitoring period	Yes
11. Optional review provision re environmental effects	Next opportunity for review June 2023, recommendation attached in section 17.6	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 or not assessed

Table 27 Summary of performance for Tegel's consent 4038-6

Purpose: To discharge emissions into the air from the milling and blending of grain and/or animal meals together with associated activities		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to prevent or minimise effects on the environment	Inspections and discussion with consent holder	Yes
2. No alterations that might change the nature/quantity of discharge without prior consultation with Council	No changes during monitoring period	Yes
3. Maintenance of plan to prevent accumulation of dust in stormwater catchment	Inspections and discussion with consent holder	Yes
4. Limit on point source particulate emissions (125 mg/m ³)	Not assessed during monitoring period	N/A
5. Limit on dust deposition beyond boundary (4.0 mg/m ² /day)	Not assessed during monitoring period	N/A
6. Limit on boundary suspended particulates (3 mg/m ³)	Not assessed during monitoring period	N/A
7. Keep, and make available, records of all dust and smoke incidents	Inspections of records and discussion with consent holder	Yes
8. Clearance of accumulated dust	Inspections	Yes
9. Optional review provision re environmental effects	Consent has expired	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, Tegel Foods Limited (Feedmill) demonstrated an overall good level of environmental performance and administrative performance with their resource consents as defined in Appendix II.

13 Tegel Foods Limited – Poultry Processing Plant

13.1 Site description

Tegel Foods Limited (Tegel) operates a poultry processing plant on Paraite Road in the south-east corner of the Bell Block industrial area (Figure 14). The plant processes, on average, 65,000 birds per day, but has the capacity to process 105,000 per day.



Figure 14 Aerial view of Tegel poultry processing plant site, with the location of the associated discharge sampling point

Poultry are delivered in plastic crates to the hanging area where they are hung on a chain line, in a semi-enclosed area under a roof with two exhaust fans discharging to the atmosphere. Slaughter is accomplished via stunning and bleeding, and then the carcasses are scalded and plucked. The chickens then enter a primary processing stage where they are prepared to a 'dressed' stage prior to secondary processing or alternatively chilling and dispatch as whole chickens. The refrigeration system in place utilises ammonia as a coolant replacing a carbon dioxide based system. Primary and secondary processed chickens are chilled and frozen on site before being moved off site for storage.

All materials to be rendered, including feathers, are transferred by screw conveyor into trucks and removed off site to Taranaki By-Products Ltd for further processing. Blood is pumped to a holding tank prior to discharge.

Wastewaters such as cooling water, blowdown, and process water, along with truck wash water are directed to trade waste sewer. Modifications have been made to divert runoff from the live bird reception area and yard to the trade waste system also. Areas with potential for spillage of chemicals have been bunded. Spill containment equipment is on site.

Stormwater from a developed area of 1.7 ha discharges to the Mangati catchment at two points. Drainage from most of the site flows to a small wetland on the southern side of the plant that feeds into the Mangati Stream. Drainage from the relatively small remainder, including the car park and part of the load-out area in the north western area of the site, flows into the NPDC De Havilland Drive stormwater drain.

Major construction activities occurred at the site during the 2002-2003 monitoring period. In large, upgrades have been driven by the relocation of processing activities from the Te Horo region to the New Plymouth site. New structures included a new crate wash, concreting in the area around the ammonia plant, and 5,000 m² of roofing, which covers the bird reception area, renderable waste storage area, and areas that flowed to both the stormwater and trade waste catchments. A new chlorinated water tank has been installed within a bunded area that drains to trade waste. Additional expansions at the site have also included a new cool store and load out area, and a sausage plant.

Contingency plans in place for the site include a contingency plan in case of spillage, a contingency plan for burial to land, and a contingency plan for discharge to air.

Discharge to water

Tegel hold water discharge permit **3470-4** to discharge stormwater from a poultry processing plant site to the NPDC drainage network; and discharge permit **7389-1** to cover the discharge of stormwater from a poultry processing plant via a wetland into the Mangati Stream.

Discharge to air

Tegel holds air discharge permit **4026-3** to discharge emissions into the air from the processing of animal matter and associated processes.

Discharge to land

Tegel hold discharge permit **5494-2** to discharge poultry processing wastes by burial into land in the vicinity of the Mangati Stream in emergency circumstances only.

Copies of all permits are attached to this report in Appendix I.

13.2 Results

13.2.1 Inspections

Three routine inspections were conducted during the monitoring period, on 31 October 2022, 27 January and 29 June 2023. These inspections focused on the discharge of stormwater (consents 3470-4 and 7389-1) and air discharges (consent 4026-3). The consent for the discharge of contaminants to land (5494-2) was not exercised during the period under review.

Over the year under review, the site was clean and tidy. The stormwater drain filters were clean and appeared in good order. Hazardous substances were stored appropriately in a well bunded area. The wetland looked healthy. The water quality through the wetland was clear and the discharge appeared to have no impact on the receiving environment. No issues were noted downstream of the processing plant. No odour was detected around the wastewater pond, offsite and downstream of the pond. The site was found compliant at the time of the inspections.

13.2.2 Results of receiving environment monitoring

13.2.2.1 De Havilland Drive stormwater discharges

Stormwater from the northern and eastern parts of the site is discharged via three lateral connections to NPDC's network on de Havilland Drive (STW001130, STW001129 and STW001128). A sample was collected from site STW001129 during the wet weather survey in June 2023, while STW001128 was not discharging. STW001130 was not accessible and it will be removed from the monitoring programme for the next monitoring year. Results are shown in Table 28.

Table 28 Tegel de Havilland Drive Pipe B stormwater sampling results, STW001129

Parameter	Description	27 June 2023	Consent limits
Temperature	°C	11.1	-
pH	pH	6.8	6.0 – 9.0
Conductivity	mS/cm	2.7	-
Suspended Solids	g/m ³	53	100
Turbidity	NTU	28	-
TBOD ₅	g O ₂ /m ³	1.2	15
Nutrients			
NH ₃	g/m ³	0.000052	-
NH ₄	g/m ³	0.043	-
DRP	g/m ³	< 0.004	-

The results show that the Tegel discharge to the de Havilland Drive stormwater network was of a consistently good standard, with all parameters measured within consented conditions.

13.2.2.2 Tegel wetland discharges to Mangati Stream

Site STW001053 is the point at which Tegel discharges stormwater to the polishing wetland. Stormwater from the site is screened and flows over a low weir and series of rip raps before entering the wetland. Samples are collected of the discharge as it flows over the weir due to access limitations.

The outlet from the wetland to the stream (site MGT000489) is considered to be the discharge point when assessing compliance with consent conditions. Comparison of results for this site with STW001053 allows for assessment of the treatment performance of the wetland.

Both sites were sampled three times during the monitoring period. Results are shown in Table 29, Table 30 and Table 31.

Table 29 Tegel stormwater and wetland sampling results, 17 November 2022

Parameter	Units	STW001053 stormwater to wetland	MGT000489 wetland to Mangati Stream	Consent limits
Temperature	°C	16.8	16.6	-
pH	pH	6.9	7.1	6.0 – 9.0
Conductivity	mS/m	6.5	17.9	-
Suspended Solids	g/m ³	< 3	5	100
DO	mg/L	-	9.65	-

Parameter	Units	STW001053 stormwater to wetland	MGT000489 wetland to Mangatī Stream	Consent limits
	%	-	99.8	-
Turbidity	NTU	1.16	2.8	-
COD	g O ₂ /m ³	27	-	-
CBOD ₅	g O ₂ /m ³	-	< 1.0	-
TBOD ₅	g O ₂ /m ³	4	< 0.4	15
Nutrients				
NH ₃	g/m ³	0.0025	0.00040	0.025
NH ₄	g/m ³	1.06	0.106	-
DRP	g/m ³	0.197	0.009	-

Table 30 Tegel stormwater and wetland sampling results, 27 March 2023

Parameter	Units	STW001053 stormwater to wetland	MGT000489 wetland to Mangatī Stream	Consent limits
Temperature	°C	11.1	15.4	-
pH	pH	7.8	7.3	6.0 – 9.0
Conductivity	mS/m	17.1	16.7	-
Suspended Solids	g/m ³	< 3	< 3	100
DO	mg/L	-	7.89	-
	%	-	79.1	-
Turbidity	NTU	0.41	1.55	-
COD	g O ₂ /m ³	18	-	-
CBOD ₅	g O ₂ /m ³	-	< 1.0	-
TBOD ₅	g O ₂ /m ³	< 0.4	< 0.4	15
Nutrients				
NH ₃	g/m ³	0.0009	0.00011	0.025
NH ₄	g/m ³	0.045	0.020	-
DRP	g/m ³	0.017	< 0.004	-

Table 31 Tegel stormwater and wetland sampling results, 27 June 2023

Parameter	Units	STW001053 stormwater to wetland	MGT000489 wetland to Mangatī Stream	Consent limits
Temperature	°C	11.3	10.6	-
pH	pH	7.0	6.7	6.0 – 9.0
Conductivity	mS/m	46.4	25.5	-
Suspended Solids	g/m ³	18	< 3	100

Parameter	Units	STW001053 stormwater to wetland	MGT000489 wetland to Mangatī Stream	Consent limits
DO	mg/L	-	3.15	-
	%	-	28.7	-
Turbidity	NTU	10.7	3.3	-
COD	g O ₂ /m ³	34	-	-
CBOD ₅	g O ₂ /m ³	-	< 1.0	-
TBOD ₅	g O ₂ /m ³	5.7	0.7	15
Nutrients				
NH ₃	g/m ³	0.0043	0.000091	0.025
NH ₄	g/m ³	1.97	0.089	-
DRP	g/m ³	0.163	0.004	-

The discharge from the wetland was observed to be within the consent limits for BOD, unionised ammonia, pH and suspended solids in all samples. The wetland worked efficiently as it contributed to significantly decrease the concentration of nutrients and TBOD, especially in November 2022 and June 2023.

13.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with Tegel Poultry Processing Plant's conditions in resource consents or provisions in Regional Plans.

13.4 Evaluation of performance

A tabular summary of the consent holder's compliance record for the year under review is set out from Table 32 to Table 35.

Table 32 Summary of performance for Tegel consent 3470-4

Purpose: To discharge stormwater from a poultry processing plant site to NPDC's drainage network		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment, particularly with respect to BOD	Inspections and discussion with consent holder	Yes
2. Limits stormwater catchment area	Inspections	Yes
3. Limits on chemical composition of discharge	Sampling and analysis of discharges	Yes
4. Discharge cannot cause specified adverse effects beyond mixing zone	Receiving water sampling	Yes
5. Provision of stormwater network analysis by 28 February 2014	Review of documents provided July 2014	Yes

Purpose: To discharge stormwater from a poultry processing plant site to NPDC's drainage network		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
6. Maintenance of contingency plan	Plan provided	Yes
7. Maintenance of and adherence to a stormwater management plan	Plan provided	Yes
8. Written notification required regarding changes to activities at the site	Inspections and discussion with consent holder. No changes occurred which may alter the nature of the discharge	N/A
9. Optional review provision re environmental effects and notifications of changes	Next opportunity for review June 2023, recommendation attached in section 17.6	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

Table 33 Summary of performance for Tegel consent 7389-1

Purpose: To discharge stormwater from a poultry processing plant via a wetland into the Mangati Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment	Inspections and discussion with consent holder	Yes
2. Limits stormwater catchment area	Inspections	Yes
3. All stormwater directed through treatment system (wetland), and wetland to be maintained to ensure effective treatment	Inspections and discussion with consent holder	Yes
4. Above ground hazardous substance storage to be bunded and not to drain directly to stormwater catchment	Inspections and discussion with consent holder	Yes
5. Limits on chemical composition of discharge	Sampling and analysis of discharges	Yes
6. Discharge cannot cause specified adverse effects beyond mixing zone	Receiving water sampling	Yes
7. Limit on filtered carbonaceous BOD change in stream (2 g/m ³)	Receiving water sampling	Yes
8. Wetland to be maintained to ensure maximum effluent treatment at all times	Inspections and discussion with consent holder and sampling	Yes
9. Riparian fencing to be completed as per plan by 31 December 2010	Inspections by Council Land Management Officers	Yes

Purpose: To discharge stormwater from a poultry processing plant via a wetland into the Mangati Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
10. Maintenance of a contingency plan for action to be taken to prevent spillage	Plan provided	Yes
11. Maintenance of and adherence to a stormwater management plan	Plan provided	Yes
12. Written notification required regarding changes to activities at the site	Inspection and discussion with consent holder. No changes occurred which may alter nature of discharge	N/A
13. Optional review provision re environmental effects and notifications of changes	No further opportunity for review prior to expiry	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

Table 34 Summary of performance for Tegel consent 4026-3

Purpose: To discharge emissions into the air from the processing of animal matter and associated processes		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment	Inspections and discussion with consent holder	Yes
2. No alterations that might change the nature/quantity of discharge without prior consultation with the Council	Inspections and discussion with consent holder. Review of documents provided to the Council	N/A
3. Offensive and objectionable odours beyond boundary not permitted	Inspections and discussion with consent holder. Complaint response	Yes
4. No offal or blood to go to wastewater pond	Inspections and discussion with consent holder	Yes
5. Contingency plan to be maintained and regularly updated	Plan provided	Yes
6. Operation and maintenance plan re special conditions of consent and particular aspects of Tegel's activities	Plan provided	Yes
7. Optional review provision re environmental effects	Next opportunity for review June 2026	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

Table 35 Summary of performance for Tegel consent 5494-2

Purpose: To discharge poultry processing wastes by burial into land in the vicinity of the Mangati Stream in emergency circumstances only		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. To be exercised in emergency only, as confirmed by Council	Not exercised during period under review	N/A
2. Details to be provided to Council prior to exercise of consent	Not exercised during period under review	N/A
3. Adopt BPO to prevent or minimise adverse effects	Not exercised during period under review	N/A
4. Burial trenches to be more than 25 m from any surface water body	Not exercised during period under review	N/A
5. Base of burial trenches to be located above groundwater level	Not exercised during period under review	N/A
6. Consent holder to maintain records of disposal	Not exercised during period under review	N/A
7. Maintain and update a Burial Management Plan	Updated plan received August 2014	Yes
8. Lapse of consent June 2032		N/A
9. Optional review provision re environmental effects	Next opportunity for review June 2026	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, Tegel Foods Limited – Poultry Processing demonstrated a high level of environmental and administrative performance and compliance with their resource consents as defined in Appendix II.

14 MOVE Freight Limited

14.1 Site description

MOVE Freight Limited (or MOVE, previously operating as TIL Freight Limited), operates a truck depot from a 5.7 ha site from which goods for various industries are transported throughout the country. The site was established in 2005. The three primary industries using MOVE's transport services are food and beverage, agriculture, and petroleum/gas exploration. Some of the materials handled or transported through the site are classified as hazardous substances and others, although not classified as hazardous substances, would result in adverse environmental effects if discharged to water.

The site straddles the Mangati Stream/Mangaone Stream catchment boundary, and therefore MOVE holds consents to discharge stormwater in each of these catchments (Figure 15).

Activities in the Mangaone catchment include a container storage area, a truck parking area, a truck wash facility and Ross Graham Motors workshop.

The truck wash facility has a wash water separator, which directs stormwater into the stormwater system and any truck wash into the sewage system. The separator is a "Smart Valve", which works by directing all water from the truck wash pad to trade waste whenever it is in use (i.e. if any tap is turned on). While the truck wash is not in use, water is directed to stormwater after a certain amount of rainfall.

The truck park and container storage areas have sumps that collect stormwater, and direct it through a 300 mm pipe to the stormwater settlement pond. The pond, which is approximately 350 m² in area and 3 m deep, has an overflow outlet pipe. However, it was anticipated that the pond would be large enough for the stormwater to soak away, without overflows occurring.

The consent for this area was granted prior to the development of the site. At the time the consent was processed it was considered that, as the truck wash water is discharged to trade waste, and stormwater is directed to the stormwater settlement pond to soak away, there should be no direct discharge to surface water and therefore no adverse environmental effects were anticipated.

The eastern area of the site (approximately 2.60 ha) is piped to NPDC's reticulated stormwater system at three points, and discharges to the Mangati Stream via the NPDC's constructed wetland.

A large proportion of this area of the site is roofed (approximately 1.26 ha) and the remainder is predominantly hard paved or metalled. Activities within the stormwater catchment include parking, loading, storage and heavy vehicle movements.

The stormwater discharges from three points, all of which contain a mixture of roof stormwater and yard stormwater. The northern catchment is predominantly leased, and contains KMC Engineering, the Coca-Cola distribution loading area and parking, and has a low traffic volume. It discharges to the NPDC system at Connett Road.

The central catchment is used for loading and storage, and has high heavy traffic volume. This area discharges to the NPDC system on Paraite Road in front of the loading tunnel. The southern catchment contains molasses storage and loading facilities, container storage, privately leased storage sheds and a wash bay used for cleaning imported containers to the standards required by the Ministry of Primary Industries (MPI). It is subject to a lower volume of heavy traffic movement and discharges to the NPDC system in front of the building leased by Turners and Growers.

MOVE Freight Limited holds water discharge permit **7578-1** to cover the discharge of stormwater into the Mangati Stream; and discharge permit **6952-1** to cover the discharge of stormwater from a truck depot into and onto land in the vicinity of the Mangaone Stream in the Waiwhakaiho catchment. Copies of both permits are attached to this report in Appendix I.



Figure 15 Aerial view of MOVE site, with the location of the associated sampling point

14.2 Results

14.2.1 Inspections

Three routine inspections were conducted at the site during the monitoring period, on 18 October 2022, 11 May, and 28 June 2023.

The site and the tunnel were clean tidy and well maintained. The stormwater drain in the tunnel had a filter sock on. An ongoing maintenance task at this site is the sand in the gutters that is regularly blown across from the truck parking area. The site was rated as compliant at the time of the inspections.

14.2.2 Results of receiving environment monitoring

There are no limits on the constituents of the discharge directed to the on-site stormwater pond that discharges onto and into land in the Waiwhakaiho/Mangaone Stream catchment, and so this is not currently programmed for sampling.

Two stormwater monitoring points have been identified on the MOVE site for the areas of the site discharging to the Mangati Stream via the NPDC reticulated stormwater network and stormwater ponds.

Stormwater from the south eastern area of the site, which contains the rented storage sheds, the molasses storage and transfer area, the MPI wash pad, and Turners & Growers is sampled from a stormwater drain on Paraite Road in front of Turners & Growers' southern entrance (site, STW001133).

Stormwater from the north eastern area of the site, which contains the rest of the active areas including the freight tunnel, entranceways, and storage areas, is sampled from a stormwater drain on Paraite Road in front of the main truck exit (STW001132). This location was not sampled during the year under review due to no

accessibility. For the next monitoring year, site STW001132 has been relocated on MOVE's site, at the exit of the tunnel.

The site STW001133 was sampled once during the year, during wet weather. The results from chemical monitoring are given in Table 36. All results complied with relevant consent limits.

Table 36 MOVE stormwater sampling results, 11 November 2022

Parameter	Units	STW001133	Consent limits
Temperature	°C	20.0	-
pH	pH	6.6	6.0 – 9.0
Conductivity	mS/cm	2.9	-
Suspended Solids	g/m ³	13	100
Turbidity	FNU	9.5	-
TBOD ₅	g O ₂ /m ³	3.0	7
Total hydrocarbons	g/m ³	VP	15*
DRP	g/m ³	0.034	-

*Hydrocarbons measured in place of oil & grease; VP = visual pass

14.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with MOVE's conditions in resource consents or provisions in Regional Plans.

14.4 Evaluation of performance

A tabular summary of MOVE's compliance record for the year under review is set out in Table 37 and Table 38.

Table 37 Summary of performance for MOVE consent 7578-1

Purpose: To discharge stormwater to the Mangati Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment	Inspections and discussion with consent holder	Yes
2. Limits stormwater catchment area	Inspections and discussion with consent holder	Yes
3. Above ground hazardous substance storage to be bunded	Inspections and discussion with consent holder	Yes
4. Limits on chemical composition of discharge	Inspections and sampling	Yes
5. Discharge cannot cause specified adverse effects surface water	Observation at inspections	Yes
6. Maintenance of and adherence to contingency plan, reviews to be within two years	Updated plan received in November 2022	Yes

Purpose: To discharge stormwater to the Mangati Stream		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
7. Maintenance of and adherence to stormwater management plan, reviews to be within two years	Updated plan received in November 2022	Yes
8. Written notification required regarding changes to activities at the site that alters nature of discharge	Inspection and discussion with consent holder. No changes	N/A
9. Provision for lapse of consent	Consent exercised	N/A
10. Optional review provision re environmental effects or notification of changes	No further opportunity for review prior to expiry	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

Table 38 Summary of performance for MOVe consent 6952-1

Purpose: To discharge stormwater from a truck depot into and onto land in the vicinity of the Mangaone Stream in the Waiwhakaiho catchment		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects on the environment	Inspections and discussion with consent holder	Yes
2. Limits stormwater catchment area	Inspections and discussion with consent holder	Yes
3. Provision of stormwater management plan prior to exercise of consent	Review of Council records and of any correspondence or documents submitted	Yes
4. Provision of contingency plan prior to exercise of consent	Review of Council records and of any correspondence or documents submitted	Yes
5. All stormwater to be treated in accordance with special conditions	Inspections	Yes
6. Design, management and maintenance of stormwater system to be as per application	Inspections and discussion with consent holder	Yes
7. Above ground hazardous substance storage to be bunded	Inspections and discussion with consent holder	Yes
8. Direct discharge to surface water prohibited. Thirty metre buffer zone between discharge to land and any surface water	Observation at inspections	Yes
9. Provision for lapse of consent	Consent exercised	N/A

Purpose: <i>To discharge stormwater from a truck depot into and onto land in the vicinity of the Mangaone Stream in the Waiwhakaiho catchment</i>		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
10. Optional review provision regarding environmental effects	Consent has expired	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, MOVE Freightling Ltd demonstrated an overall high level of environmental performance and a high level of administrative performance with their resource consents as defined in Appendix II.

15 W Abraham Limited

15.1 Site description

W Abraham Limited (Abraham) operates a crematorium on Swans Road, Bell Block. Approximately 250 cremations occur per year in the gas-fired cremator. Abraham hold consent **7147-2** to discharge emissions into the air from the operation of the cremator. The permit is attached to this report in Appendix I.

The actual and potential adverse effects arising from the operation of the cremator are a result of the discharges to air from the incomplete combustion of natural gas, human remains and caskets. Hazardous air pollutants (HAP) discharged from cremators include carbon dioxide, carbon monoxide, water vapour, nitrogen oxides, inhalable particulate, hydrogen chloride (if plastics are present), trace metals including mercury, and other volatile organic compounds. The stack is approximately 20 m in height which enables effective dispersal of HAPs so that concentrations at ground level are not likely to exceed the relevant health-based assessment criteria at any location beyond the boundary of the site.

Discharges may also result in amenity effects including visible smoke, odour and particulate deposition. At the time of consent application it was noted that the adverse amenity effects from the crematorium have the potential to be significant given the sensitive nature of crematorium activities. However, the location of the facility in an industrial area, the use of modern equipment, and proper operation means that any visible emissions are not likely to result in offensive or objectionable effects.

The adverse effects of cremator discharges can be minimised by in-stack instrumental monitoring and management of measures. The conditions of the consent set out monitoring and management measures including;

- Continuous instrumental monitoring of opacity and chamber temperature. The opacity meter is interlocked with a control system which switches off the burners when a certain threshold is exceeded.
- Maintenance the flue, ducting and cremator to prevent 'leaking' of emissions.
- Removal of metal or PVC casket fittings and other prohibited items.
- Maintaining the chamber temperature above 750 °C.
- The chamber is interlocked so that caskets cannot be loaded until the correct temperature is reached.

Apart from the opacity meter there are no other in-stack instrumental monitors, however, these may be installed if the Council has reason to believe the discharges are having a significant adverse effect.

15.2 Results

15.2.1 Inspections

Three of the four scheduled site inspections were conducted this monitoring year and were completed on 8 September and 24 November 2022, and 24 April 2023. A fourth inspection was scheduled for June 2023 but it had to be cancelled due to unforeseen circumstances.

The site inspections assess the Company's compliance with the conditions of the air discharge consent by observing monitoring data from instruments within the chambers and the cremator stack, obtaining records, and observing the stack exit for visible or odorous emissions during a cremation. Instrumental monitoring of the stack discharges and ambient air quality is not considered necessary because the emissions control system in the cremator adequately minimises contaminants. Condition 23 of the consent provides for stack emissions testing at the discretion of Council. This was not considered necessary this monitoring year.

At each inspection, the operating temperature of the secondary chamber complied with the minimum temperature of 750 °C. Maintaining a high temperature is critical to incinerating hazardous air pollutants, particulate and odour molecules. Obscuration results, as measured by the in-stack opacity meter, were less than the consent limit of 20%. The opacity meter alerts staff when smoke is being generated so that remedial actions can be taken. Historical temperature and obscuration records were inspected and found to be compliant with the respective limits. During the inspection on 24 November 2022, it was noted that the capping between the flue and the stack required some maintenance, otherwise the ducting and stack appeared to be in good condition and well maintained. Observations of the stack exit during cremations did not any visible emissions except for heat haze, and no odour was detected.

15.3 Incidents, investigations, and interventions

In the 2022-2023 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with W Abraham's conditions in resource consents or provisions in Regional Plans.

15.4 Evaluation of performance

A tabular summary of Abraham's compliance record for the year under review is set out in Table 39 below.

Table 39 Summary of performance for Abraham consent 7147-2

Purpose: To discharge emissions to air from a crematorium		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option to minimise effects	Inspections and discussion with consent holder	Yes
2. Consent to be exercised in accordance with application documentation	Inspections and discussion with consent holder	Yes
3. Consultation required prior to making alterations to plant, process or operations	Inspections and liaison with consent holder	Yes
4. Notification prior to maintenance	Inspections and liaison with consent holder	Yes
5. Emissions maintained to a practicable minimum	Inspections	Yes
6. Cremator and ducting to be gas tight such that discharge of gases, other than through the stack, are prevented	Inspections	Yes
7. Flue and ducting to be adequately insulated to prevent specified effects	Inspections	Yes
8. Reasonable steps to reduce the quantity of materials combusted	Inspections	Yes
9. Consent holder to remove external casket fittings containing metals or PVC prior to combustion	Inspections and liaison with consent holder	Yes
10. Interlock required to prevent introduction of a coffin to the primary chamber unless secondary chamber temperature is above 750 °C	Confirmed at inspections	Yes

Purpose: To discharge emissions to air from a crematorium		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
11. Minimum stack height of 8 m	Inspections	Yes
12. Secondary chamber and its outlet to be above 750 °C, with steps to be taken to increase temperature if it falls below 750 °C	Inspections and discussion with consent holder	Yes
13. Cremator shall have two combustion zones with specified minimum residence time and temperature in second chamber. As built diagrams and drawings demonstrating compliance to be provided prior to exercising consent	Built as proposed	Yes
14. Not more than two one-minute averages of the opacity readings shall exceed 20% obscuration per cremation	Inspections and discussion with consent holder	Yes
15. Limits maximum carbon monoxide concentration at outlet of secondary chamber (100 mg/m ³)	Not monitored. Meter to be installed if adverse effects noted	Yes
16. Opacity of exhaust gasses to be continuously monitored and recorded	Records checked at inspections	Yes
17. Temperature of gasses to be continuously monitored and recorded	Records checked at inspections	Yes
18. Maintenance of a schedule of maintenance and calibration	Inspection and discussion with consent holder	N/A
19. Control of emissions of CO, NO ₂ , PM ₁₀ and SO ₂ to not exceed relevant air quality standards	Not monitored. Meter to be installed if adverse effects noted	N/A
20. Control of other emissions so not hazardous, noxious or dangerous	Inspections	Yes
21. Control of odours so not offensive or objectionable	Inspections, no complaints received	Yes
22. Consent holder to undertake emission testing if requested	Not requested during period under review	N/A
23. Consent holder to provide monitoring results on request	Not requested during period under review	N/A
24. Review of consent conditions	Next opportunity for review in June 2026	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable or not assessed

During the year, W Abraham Ltd demonstrated a high level of environmental and administrative performance and compliance with their resource consent as defined in Appendix II.

16 Mangati Stream

16.1 Water quality monitoring

Sampling of the Mangati Stream was carried out twice during wet weather (17 November 2022 and 27 June 2023) and once during dry conditions (27 March 2023).

Six sites on the Mangati Stream directly, and three sites on associated tributaries were monitored. These sites traverse the industrial area and include a point at the coast. The locations of the monitoring sites are shown in Figure 2, and are described in Table 40 and Table 41.

Table 40 Mangati Stream sampling sites

Site	Location	GPS (NZTM)	Site code
Mangati above Tegel (poultry processing plant)	Below railway bridge approx 100 m above inflow from the wetland that receives Tegel discharge	E 1700106 N 5677953	MGT000485
Mangati below Tegel (poultry processing plant)	Approx 200 m below the wetland that receives Tegel's discharge and 40 m above De Havilland Drive	E 1700007 N 5678217	MGT000493
Mangati above Connett Road	Immediately above the end of Connett Road about 200 m below Greymouth Petroleum and Tasman Oil discharge	E 1699775 N 5678573	MGT000497
Mangati above industrial drain	Below pond 3 discharge and immediately above pond 4 and industrial drain direct discharges	E 1699596 N 5678691	MGT000500
Mangati below industrial drain	Approx 50 m below State Highway 3	E 1699513 N 5678787	MGT000512
Mangati at coast	Opposite NPDC sewage pumping station approx 30 m from high water mark	E 1699215 N 5680409	MGT000550

Table 41 Sampling sites in associated tributaries of the Mangati Stream

Site	Location	GPS (NZTM)	Site code
Mangati above J Swap	Unnamed trib. above the J Swap site. Immediately below the railway bridge and above piped section	E 1700772 N 5677898	MGT000475
Mangati at J Swap riser from wetland	Piped tributary below the J Swap wetland. Accessed via base of wetland riser	E 1700503 N 5678062	MGT000479
Mangati below GPL/Tasman Tools	Piped tributary discharging immediately below GPL site. Accessed via Mangati walkway	E 1699876 N 5678411	MGT000498

Sampling runs are always undertaken from the top towards the bottom of the catchment. There are occasionally anomalies in results between sites within sampling runs, owing to differences between velocity of the stream and movement downstream of samplers, and to changing flow conditions during and after rainfall events.

Samples were collected from six sites in the Mangati Stream in wet weather with moderate flow conditions in November 2022 (Table 42), small flow in March 2023 and June 2023 (Table 43 and Table 44, respectively).

Table 42 Mangati Stream wet weather sampling results, 17 November 2022

	Site	MGT000485	MGT000493	MGT000497	MGT000500	MGT000512	MGT000550	<i>RFWP</i>
Parameter	Unit	Above industrial area	Above de Hav Dr	Above Connett Rd	Below Pond 3	Below wetlands	Mangati at Coast	<i>Guidelines</i>
Temperature	°C	16.6	16.6	16.8	17.4	17.2	17.3	-
pH	pH	7.1	7.5	6.9	6.9	7.0	7.2	6.0 – 9.0
Conductivity	mS/m	19.8	19.6	20.6	18.7	18.5	17.2	-
DO	mg/L	10.26	10.66	8.65	8.76	9.79	11.61	-
	%	106.3	105.3	90.0	92.3	103.0	121.9	-
Suspended solids	g/m ³	3	7	11	8	9	5	100
Turbidity	FNU	2.4	3.7	3.7	4.4	5.4	3.1	-
CBOD ₅	g O ₂ /m ³	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
TBOD ₅	g O ₂ /m ³	0.6	0.6	9	1.2	1.8	1.2	-
Nutrients								
NH ₃	g/m ³	0.00042	0.00133	0.00041	0.00055	0.00059	0.00031	0.025
NH ₄	g/m ³	0.097	0.136	0.168	0.21	0.198	0.061	-
NNN	g/m ³	0.55	-	-	-	-	0.74	-
DRP	g/m ³	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	-

Table 43 Mangati Stream dry weather sampling results, 27 March 2023

	Site	MGT000485 Above industrial area	MGT000493 Above de Hav Dr	MGT000497 Above Connett Rd	MGT000500 Below Pond 3	MGT000512 Below wetlands	MGT000550 Mangati at Coast	<i>RFWP Guidelines</i>
Parameter	Units							
Temperature	°C	15.3	15.5	16.1	16.4	16.4	17.4	-
pH	pH	7.5	7.5	7.4	7.5	7.5	7.7	6.0 – 9.0
Conductivity	mS/m	20.0	20.4	21.3	20.3	20.3	19.2	-
DO	mg/L	8.0	7.97	6.65	7.22	7.88	10.08	-
	%	-	80	67.6	73.9	80.6	104.9	-
Suspended solids	g/m ³	4	7	9	< 3	< 3	< 3	100
Turbidity	FNU	2.8	3.6	3.4	2.2	2.6	1.86	-
CBOD ₅	g O ₂ /m ³	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-	-
TBOD ₅	g O ₂ /m ³	< 0.4	0.7	0.8	0.8	1.1	0.5	-
Nutrients								
NH ₃	g/m ³	0.00127	0.00172	0.00164	0.00185	0.00194	0.00122	0.025
NH ₄	g/m ³	0.137	0.179	0.21	0.21	0.20	0.070	-
NNN	g/m ³	-	-	-	-	0.47	0.76	-
DRP	g/m ³	< 0.004	0.004	< 0.004	< 0.004	< 0.004	< 0.004	-

Table 44 Mangati Stream wet weather sampling results, 27 June 2023

	Site	MGT000485 Above industrial area	MGT000493 Above de Hav Dr	MGT000497 Above Connett Rd	MGT000500 Below Pond 3	MGT000512 Below wetlands	MGT000550 Mangati at Coast	<i>RFWP Guidelines</i>
Parameter	Units							
Temperature	°C	11.6	11.7	12.5	12.6	12.8	13.2	-
pH	pH	7.0	7.4	7.0	6.9	6.9	7.2	6.0 – 9.0
Conductivity	mS/m	18.9	19.3	19.7	17.0	17.3	17.7	-
DO	mg/L	9.09	8.68	8.09	8.35	8.9	9.99	-
	%	85.2	81.6	77.6	80.2	85.2	96.8	-
Suspended solids	g/m ³	5	6	< 3	4	5	< 3	100
Turbidity	FNU	3.3	4.0	2.8	4.0	3.7	2.1	-
CBOD ₅	g O ₂ /m ³	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-
TBOD ₅	g O ₂ /m ³	0.5	0.8	1.4	1.0	0.9	0.8	-
Nutrients								
NH ₃	g/m ³	0.00022	0.00075	0.00037	0.00029	0.00034	0.00035	0.025
NH ₄	g/m ³	0.104	0.137	0.177	0.172	0.176	0.106	-
NNN	g/m ³	0.74	-	-	-	-	0.77	-
DRP	g/m ³	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	-

Overall, the results are considered to provide a good indication of the range of water quality conditions in the stream at the various sites. Historical results have been biased towards wet weather conditions due to the fact that the Council has historically programmed two wet weather surveys and one dry weather survey per year.

Of particular note are the pH ranges, and the suspended solids and unionised ammonia (NH₃) concentrations, which were all within and/or well below the guidelines from the Regional Fresh Water Plan for Taranaki. This has not historically been the case for this catchment, which has a long and varied history with water quality.

Slight elevations in nutrient concentration are routinely detected immediately below the outlet of the NPDC wetlands (MGT000512) indicating there are still contributions from the stormwater system of these contaminants.

Ammonia levels were not found to be particularly elevated in any of the surveys and none of the stream samples taken during period under review exceeded the 0.025 g/m³ RFWP unionised ammonia guideline limit for the protection of aquatic ecosystems. All ammoniacal nitrogen results were below the 0.9 g/m³ national guideline.

Phosphorus concentrations were found to be low and constant throughout the stream. A general decrease of phosphorous concentration has been observed since 2016 at the upstream sites, showing a decrease in the semi-agricultural discharges.

There are several guidelines for zinc and copper for assessing water quality in terms of suitability for sustaining aquatic life. The United States Environmental Protection Agency (USEPA), in defining metals criteria for protection of freshwater aquatic life, has adopted the use of dissolved metals as most closely approximating the bio available fraction of metal in the water column. Previously, water quality criteria were based on total recoverable metal concentration.

The water quality criteria for dissolved copper and zinc, for water of hardness 50 g/m³ CaCO₃, are 0.005 g/m³ for Cu and 0.058 g/m³ for Zn, as a four day average, for chronic (long term) exposure. The corresponding criteria for acute (4-hour) exposure are 0.007 g/m³ for Cu and 0.064 g/m³ for Zn. Acute criteria only are applicable to wet weather sampling results, whereas both chronic and acute exposure criteria are applicable to dry weather sampling results.

Dissolved copper and zinc analyses were routinely carried out in the Mangati Stream, and results are displayed below in Table 45 and Table 46.

Table 45 Dissolved copper concentrations (in g/m³) in the Mangati Stream

	MGT000485	MGT000493	MGT000497	MGT000500	MGT000512	MGT000550
17 November 2022	0.0005	0.0006	0.0007	0.0014	0.0016	0.0014
27 March 2023	< 0.0005	< 0.0005	0.0005	0.0007	0.0008	0.0009
27 June 2023	< 0.0005	0.0005	0.0008	0.0013	0.0012	0.0012
10-yearly minimum	< 0.0005	< 0.0005	0.0005	0.0007	0.0008	<0.001
10-yearly maximum	0.003	0.006	0.005	0.005	0.0119	0.006

Table 46 Dissolved zinc concentrations (in g/m³) in the Mangati Stream

	MGT000485	MGT000493	MGT000497	MGT000500	MGT000512	MGT000550
17 November 2022	0.0013	0.0071	0.0076	0.023	0.021	0.0086
27 March 2023	0.0014	0.0050	0.0058	0.0092	0.0108	0.0076
27 June 2023	0.0020	0.0083	0.0126	0.025	0.024	0.0146
10-yearly minimum	< 0.0010	<0.005	0.0033	0.0035	0.0042	0.0042
10-yearly maximum	0.034	0.17	0.034	0.084	0.087	0.088

All six samples collected during the wet weather survey were below the USEPA chronic and acute exposure limits for both dissolved copper and dissolved zinc, and generally were close to the lowest concentrations found at any time within the last ten years.

16.2 Biological monitoring

Biological surveys produce a measure of time-integrated effects of discharges on water quality of a waterway, as opposed to the “snapshot” measure of a chemical sampling survey. Copies of the full biological monitoring reports summarised below can be available upon request.

16.2.1 Fish survey

The Mangati Stream is known to support a relatively abundant native fish community, including a number of regionally distinctive species. Unfortunately, there have also been historical incidents, where unauthorised discharges have affected the fish community, at times resulting in significant fish kills. A wastewater discharge event occurred in January 2019 resulting in the deaths of an estimated 1,000 to 1500 fish in the lowest 1 km of the stream leading to a prosecution; this was outside this surveyed area. An abatement notice was also provided to Waka Kotahi in 2020 for a fish passage barrier under the state highway which was remediated in 2022; this was between sites 2 and 1. These activities may influence fish results in the stream for a number of years.

This survey is the seventh fish survey completed as a part of the Mangati Catchment monitoring programme. Previous surveys have used either the electric fishing or spotlighting methodology. The fish communities of the Mangati Stream were surveyed at three sites (Table 47 and Figure 16) using the spotlighting survey method, on the 27th of February 2023. Site 1 is located upstream of most discharges from this area, and sites 2 and 3 are located downstream of most discharges from the Bell Block industrial area, allowing an assessment of potential discharge impacts.

Table 47 Sites surveyed in the Mangati Stream, 27th of February 2023

Site	Site code	Site description	Altitude (m)	Distance from coast (m)	Area surveyed (m ²)
1	MGT000493	Mangati Stream, De Havilland Drive	30	2.64	45
2	MGT000512	Mangati Stream, downstream SH3	20	1.83	176
3	MGT000520	Mangati Stream, 400 m below Devon Rd	20	1.53	197.5



Figure 16 Sites surveyed for fish in the Mangati Catchment

This survey recorded a total of five fish species, of which redfin bully was the most abundant and giant kōkopu was the least abundant. Also recorded in the survey were longfin eel, īnanga, banded kōkopu and a number of unidentified eels and kōkopu. Site 3 recorded the highest number of fish, while site 2 had slightly less fish recorded and site 1 documented the least amount of fish. This indicates a decrease in fish numbers up the Mangati catchment. Redfin bully, longfin eel and banded kōkopu were recorded at all three sites. The giant kōkopu was only recorded at site 3, while īnanga were only recorded at site 1. A summary of the fish abundance over the last four surveys is presented in Figure 17.

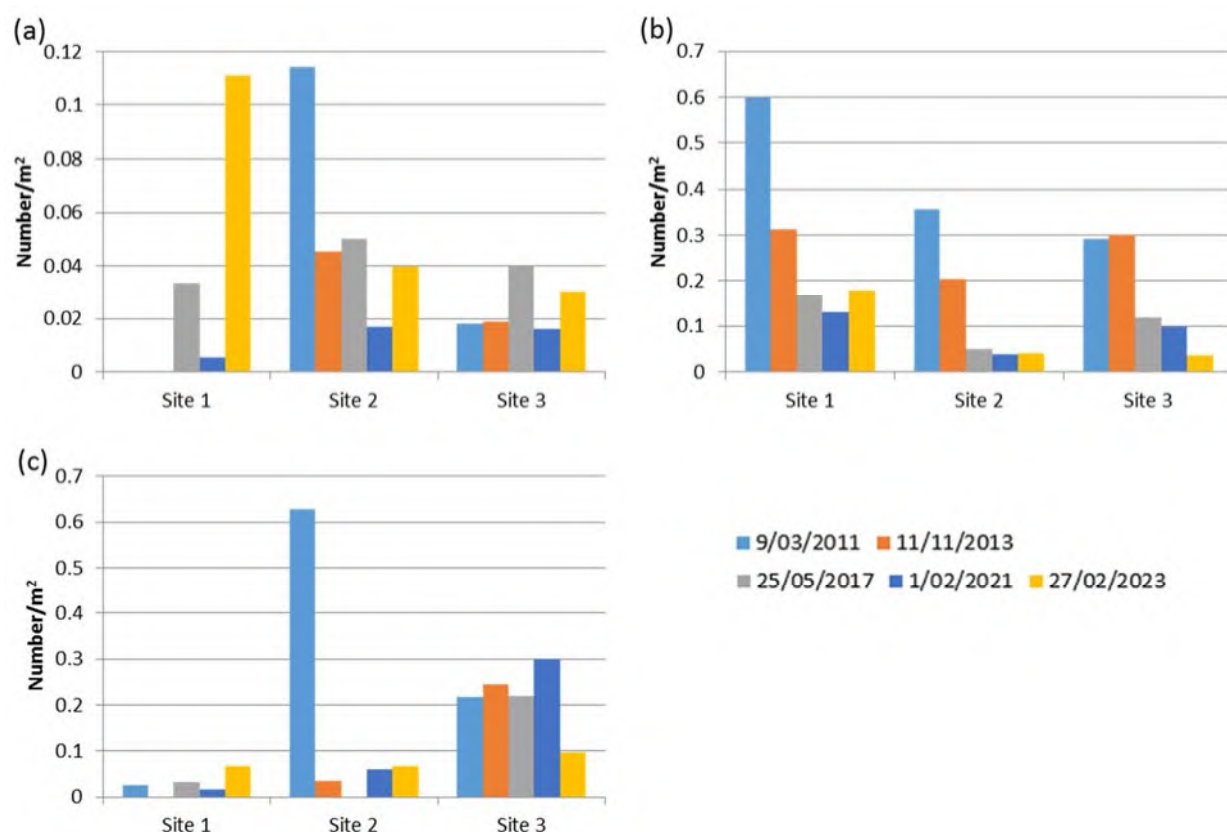


Figure 17 Abundance of (a) eels, (b) galaxiids, and (c) redfin bully recorded in the Mangati Stream per m² over the last four surveys (March 2011 in light blue, November 2013 in orange, May 2017 in grey, and February 2021 in dark blue and February 2023 in yellow)

16.2.2 Macroinvertebrate surveys

The routine surveys for the period under review were carried out on 4 January 2023 and 7 March 2023. These were the 54th and 55th surveys for this programme. The reports for these surveys are available upon request. The “tributary” referred to in the reports is the main industrial storm drain (site MGT000503, sampled during chemical sampling surveys).

The surveys measure the “health” of the stream in terms of the presence and abundance of benthic macroinvertebrates (bottom dwelling life) and microflora. There are eight fixed sites, as described in Table 48 and Figure 18. The uppermost site is above the influence of any known industrial discharge. There are five sites above and three below the pond 3 discharge from the wetland.

Table 48 Biomonitoring sites in the Mangati Stream catchment

Site No	Site code	Grid reference	Location
A	MGT000488	E1700095 N5678043	Mangati Stream, 20 m upstream of swampy tributary
A2	MGT000490	E1700062 N5678084	Mangati Stream, 100 m downstream of swampy tributary
A1	MGT000491	E1700018 N5678166	Mangati Stream, 50 m upstream of De Havilland Drive

Site No	Site code	Grid reference	Location
A3	MGT000497	E1699775 N5678573	Mangati Stream, 10 m above Connett Road
B	MGT000500	E1699596 N5678691	Mangati Stream above the industrial tributary, below wetland
D2	MGT000512	E1699513 N5678787	Mangati Stream, 20 m downstream SH3
E	MGT000520	E1699385 N5679103	Mangati Stream, 400 m below Devon Road
F	MGT000550	E1699215 N5680409	Mangati Stream, 50 m above Bell Block beach



Figure 18 Macroinvertebrate sampling sites in the Mangati Stream

The reports assess the quality of the water in terms of macroinvertebrate diversities (number of taxa), Macroinvertebrate Community Index (MCI) values, and Semi-Quantitative Macroinvertebrate Community Index (SQMCI) values.

The MCI is a measure of the overall sensitivity of the macroinvertebrate community to the effects of organic pollution in stony streams. It is based on the presence/absence of taxa with varying degrees of sensitivity to environmental conditions. The SQMCI takes into account taxa abundance as well as sensitivity to pollution, and may reveal more subtle changes in communities, particularly if non-organic impacts are occurring. Significant differences in either the MCI or the SQMCI between sites indicate the degree of adverse effects (if any) of the discharges being monitored.

Past biological surveys of the Mangati Stream have recorded poor macroinvertebrate communities with limited numbers of taxa and low MCI values, particularly downstream of the industrial tributary. Small, slow flowing coastal streams draining farmland and industrial areas are not expected to support a large number of macroinvertebrate taxa. High MCI values are not expected in the lowland reaches of soft-bedded streams with farmland or urban catchments because not many high scoring, 'sensitive' taxa are suited to these conditions. However, the abundance and MCI values recorded at some sites downstream of the tributary have been unusually low even for these conditions. A summary and conclusions of the macroinvertebrate survey reports are given below.

16.2.2.1 January 2023 survey

The Council collected streambed macroinvertebrates from eight sites in the Mangati Stream on 4 January 2023 to investigate the effects of the stormwater and wastewater discharges from the Mangati industrial area on macroinvertebrate health. Macroinvertebrates were identified and the number of different types of taxa counted (taxa richness), and MCI and SQMCI scores were calculated for each site.

The Mangati Stream sites had low to moderate macroinvertebrate community taxa richness, with the three uppermost sites recording between 12 and 14 taxa, and the downstream sites between five to eight taxa. MCI scores indicated that the surveyed reach was generally in either 'fair' or 'poor' health except for site B which was in 'very poor' health. There was a decline of 17 units from site A3 to site B and a substantial improvement of 18 units from site B to site E. The 'very poor' MCI score at site B indicates that this site had experienced poor preceding water quality.

The SQMCI can be more sensitive to pollution compared with the MCI. SQMCI scores indicated 'good' health at the control site, site A; 'fair' health at site A2, 'very poor' health at sites A3 and D2; and 'poor' health for the remaining sites.

EPT taxa comprise the pollution sensitive mayfly, stonefly and caddisfly groups. The number of EPT taxa declined in a downstream fashion with four, five, three, one, zero, zero, one and zero EPT taxa found at sites A, A2, A1, A3, B, D2, E and F, respectively, with the percentage of EPT taxa being 33%, 36%, 25%, 13%, 0%, 0%, 14% and 0%, respectively.

The composition of the macroinvertebrate communities in the Mangati Stream at the upper sites were typical for a lowland, soft-bottom stream running through farmland, an industrial area and a residential area. The macroinvertebrate communities at sites D2 and B were dominated by 'tolerant' taxa, with only one 'moderately sensitive' crustacean (*Isopoda*) recorded as 'rare' at site D2.

With regard to all three biotic indices, taxa richness, MCI and SQMCI scores, as well as taking account of abundances and other factors such as EPT number and percentage, there seems to be a general decline in a downstream fashion between sites A to D2. Particularly, sites B and D2 (the sites on either side of the SH3) showing significant decline in macroinvertebrate health, compared to sites A and A2. However, there is some improvement in macroinvertebrate health in a downstream direction between sites B and D2 and the furthestmost sites E and F.



Figure 19 Taxa number, MCI scores and SQMCI scores for each site, 4 January 2023

16.2.2.2 March 2023 survey

The Mangati Stream sites had low to moderate macroinvertebrate community taxa richness, with the three uppermost sites recording between 15 and 18 taxa, and the downstream sites between six to 10 taxa. MCI scores indicated that the surveyed reach was generally in either 'fair' or 'poor' macroinvertebrate community health, except for sites D2 and E which were in 'very poor' health. There was a significant decline of 17 units between site A1 and site A3, a further significant decline of 13 units between sites B and D2, followed by a significant increase of 13 units between sites E and F. The 'very poor' MCI score at site D2 indicates that this site had experienced poor preceding water quality.

SQMCI scores indicated 'fair' macroinvertebrate community health at the control site A and site A1, 'very poor' health at site A2, and 'poor' health at the five remaining sites. The SQMCI score at site A2 was two categories worse than the respective MCI score, with the SQMCI score indicating "very poor" macroinvertebrate community health, while the MCI score indicated "fair" health. The macroinvertebrate community at site A2 was dominated by low scoring Oligochaeta worms, which contributed to the lowered SQMCI at this site.

EPT taxa comprise the pollution sensitive mayfly, stonefly and caddisfly groups. The number of EPT taxa declined in a downstream direction with four, four, three, zero, zero, zero, one and one EPT taxa found at sites A, A2, A1, A3, B, D2, E and F, respectively, with the percentage of EPT taxa being 27%, 22%, 18%, 0%, 0%, 0%, 13% and 11%, respectively.

The macroinvertebrate communities at the five furthestmost downstream sites were dominated by 'tolerant' taxa, particularly by the 'tolerant' snail (*Potamopyrgus*). An increase in macroinvertebrate community health was recorded at the furthestmost downstream site (site F), with three moderately tolerant taxa recorded at this site. The results of this survey in respect to community composition are largely congruent with past results.

With regard to all three biotic indices, taxa richness, MCI and SQMCI scores, as well as taking account of abundances and other factors such as EPT number and percentage, there seems to be a general decline in a downstream direction between sites A to E. However, there is some improvement in macroinvertebrate health in a downstream direction between the furthestmost sites E and F. The Mangati catchment is complex in terms of potential pollution sources and has been the subject of numerous issues throughout the catchment. Therefore, there may be multiple sources of pollution causing macroinvertebrate health declines.



Figure 20 Taxa number, MCI scores and SQMCI scores for each site, 7 March 2023

17 Discussion

17.1 Discussion of site performance

A total of 32 compliance monitoring site visits were made to consent holders in the Mangati Catchment during the monitoring year under review. None of the routine site inspections resulted in non-compliance. In general, sites were found to be relatively clean and well-maintained. General housekeeping, site sweeping, bunding requirements, drain cleaning and sediment controls were the most frequently mentioned areas requiring attention as noted by inspecting officers. Staff onsite were generally compliant and carried out required works in appropriate timeframes. Spills, sheens, and leaks noted onsite were dealt with at the time of each visit, and consent holders undertook upgrades and/or repairs to equipment and plant on each site as required. These works included installation of new sediment treatment systems, upgrading or replacing chemical storage facilities, and regular updating of site stormwater management and spill contingency plans.

However, three samples collected during discharge monitoring runs were in exceedance of total suspended solids and some follow up action was warranted as a result of these non-compliances:

- Barton was issued an abatement notice and sent a letter requesting explanation due to a breach of suspended solid concentration in the stormwater discharge. An explanation was received.
- MCK was sent a letter requesting explanation due to a breach of suspended solid concentration in the stormwater discharge. An explanation was received.
- Nexans was issued an abatement notice due to exceedance of suspended solid in the stormwater and pH measured outside of the allowable range. Nexans explained that even though the consent was in their name at the time, they were not occupying the site at the time of the exceedance, as the landlord was conducting maintenance concrete work in between site occupiers. The abatement notice was therefore cancelled.
- Tegel Feedmill provided an explanation during a site inspection for why the yard was not well maintained. This lack of maintenance was reflected in the discharge sample taken on the same day. Tegel Feedmill advised a new contractor was in the process of being engaged.

The non-compliances listed above happened at the end of the monitoring year. No follow up sampling or inspection could be done during the 2022-2023 monitoring year. Compliance will be assessed in the 2023-2024 monitoring year.

The site performance for each of the consent holders during the year was of an acceptable standard, and is reflected in the low volume of public complaints and incidents recorded for this catchment (zero complaints related to the monitored consent holders received over the 12-month monitoring period). However, one incident was reported.

A complaint was received concerning hydrocarbons in the Mangati Stream at Bell Block. Initial investigation could not find any hydrocarbons. However, during unrelated monitoring in the following days, it was found that there was a significant amount of oil in the water ponds at the end of the industrial catchment. New Plymouth District Council undertook clean-up of the product in the ponds. Despite an extensive investigation being undertaken upstream of the ponds, the source of the incident could not be confirmed.

17.2 Environmental effects of exercise of consents

Council water quality surveys of the Mangati Stream showed that the concentrations of contaminants were generally relatively stable throughout the length of the catchment. The primary contaminants of concern were metals and metalloids, nutrients (nitrogen and phosphorus), suspended sediment, and biological oxygen demand.

Metals and metalloid concentrations fluctuated throughout the catchment, and in-stream values were closely related to proximity to the source (site stormwater discharges). All results for the period under review were within acute and chronic toxicity guidelines. Dissolved copper and dissolved zinc concentrations were close to the lowest concentrations found at any time within the last ten years.

Suspended solids, commonly sourced from yard dust and vehicle tracking, were the most frequently found contaminant of concern in site stormwater discharges, along with BOD concentrations. Samples collected from surface water sites, however, did not show any significant visual or chemical effects related to site discharges, indicating they were not having any measureable impact on the waterways. During the current monitoring period suspended solids were elevated in the middle of the catchment when compared to sites sampled above and below the industrial area. BOD concentration increased throughout the catchment.

Based on the results from the recent fish survey, there was no conclusive evidence to signify that there had been any significant discharge in the Bell Block area between the three survey locations.

The macroinvertebrate health was generally 'poor' from site A1 onwards in a downstream direction in the Mangati Stream. Additionally, there was likely to have been discharge(s) below site A3 that had a significant negative impact on the macroinvertebrate communities present in the Mangati Stream, particularly at sites B and D2. In the March survey, some improvement in macroinvertebrate health in a downstream direction between the furthestmost sites E and F was observed.

17.3 Evaluation of performance

Tabular summaries of each consent holders' compliance record for the period under review are set out in their individual sections of this report.

17.4 Recommendations from the 2021-2022 Annual Report

In the 2021-2022 Annual Report, it was recommended:

1. THAT in the first instance, the monitoring of the consented activities at Barton Holdings Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
2. THAT the monitoring of the consented activities at First Gas Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
3. THAT the monitoring of the consented activities at Greymouth Petroleum Acquisitions Company Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
4. THAT the monitoring of the consented activities at J Swap Contractors Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
5. THAT, the monitoring of the consented activities at McKechnie Aluminium Solutions Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
6. THAT the monitoring of the consented activities at New Plymouth District Council in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
7. THAT the monitoring of the consented activities at Nexans New Zealand Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
8. THAT the monitoring of the consented activities at OMV New Zealand Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
9. THAT the monitoring of the consented activities at Schlumberger New Zealand Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022, and that the conditions for both consents be combined into consent 6032.
10. THAT the monitoring of the consented activities at Tasman Oil Tools Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.

11. THAT the monitoring of the consented activities at Tegel Foods Limited (feedmill) in the 2022-2023 year continues at a similar level to that programmed for 2021-2022, with the triennial deposition gauging next due in 2024-2025.
12. THAT the monitoring of the consented activities at Tegel Foods Limited (poultry processing plant) in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
13. THAT the monitoring of the consented activities at MOVE Freight Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
14. THAT the monitoring of the consented activities at W Abraham Limited in the 2022-2023 year continues at a similar level to that programmed for 2021-2022.
15. That the option for a review of resource consents 2335-4 and 3470-4 in June 2023, as set out in conditions of the consents, not be exercised, on the grounds that the current conditions are adequate.
16. THAT should there be issues with environmental or administrative performance at any of the sites in 2022-2023, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

These recommendations were implemented as appropriate.

17.5 Alterations to monitoring programme for 2023-2024

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

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

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

It is proposed that the monitoring programmed for all consented discharges in the Mangati Catchment in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.

It should be noted that the proposed programme represents a reasonable and risk-based level of monitoring for the sites in question. The Council reserves the right to subsequently adjust the programme from that initially prepared, should the need arise if potential or actual non-compliance is determined at any time during 2023-2024.

17.6 Exercise of optional review of consent

Resource consents 2335-4 and 3470-4 provide for an optional review of the consents in June 2023. Condition 11 and 9, respectively, allow 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.

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.

18 Summary of recommendations

1. THAT in the first instance, the monitoring of the consented activities at **Barton Holdings Limited** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
2. THAT the monitoring of the consented activities at **First Gas Limited** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
3. THAT the monitoring of the consented activities at **Greymouth Petroleum Acquisitions Company Limited** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
4. THAT the monitoring of the consented activities at **J Swap Contractors Limited** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
5. THAT the monitoring of the consented activities at **McKechnie Aluminium Solutions Limited** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
6. THAT the monitoring of the consented activities at **New Plymouth District Council** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
7. THAT the sampling sites STW001010 and STW001012 are to be removed from the monitoring programme.
8. THAT the sampling sites STW001011 and STW001025 are to be relocated to a safer and more accessible location.
9. THAT the monitoring of the consented activities at **Nexans New Zealand Limited** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
10. THAT the monitoring of the consented activities at **Schlumberger New Zealand Limited** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
11. THAT the monitoring of the consented activities at **Tasman Oil Tools Limited** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
12. THAT the monitoring of the consented activities at **Tegel Foods Limited (Feedmill)** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
13. THAT the monitoring of the consented activities at **Tegel Foods Limited (Poultry Processing Plant)** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
14. THAT the monitoring of the consented activities at **MOVE Freight Limited** in the 2023-2024 year continues at a similar level to that programmed for 2022-2023.
15. THAT the sampling site STW001132 is to be relocated to a safer and more accessible location.
16. THAT the number of inspections of the consent activities at **W Abraham Limited** in the 2023-2024 monitoring year are to be reduced from four to two in recognition of the high level of environmental performance over recent years.
17. THAT should there be issues with environmental or administrative performance at any of the sites in 2023-2024, monitoring may be adjusted to reflect any additional investigation or intervention as found necessary.

Glossary of common terms and abbreviations

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

Al*	aluminium
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
BODCF	filtered carbonaceous biochemical oxygen demand. A measure of the presence of dissolved degradable organic matter, excluding the biological conversion of ammonia to nitrate
Bund	a wall around a tank to contain its contents in the case of a leak
CDS	condensed distiller's syrup. A dark brown syrupy liquid with similar consistency to runny honey, which is the liquid fraction that remains after grains (principally wheat) have been fermented in the process of producing bio-ethanol in combination with yeasts and enzymes
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 25 °C and expressed in mS/m
Cu*	copper
DO	dissolved oxygen
DRP	dissolved reactive phosphorus
<i>E.coli</i>	<i>escherichia coli</i> , an indicator of the possible presence of faecal material and pathological micro-organisms. Usually expressed as colony forming units per 100 millilitre sample
<i>Ent</i>	<i>enterococci</i> , an indicator of the possible presence of faecal material and pathological micro-organisms. Usually expressed as colony forming units per 100 millilitre of sample
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/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
IBC	1,000 L intermediate bulk container
Incident	an event that is alleged or is found to have occurred that may have actual or potential environmental consequences or may involve non-compliance with a consent or rule in a regional plan. Registration of an incident by the Council does not automatically mean such an outcome had actually occurred

Intervention	action/s taken by Council to instruct or direct actions be taken to avoid or reduce the likelihood of an incident occurring
Investigation	action taken by Council to establish what were the circumstances/events surrounding an incident including any allegations of an incident
Incident register	Incident register entry- 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
LMP	liquid mud plant
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
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)
NNN	total nitrate and nitrite nitrogen, expressed in terms of the mass of nitrogen (N)
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
RFWP	Regional Freshwater Plan for Taranaki
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
SQMCI	semi quantitative macroinvertebrate community index. MCI with taxa abundance factored in

Swarf	fine chips or filings of metal, stone, or other material produced by a machining operation
Temp	temperature, measured in °C (degrees Celsius)
Turb	turbidity, expressed in NTU or FNU
USEPA	The United States Environmental Protection Agency
XLPE	cross linked polyethylene, which is hydronic tubing that is manufactured from polyethylene plastic with a three dimensional molecular bond that is created within the structure of the plastic
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 an Environment Quality Manager.

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Appendix I

Resource consents held by industries in the Mangati catchment (alphabetical order)

(For a copy of the signed resource consent
please contact the TRC Consents department)

Water abstraction permits

Section 14 of the RMA stipulates that no person may take, use, dam or divert any water, unless the activity is expressly allowed for by a resource consent or a rule in a regional plan, or it falls within some particular categories set out in Section 14. Permits authorising the abstraction of water are issued by the Council under Section 87(d) of the RMA.

Water discharge permits

Section 15(1)(a) of the RMA stipulates that no person may discharge any contaminant into water, unless the activity is expressly allowed for by a resource consent or a rule in a regional plan, or by national regulations. Permits authorising discharges to water are issued by the Council under Section 87(e) of the RMA.

Air discharge permits

Section 15(1)(c) of the RMA stipulates that no person may discharge any contaminant from any industrial or trade premises into air, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Permits authorising discharges to air are issued by the Council under Section 87(e) of the RMA.

Discharges of wastes to land

Sections 15(1)(b) and (d) of the RMA stipulate that no person may discharge any contaminant onto land if it may then enter water, or from any industrial or trade premises onto land under any circumstances, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Permits authorising the discharge of wastes to land are issued by the Council under Section 87(e) of the RMA.

Land use permits

Section 13(1)(a) of the RMA stipulates that no person may in relation to the bed of any lake or river use, erect, reconstruct, place, alter, extend, remove, or demolish any structure or part of any structure in, on, under, or over the bed, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Land use permits are issued by the Council under Section 87(a) of the RMA.

Coastal permits

Section 12(1)(b) of the RMA stipulates that no person may erect, reconstruct, place, alter, extend, remove, or demolish any structure that is fixed in, on, under, or over any foreshore or seabed, unless the activity is expressly allowed for by a resource consent, a rule in a regional plan, or by national regulations. Coastal permits are issued by the Council under Section 87(c) of the RMA.

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

Name of
Consent Holder: Barton Holdings Limited
PO Box 7021
Fitzroy
New Plymouth 4341

Decision Date: 31 May 2011

Commencement Date: 31 May 2011

Conditions of Consent

Consent Granted: To discharge stormwater into the Mangati Stream

Expiry Date: 1 June 2026

Review Date(s): June 2020 and/or within 3 months of receiving notification
under special condition 10

Site Location: 21 Paraite Road, Bell Block

Grid Reference (NZTM) 1699288E-5678418N

Catchment: Mangati

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

General condition

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

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. The stormwater discharged shall be from a catchment area not exceeding 0.464 ha.
3. By 31 July 2011 all stormwater from the loading/unloading areas shall be directed through the stormwater diversion system.
4. Any significant volumes of hazardous substances [e.g. bulk fuel, liquid stock feeds] on site shall be:
 - a) contained in a double skinned tank, or
 - b) stored in a dedicated bunded area with drainage to sumps, or to other appropriate recovery systems, and not directly to the site stormwater system.
5. Constituents of the discharge shall meet the standards shown in the following table.

Constituent	Standard
pH	Within the range 6.0 to 9.0
suspended solids	Concentration not greater than 100 gm ⁻³
oil and grease	Concentration not greater than 15 gm ⁻³
5 day total biochemical oxygen demand	Concentration not greater than 25 gm ⁻³
total available chlorine	1 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.

6. After allowing for reasonable mixing, within a mixing zone extending 20 metres downstream of the discharge point, the discharge shall not, either by itself or in combination with other discharges, give rise to any or all of the following effects in the receiving water:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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.
7. After allowing for reasonable mixing, within a mixing zone extending 20 metres downstream of the discharge point, the discharge shall not, either by itself or in combination with other discharges, give rise to a filtered carbonaceous biochemical oxygen demand in the Mangati Stream exceeding 2 gm⁻³.

8. By 31 July 2011 the consent holder shall provide, and thereafter maintain, a satisfactory 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. By 31 July 2011 the consent holder shall provide, and thereafter maintain, a satisfactory stormwater management plan. This plan shall be adhered to at all times and shall, to the satisfaction of the Chief Executive, Taranaki Regional Council document how the site is to be managed in order to minimise the contaminants that become entrained in the stormwater. The plan shall include but not necessarily be limited to:
 - a) the loading and unloading of materials;
 - b) maintenance of conveyance systems;
 - c) general housekeeping; and
 - d) management of the interceptor systems.

A Stormwater Management Plan template is available in the Environment section of the Taranaki Regional Council's web site www.trc.govt.nz.

10. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes to the processes or operations undertaken at the site, or the chemicals used or stored on site, that could alter the nature of the discharge. Any such change shall then only occur following receipt of any necessary approval under the Resource Management Act. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and be emailed to worknotification@trc.govt.nz.
11. This consent shall lapse on 30 June 2016, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
12. 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:
 - a) during the month of June 2014 and/or June 2020; and/or
 - b) within 3 months of receiving a notification under special condition 10 above;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.

Transferred at Stratford on 6 April 2018

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: First Gas Limited
Private Bag 2020
New Plymouth 4342

Decision Date: 17 December 2015

Commencement Date: 17 December 2015

Conditions of Consent

Consent Granted: To discharge stormwater and vehicle wash water to the Mangati Stream

Expiry Date: 1 June 2032

Review Date(s): June 2020, June 2026

Site Location: 38-48 Connett Road West, Bell Block

Legal Description: Lot 1 DP 12815 (discharge source and discharge point 3)
Lot 4 & 5 DP 12815 (discharge points 1 and 2)

Grid Reference (NZTM) 1699708E-5678603N (discharge point 1 to NPDC system)
1699629E-5678680N (discharge point 2 to receiving water via NPDC ponds)
1699809E-5678503N (discharge 3 point to receiving water)

Catchment: Mangati

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

General condition

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

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. The stormwater discharged shall be from an area not exceeding 4 hectares.
3. Within 12 months of the commencement of this consent the consent holder shall install a treatment system that will treat the vehicle wash water to meet the standards shown in the following table.

Constituent	Standard
pH	Within the range 6.0 to 9.0
suspended solids	Concentration not greater than 100 gm ⁻³
oil and grease	Concentration not greater than 15 gm ⁻³

4. Prior to leaving the property the constituents of all stormwater discharges shall meet the standards shown in the following table.

Constituent	Standard
pH	Within the range 6.0 to 9.0
suspended solids	Concentration not greater than 100 gm ⁻³
oil and grease	Concentration not greater than 15 gm ⁻³

5. The consent holder shall sample the treated wash water at intervals not exceeding 6 months and analyse the samples for pH, suspended solids, biochemical oxygen demand, filtered biochemical demand, and oil and grease within 24 hours of the sample being taken. The consent holder shall supply the results of the sampling required, to the Chief Executive of the Taranaki Regional Council within 20 working days of the sampling.
6. After allowing for reasonable mixing, within a mixing zone extending 30 metres downstream of the discharge point, the discharge shall not, either by itself or in combination with other discharges, give rise to any or all of the following effects in the receiving water:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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.

Consent 4780-2.0

7. The consent holder shall maintain and regularly update a 'Contingency Plan' that details measures and procedures that will be undertaken to prevent, and to avoid environmental effects from, a spillage or any discharge of contaminants not authorised by this consent. The plan shall be approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity.
8. The site shall be operated in accordance with a 'Stormwater Management Plan' prepared by the consent holder and approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The plan shall detail how the site is to be managed to minimise the contaminants that become entrained in the stormwater and shall include as minimum:
 - a) the loading and unloading of materials;
 - b) storage of hazardous chemical;
 - c) wash water sampling and analysis procedures;
 - d) scheduling of wash water sampling;
 - e) general housekeeping; and
 - f) management and maintenance of the vehicle wash bay treatment system.
9. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes to the processes or operations undertaken at the site, or the chemicals used or stored on site that could alter the nature of the discharge. Any such change shall then only occur following receipt of any necessary approval under the Resource Management Act. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and be emailed to consents@trc.govt.nz.
10. 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:
 - a) during the month of June 2020 and/or June 2026; and/or
 - b) within 3 months of receiving a notification under special condition 9 above;
 - c) within 12 months of the installation of the vehicle wash treatment system.

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.

Transferred at Stratford on 20 June 2016

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: Greymouth Petroleum Acquisition Company Limited
PO Box 3394
New Plymouth 4341

Decision Date (Review): 6 August 2020

Commencement Date 6 August 2020 (Granted Date: 1 June 2010)
(Review):

Conditions of Consent

Consent Granted: To discharge treated stormwater from a pipeyard used for the cleaning and storage of casing and drilling equipment, and the storage of hazardous substances, onto and into land in circumstances where it may enter the Mangati Stream

Expiry Date: 1 June 2026

Site Location: 15 De Havilland Drive, Bell Block

Grid Reference (NZTM) 1699850E-5678410N

Catchment: Mangati

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

General condition

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

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. The stormwater discharged shall be from a catchment area not exceeding 1.5 hectares.
3. All stormwater, except for that which is directed to tradewaste, shall be directed for treatment through the stormwater treatment system for discharge in accordance with the special conditions of this consent.
4. Constituents of the discharge shall meet the standards shown in the following table.

<u>Constituent</u>	<u>Standard</u>
pH	Within the range 6.0 to 9.0
suspended solids	Concentration not greater than 100 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.

5. From 1 April 2021 the consent holder shall ensure that there is always clear and safe all-weather access to a point where the discharge can be sampled to check compliance with condition 4 above.
6. After allowing for reasonable mixing, within a mixing zone extending 20 metres downstream of the point where the discharge enters water, the discharge shall not, either by itself or in combination with other discharges, give rise to any or all of the following effects in the Mangati Stream:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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.
7. All on site operations, maintenance activities and contingency measures shall be undertaken in accordance with the GMP Environmental Limited Pipeyard Environmental Management Plan dated February 2010 or any subsequent reviews.

8. The consent holder shall review the GMP Environmental Limited Pipeyard Environmental Management Plan prior to making any changes to the processes or operations undertaken at the site and/or on receiving written notice from the Taranaki Regional Council of:

- the requirement to review the Plan;
- the matters which shall be addressed within the plan review; and
- the reasons or anticipated results of the matters requiring review.

The reviewed Plan shall document all operations, maintenance activities and contingency measures and shall be submitted for approval to the Chief Executive, Taranaki Regional Council, acting in a certification capacity, at least two weeks prior to making any changes to the operations on site and/or within one month of receiving written notice of the requirement to review the Plan.

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 2014 and/or June 2020, 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 6 August 2020

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: J Swap Contractors Limited
PO Box 153
Matamata 3440

Decision Date: 7 October 2015

Commencement Date: 7 October 2015

Conditions of Consent

Consent Granted: To discharge stormwater from a transport depot into an unnamed tributary of the Mangati Stream

Expiry Date: 1 June 2032

Review Date(s): June 2020, June 2026 and in accordance with special condition 16

Site Location: 88 Corbett Road, Bell Block

Legal Description: Lot 1 DP 19102 Blk II Paritutu SD & Lot 1 DP 365852
(Discharge source & site)

Grid Reference (NZTM) 1700503E-5678062N

Catchment: Mangati

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

General condition

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

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. This includes but is not limited to the minimisation of product being tracked or spilt within the stormwater catchment areas.
2. The stormwater discharged shall be from an area not exceeding 5.2 Ha
3. All stormwater shall be directed for treatment through the stormwater treatment system for discharge in accordance with the special conditions of this permit.
4. Constituents of the discharge at a point below the manhole/scruffy dome inlet, prior to the stormwater entering the existing piped gully network (at NZTM 1700503E-5678062N), shall meet the standards shown in the following table.

<u>Constituent</u>	<u>Standard</u>
pH	Within the range 6.0 to 9.0
suspended solids	Concentration not greater than 100 gm ⁻³
oil and grease	Concentration not greater than 15 gm ⁻³
carbonaceous biochemical oxygen demand	Concentration not greater than 5.0 gm ⁻³

5. The consent holder shall maintain safe and reasonable foot access to the site described in condition 4, so that samples of the discharge may be taken.
6. At a point 20 metres downstream of the confluence with the Mangati Stream (grid reference NZTM 1699964E-5678256N) the discharge shall not cause any or all of the following effects in the receiving water:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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 and;
 - f) an unionised ammonia concentration greater than 0.025 g/m³.

7. Before 15 December 2015, the consent holder shall submit the final stormwater system design for Stage One of the proposal and preliminary proof of concept designs for all planned stages of development, to the Chief Executive, Taranaki Regional Council. The design shall be approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity, and shall:
 - a) be prepared by a suitably qualified professional engineer;
 - b) provide sufficient storage for a 1% AEP rainfall event less the pre-development flow (with allowance for climate change to 2090);
 - c) ensure that in rainfall events up to 1% AEP all discharges are made through designated detention ponds (with allowance for climate change to 2090);
 - d) ensure that discharges to the Mangati Stream are no greater than the pre-development flow rate; and
 - e) indicate how and where flow from over design events leaves the property in a controlled manner.
8. Before 31 May 2016 the consent holder shall construct Stage One of the stormwater system in accordance with the design required by condition 7.
9. As-built plans shall be certified by a Chartered Professional Engineer (CPEng) as being in accordance with the design plans certified in accordance with condition 7 and a copy of the as-built certification shall be submitted to the Chief Executive, Taranaki Regional Council, within 10 working days of completion of the works.
10. Before commencing any development beyond stage one, a final stormwater system design will be submitted to, and be approved by, the Chief Executive, Taranaki Regional Council, acting in a certification capacity, and shall:
 - a) be prepared by a suitably qualified professional engineer;
 - b) provide sufficient storage for a 1% AEP rainfall event less the pre-development flow (with allowance for climate change to 2090);
 - c) ensure that in rainfall events up to 1% AEP (with allowance for climate change to 2090) all discharges are made through designated detention ponds; and
 - d) ensure that discharges to the Mangati Stream are no greater than the pre-development flow rate.
11. As-built plans of the stormwater system for each subsequent stage of development shall be certified by a Chartered Professional Engineer (CPEng) as being in accordance with the design plans certified in accordance with condition 9 and a copy of the as-built certification shall be submitted to the Chief Executive, Taranaki Regional Council, within 10 working days of completion of the works.
12. By 15 December 2015 the site shall be operated in accordance with a 'Management Plan' prepared by the consent holder and approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The plan shall detail how the site is to be managed to minimise the contaminants that become entrained in the stormwater and shall include as minimum:
 - a) the loading and unloading of materials;
 - b) maintenance of conveyance systems;
 - c) general housekeeping;
 - d) management and maintenance of the truck wash grit trap and first flush diversion system;
 - e) the maintenance and management of all treatment systems; and
 - f) the minimisation of tracked and spilt product within stormwater catchment areas.

13. By 15 December 2015, shall submit a 'Contingency Plan' that details measures and procedures that will be undertaken to prevent, and to avoid environmental effects from, a spillage or any discharge of contaminants not authorised by this consent. The plan shall be kept up to date and be approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity.
14. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes to the processes or operations undertaken at the site, or the chemicals used or stored on site that could alter the nature of the discharge. Any such change shall then only occur following receipt of any necessary approval under the Resource Management Act 1991. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and be emailed to consents@trc.govt.nz.
15. This consent shall lapse on 31 December 2020, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
16. 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:
 - a) during the month of June 2020 and/or June 2026;
 - b) within 3 months of receiving a notification under special condition 14 above;

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 7 October 2015

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: McKechnie Aluminium Solutions Limited
Private Bag 2007
NEW PLYMOUTH 4342

Consent Granted
Date: 2 November 2007

Conditions of Consent

Consent Granted: To discharge stormwater [including cooling water] from an industrial site into an unnamed tributary of the Mangati Stream at or about (NZTM) 1699261E-5678255N

Expiry Date: 1 June 2026

Review Date(s): June 2014, June 2020

Site Location: Paraite Road, Bell Block, New Plymouth

Legal Description: Lot 1 DP 9212, Lot 1 DP 10008 & Lot 2 DP 330342

Catchment: Mangati

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 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. The exercise of this consent shall be undertaken generally in accordance with the documentation submitted in support of application 5010. In the case of any contradiction between the documentation submitted in support of application 5010 and the conditions of this consent, the conditions of this consent shall prevail.
3. The stormwater discharge shall be from a catchment not exceeding 5 hectares.
4. After allowing for a mixing zone of 10 metres, the discharge shall not give rise to any of the following effects in the receiving waters of the Mangati Stream:
 - (a) the production of any conspicuous oil or grease films, scums or foams or floatable or suspended matter;
 - (b) any conspicuous change in the 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 effect on aquatic life;
 - (f) the temperature of water shall not exceed 25°C.
5. Components of the discharge shall not exceed the following concentrations:

pH (range)	6.0-9.0
oil and grease	15 g/m ³
suspended solids	100 g/m ³
6. The consent holder shall maintain a contingency plan that details action to be taken in the event of accidental discharge or spillage of contaminants to ensure that the effects are minimised.

Consent 3139-3

7. The consent holder shall maintain a stormwater management plan detailing the management and discharge of stormwater and cooling water to ensure that any effects on the Mangati Stream are minimised. This shall include any capital works planned to be undertaken.
8. The consent holder shall comply with the procedures, requirements, obligations and all other matters specified in the management plan except with the specific agreement of the Chief Executive, Taranaki Regional Council. In the case of any contradiction between the management plan and the conditions of this consent, the conditions of this resource consent shall prevail.
9. This consent shall lapse on the expiry of five years after the date of issue of this consent, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
10. 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 2014 and/or June 2020, 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.

Transferred at Stratford on 4 March 2010

For and on behalf of
Taranaki Regional Council

Director-Resource Management

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

Name of
Consent Holder: Tegel Foods Limited
Private Bag 2015
NEW PLYMOUTH 4340

Decision Date: 16 June 2014

Commencement Date: 16 June 2014

Conditions of Consent

Consent Granted: To discharge emissions into the air from the processing of animal matter and associated processes

Expiry Date: 01 June 2032

Review Date(s): June 2020, June 2026

Site Location: 91 Paraite Road, Bell Block

Legal Description: Lot 1 DP 10331 Pt Sec 14 Blk II Paritutu SD
(Discharge source & site)

Grid Reference (NZTM) 1699798E-5678097N

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

General condition

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

Special conditions

1. That at all times the consent holder shall adopt the best practicable option (as defined in section 2 of the Resource Management Act 1991) to prevent or minimise any actual or likely adverse effect on the environment associated with the discharge of contaminants into the air from the site.
2. That prior to undertaking any alterations to the plants processes, operations, equipment or layout, as specified in the original application for this consent or any subsequent application to change consent conditions, which may significantly change the nature or quantity of contaminants emitted from the site, the consent holder shall consult with the Chief Executive, Taranaki Regional Council, and shall obtain any necessary approvals under the Resource Management Act 1991 and its amendments.
3. The discharges authorised by this consent shall not give rise to an odour at or beyond the boundary of the site that is offensive or objectionable.
4. No offal or blood collected from carcasses shall be discharged to the wastewater holding pond.
5. The consent holder shall maintain and regularly update a 'Contingency Plan' that details measures and procedures that will be undertaken in the event of plant equipment failure or any other loss of processing or transportation capacity. The plan shall be approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity as being adequate to avoid, remedy or mitigate the environmental effects of such an event.
6. The site shall be operated in accordance with an 'Operations and Maintenance plan' prepared by the consent holder and approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The plan shall detail how the site will be managed to achieve compliance with the conditions of this consent and shall include but not be limited to:
 - a. The identification of key personnel responsible for managing air discharges and implementing the Operations and Maintenance;
 - b. A description of the activities on the site and the main potential sources of odour emissions;
 - c. A description of storage and treatment procedures (including specification of storage times and preservative dosing concentrations) for ensuring that only high quality raw material is processed;
 - d. The identification and description of the odour and dust mitigation measures in place;
 - e. A description of the use and maintenance of the Wastewater treatment pond;
 - f. The identification and description of relevant operating procedures and parameters that need to be controlled to minimise emissions;

- g. A description of monitoring and maintenance procedures for managing the odour mitigation measures including record keeping of control parameters and maintenance checks; and
 - h. Details of staff training proposed to enable staff to appropriately manage the odour mitigation measures.
7. 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 2020 and/or June 2026, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Signed at Stratford on 16 June 2014

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: Nexans New Zealand Limited
Private Bag 2021
New Plymouth 4342

Decision Date: 25 June 2008

Commencement Date: 25 June 2008

Conditions of Consent

Consent Granted: To discharge stormwater and cooling water from an electric wire and cable manufacturing site into the Mangati Stream

Expiry Date: 1 June 2026

Review Date(s): June 2020 and/or within 3 months of receiving a notification under special condition 10

Site Location: Paraite Road, Bell Block

Legal Description: Lot 2 DP 338778

Grid Reference (NZTM) 1699510E-5678500N

Catchment: Mangati

*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. Notwithstanding any other condition of this consent, 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. The stormwater discharges shall be from a catchment area not exceeding 6.24 hectares.
3. Any above ground hazardous substances storage areas shall be bunded with drainage to sumps, or other appropriate recovery systems, and not directly to the stormwater catchment.
4. Constituents in the discharge shall meet the standards shown in the following table.

Constituent	Standard
pH	Within the range of 6.0 to 6.9
Suspended solids	Concentration not greater than 100 gm ⁻³
Oil and grease	Concentration not greater than 15 gm ⁻³

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

5. After allowing for reasonable mixing, within a mixing zone extending 20 metres downstream of the discharge point, the discharge shall not, either by itself or in combination with other discharges, give rise to any or all of the following effects in the Mangati Stream:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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.

6. The consent holder shall maintain a contingency plan. The contingency plan shall be adhered to at all time 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.
7. The consent holder shall maintain stormwater and management plan. This plan shall be adhered to at all times and shall, to the satisfaction of the Chief Executive, Taranaki Regional Council, document how the site is to be managed in order to minimise the contaminants that become entrained in the stormwater. The plan shall include but not necessarily be limited to:
 - a) the loading and unloading of materials;
 - b) maintenance of conveyance systems;
 - c) general housekeeping; and
 - d) management of the interceptor system.
8. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes to the processes or operations undertaken at the site, or the chemicals used or stored on site, which could alter the nature of the discharge. Any such change shall then only occur following receipt of any necessary approval under the Resource Management Act. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and to be emailed to worknotification@trc.govt.nz. Notification by fax or post is acceptable if the consent holder does not have access to email.
9. This consent shall lapse on the expiry of five years after the date of issue of this consent, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
10. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review:
 - a) during the month of June 2014 and/or June 2020; and/or
 - b) within 3 months of receiving a notification under special condition 10 above;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.

Transferred at Stratford on 21 May 2015

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: OMV New Zealand Limited
PO Box 8311
New Plymouth 4310

Decision Date (Review): 6 August 2020

Commencement Date 6 August 2020 (Granted Date: 24 September 2015)
(Review):

Conditions of Consent

Consent Granted: To discharge stormwater from an industrial site into an unnamed tributary of the Mangati Stream

Expiry Date: 1 June 2032

Review Date(s): June 2026 and in accordance with special condition 9

Site Location: 29 Paraite Road, Bell Block

Grid Reference (NZTM) 1699411E-5678351M

Catchment: Mangati

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

General condition

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

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. The stormwater discharged shall be from an area not exceeding 1.08 hectares.
3. Constituents in the discharge shall meet the standards shown in the following table:

Constituent	Standard
pH	Within the range 6.0 to 9.0
Suspended solids	Concentration not greater than 100 gm ⁻³
Oil and grease	Concentration not greater than 15 gm ⁻³
Ammoniacal nitrogen	Concentration not greater than 10 gm ⁻³
BOD	Concentration not greater than 16 gm ⁻³

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

4. From 1 April 2021 the consent holder shall ensure that there is always clear and safe all-weather access to a point where the discharge can be sampled to check compliance with condition 3 above.
5. At the point 1699596E- 5678691N the discharge shall not give rise to any of the following effects in the receiving waters of the unnamed tributary of the Mangati Stream:
 - (i) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - (ii) any conspicuous change in the colour or visual clarity;
 - (iii) any emission of objectionable odour;
 - (iv) the rendering of fresh water unsuitable for consumption by farm animals;
 - (v) any significant adverse effects on aquatic life, habitats, or ecology;
 - (vi) any undesirable biological growths.
6. The consent holder shall maintain and regularly update a 'Contingency Plan' that details measures and procedures that will be undertaken to prevent, and to avoid environmental effects from, a spillage or any discharge of contaminants not authorised by this consent. The plan shall be approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity.

Consent 3913-3.1

7. The site shall be operated in accordance with a 'Management Plan' prepared by the consent holder and approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The plan shall detail how the site is to be managed to minimise the contaminants that become entrained in the stormwater and shall include as minimum:
 - a) the loading and unloading of materials;
 - b) maintenance of conveyance systems;
 - c) general housekeeping; and
 - d) management of the interceptor system.
8. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes to the processes or operations undertaken at the site that could alter the nature of the discharge. Any such change shall then only occur following receipt of any necessary approval under the Resource Management Act. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and be emailed to consents@trc.govt.nz.
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:
 - a) during the month of June 2020 and/or June 2026
 - b) within 3 months of receiving a notification under special condition 8 above;

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 6 August 2020

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: Schlumberger New Zealand Limited
PO Box 7146
New Plymouth 4341

Decision Date (Review): 27 August 2008

Commencement Date 27 August 2008 (Granted Date: 4 July 2002)
(Review):

Conditions of Consent

Consent Granted: To discharge treated washwater and stormwater from a storage and maintenance premises for oil field exploration equipment into the Mangati Stream

Expiry Date: 01 June 2020

Review Date(s): Within 3 months of receiving a notification under special conditon 2

Site Location: 94 Paraite Road, Bell Block, New Plymouth

Legal Description: Lot 2 DP 20437 Lot 2 DP 20999 Blk II Paritutu SD

Grid Reference (NZTM) 1699611E-5677951N

Catchment: Mangati

*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

Condition 1 [unchanged]

1. This consent shall be exercised in accordance with the information submitted in support of application 1914, and special conditions 3, 4 and 7 below, and to ensure the conditions of this consent are maintained.

Condition 2 [changed]

2. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes in the processes undertaken at the site, or the chemicals used or stored on site, which could alter the nature of the discharge. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and to be emailed to worknotification@trc.govt.nz. Notification by fax or post is acceptable if the consent holder does not have access to email.

Conditions 3 to 7 [unchanged]

3. The consent holder shall prepare and maintain an operation, management and maintenance plan to the satisfaction of the Chief Executive, Taranaki Regional Council, detailing the procedures in place to ensure effective performance of the washwater treatment system.
4. The consent holder shall prepare and maintain a stormwater management plan to the satisfaction of the Chief Executive, Taranaki Regional Council, controlling the items and methods by which storage in the stormwater catchment may occur.

5. The following concentrations shall not be exceeded within the discharge effluent:

Component	Concentration
pH (range)	6.0-9.0
suspended solids	100 gm ⁻³
oil and grease	15 gm ⁻³
dissolved copper	0.05 gm ⁻³
dissolved lead	0.2 gm ⁻³
dissolved zinc	0.65 gm ⁻³

This condition shall apply prior to the entry of the discharge into the receiving waters of the unnamed tributary, at a designated sampling point approved by the Chief Executive, Taranaki Regional Council.

6. After allowing for a 20 metre mixing zone extending downstream of the discharge point the discharge shall not give rise to any of the following effects in the receiving waters of the Mangati Stream:
- a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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.
7. Within three months of the granting of this consent, the consent holder shall prepare and maintain a contingency plan to the satisfaction of the Chief Executive, Taranaki Regional Council, outlining measures and procedures undertaken to prevent spillage or accidental discharge of contaminants, and procedures to be carried out should such a spillage or discharge occur.

Condition 8 [changed]

8. 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:

- a. during the month of June 2014; and/or
- b. within 3 months of receiving a notification under special condition 2 above;

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.

Condition 9 [new]

9. There shall be no discharge of wastes containing surfactants, solvents, or any other degreasing agents.

Transferred at Stratford on 10 December 2014

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: Tasman Oil Tools Limited
PO Box 3140
NEW PLYMOUTH 4312

Decision Date (Review): 05 August 2014

Commencement Date 05 August 2014 (Granted Date: 26 November 2001)
(Review):

Conditions of Consent

Consent Granted: To discharge up to 112 litres/second of stormwater including washdown water from a storage and maintenance yard for oil field drilling equipment into an unnamed tributary of the Mangati Stream

Expiry Date: 01 June 2020

Review Date(s): Within 3 months of receiving notification under special condition 4

Site Location: 13 De Havilland Drive, Bell Block

Legal Description: Lot 3 DP 14795 (Discharge source & site)

Grid Reference (NZTM) 1699760E-5678367N

Catchment: Mangati

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

General condition

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

Special conditions

1. This consent shall be exercised generally in accordance with the information submitted in support of application 1566 and to ensure the conditions of this consent are maintained.
2. The consent holder shall keep and make available to the Chief Executive, Taranaki Regional Council, upon request, records of the date, frequency and duration of all washing conducted outside the constructed washpad; such records to be kept for at least 12 months.
3. The consent holder shall notify the Chief Executive, Taranaki Regional Council 48 hrs prior to yard washings being undertaken for periods in excess of 8 hours in any seven day period.
4. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes in the processes undertaken at the site, or the chemicals used or stored on site, which could alter the nature of the discharge. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and to be emailed to worknotification@trc.govt.nz. Notification by fax or post is acceptable if the consent holder does not have access to email.
5. The stormwater treatment system shall be maintained to the satisfaction of the Chief Executive, Taranaki Regional Council.
6. The following concentrations shall not be exceeded within the discharge effluent:

Component	Concentration
pH (range)	6.0-9.0
suspended solids	100 gm ⁻³
oil and grease	15 gm ⁻³
dissolved copper	0.05 gm ⁻³
dissolved lead	0.2 gm ⁻³
dissolved zinc	0.65 gm ⁻³

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

Consent 4812-2.1

7. After allowing for a 20 metre mixing zone extending downstream of the discharge point the discharge shall not give rise to any of the following effects in the receiving waters of the Mangati Stream:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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. The consent holder shall prepare and maintain a contingency plan to the satisfaction of the Chief Executive, Taranaki Regional Council, outlining measures and procedures undertaken to prevent spillage or accidental discharge of contaminants, and procedures to be carried out should such a spillage or discharge occur.
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:
 - a. during the month of June 2014; and/or
 - b. within 3 months of receiving a notification under special condition 4 above;

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.
10. There shall be no discharge of wastes containing surfactants, solvents, or any other degreasing agents.
11. Before 30 November 2008 the consent holder shall prepare and thereafter maintain a stormwater management plan. This plan shall be adhered to at all times and shall, to the satisfaction of the Chief Executive, Taranaki Regional Council, document how the site is to be managed in order to minimise the contaminants that become entrained in the stormwater. The plan shall include but not necessarily be limited to:
 - a) on site hazardous substance storage;
 - b) general housekeeping; and
 - c) management of the interceptor systems.

Signed at Stratford on 05 August 2014

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: Tegel Foods Limited
Private Bag 2015
NEW PLYMOUTH 4340

Decision Date: 12 February 2014

Commencement Date: 12 February 2014

Conditions of Consent

Consent Granted: To discharge stormwater from a stock/poultry feed manufacturing site to the New Plymouth District Council stormwater drainage network

Expiry Date: 01 June 2026

Review Date(s): June 2017, June 2020, June 2023 and/or within 3 months of receiving a notification under special condition 10

Site Location: 39 & 57 Paraite Road, Bell Block

Legal Description: Lots 1 & 2 DP 346597 (Discharge source & site)

Grid Reference (NZTM) 1699389E-5678203N

Catchment: Mangati

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

General condition

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

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. Specifically this includes ensuring that 5 day total Biochemical Oxygen Demand (BOD) of the discharge is as low as practically achievable.
2. The stormwater discharged shall be from a catchment area not exceeding 2 hectares.
3. Constituents of the discharge shall meet the standards shown in the following table.

<u>Constituent</u>	<u>Standard</u>
pH	Within the range 6.0 to 9.0
suspended solids	Concentration not greater than 100 gm ⁻³
total recoverable hydrocarbons	Concentration not greater than 15 gm ⁻³
5 day total Biochemical Oxygen Demand (BOD) until 30 November 2014	Concentration not greater than 50 gm ⁻³
5 day total Biochemical Oxygen Demand (BOD) after 30 November 2014	Concentration not greater than 25 gm ⁻³

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

4. After allowing for reasonable mixing, within a mixing zone extending 20 metres downstream of the discharge point, the discharge shall not, either by itself or in combination with other discharges, give rise to any or all of the following effects in the receiving water:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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.
5. Before 30 November 2014, the consent holder shall empty the tank and pipe the waste water to the New Plymouth District Council's municipal trade waste system.
6. Before 1 April 2014 the consent holder shall provide, for certification by the Chief Executive of the Taranaki Regional Council, details of a performance based improvement programme outlining monitoring, trigger values, inspections, corrective actions, roles and responsibilities and performance reporting to be undertaken by the consent holder to demonstrate compliance with special condition 1.

7. A copy of the performance report required by condition 6 shall be provided to the Taranaki Regional Council by 1 July each year.
8. The consent holder shall maintain a contingency plan that details measures and procedures to be undertaken to prevent spillage or any discharge of contaminants not authorised by this consent. The contingency plan shall be followed in the event of a spill or unauthorised discharge and shall be certified by the Chief Executive, Taranaki Regional Council as being adequate to avoid, remedy or mitigate the environmental effects of such a spillage or discharge.
9. Within three months of the granting of this consent, the consent holder shall prepare and maintain a stormwater management plan that documents how the site is to be managed to minimise the contaminants that become entrained in the stormwater. This plan shall be followed at all times, shall be certified by the Chief Executive, Taranaki Regional Council, and shall include but not necessarily be limited to:
 - a) the loading and unloading of materials;
 - b) maintenance of conveyance systems;
 - c) general housekeeping; and
 - d) management of the interceptor system.

A Stormwater Management Plan template is available in the Environment section of the Taranaki Regional Council's web site www.trc.govt.nz.
10. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes to the processes or operations undertaken at the site, or the materials used or stored on site that could alter the nature of the discharge. Any such change shall then only occur following receipt of any necessary approval under the Resource Management Act. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and be emailed to consents@trc.govt.nz.
11. 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:
 - a) during the month of June 2017 and/or June 2020 and/or June 2023; and
 - b) within 3 months of receiving a notification under special condition 10 above.

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 12 February 2014

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: Tegel Foods Limited
Private Bag 2015
NEW PLYMOUTH 4340

Decision Date: 23 December 2013

Commencement Date: 23 December 2013

Conditions of Consent

Consent Granted: To discharge stormwater from a poultry processing plant site
to the New Plymouth District Council drainage network

Expiry Date: 1 June 2026

Review Date(s): June 2017, June 2020, June 2023 and in accordance with
special condition 9

Site Location: 91-95 Paraite Road, Bell Block

Legal Description: Lot 1 DP 10331 Pt Sec 14 Blk II Paritutu SD
(Discharge source & site)

Grid Reference (NZTM) 1700090E-85678021N

Catchment: Mangati

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

General condition

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

Special conditions

1. 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. Specifically this includes ensuring that 5 day total Biochemical Oxygen Demand (BOD) of the discharge is as low as practically achievable.
2. The total catchment area discharged from this consent and consent 7389-1 shall not exceed 4.3 hectares.
3. Constituents of the discharge shall meet the standards shown in the following table.

<u>Constituent</u>	<u>Standard</u>
pH	Within the range 6.0 to 9.0
suspended solids	Concentration not greater than 100 gm ⁻³
total recoverable hydrocarbons	Concentration not greater than 15 gm ⁻³
Free chlorine	Concentration not greater than 0.2 gm ⁻³
5 day total Biochemical Oxygen Demand (BOD)	Concentration not greater than 15 gm ⁻³

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

4. After allowing for reasonable mixing, within a mixing zone extending 20 metres downstream of the point of discharge to the Mangati Stream, the discharge shall not, either by itself or in combination with other discharges, give rise to any or all of the following effects in the receiving water:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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.

Consent 3470-4.0

5. Before 28 February 2014, the consent holder shall prepare and submit to the Council an accurate stormwater network analysis for the site. The analysis shall be prepared by a suitably qualified person. The stormwater network analysis shall include but not necessarily be limited to:
 - a) confirmation of the flow paths for the stormwater from the various stormwater ingress points, to the outlet points, under the different potential rainfall intensities;
 - b) the potential for deposition of solids within the stormwater system given the competing flow paths; and
 - c) the effect this may have on the preferential stormwater flow paths and stormwater quality.
6. The consent holder shall maintain a contingency plan that details measures and procedures to be undertaken to prevent spillage or any discharge of contaminants not authorised by this consent. The contingency plan shall be followed in the event of a spill or unauthorised discharge and shall be certified by the Chief Executive, Taranaki Regional Council as being adequate to avoid, remedy or mitigate the environmental effects of such a spillage or discharge.
7. The consent holder shall maintain a stormwater management plan that documents how the site is to be managed to minimise the contaminants that become entrained in the stormwater. This plan shall be followed at all times, shall be certified by the Chief Executive, Taranaki Regional Council, and shall include but not necessarily be limited to:
 - a) the loading and unloading of materials;
 - b) maintenance of conveyance systems;
 - c) general housekeeping; and
 - d) management of the interceptor system.

A Stormwater Management Plan template is available in the Environment section of the Taranaki Regional Council's web site www.trc.govt.nz.

8. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes to the processes or operations undertaken at the site, or the materials used or stored on site that could alter the nature of the discharge. Any such change shall then only occur following receipt of any necessary approval under the Resource Management Act. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and be emailed to consents@trc.govt.nz.

Consent 3470-4.0

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:
- a) during the month of June 2017 and/or June 2020 and/or June 2023;
 - b) within 3 months of providing the information required by special condition 5 above; and
 - c) within 3 months of receiving a notification under special condition 8 above.

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 23 December 2013

For and on behalf of
Taranaki Regional Council

Director-Resource Management

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

Name of
Consent Holder: Tegel Foods Limited
Private Bag 2015
New Plymouth 4340

Decision Date (Review): 6 August 2020

Commencement Date 6 August 2020 (Granted Date: 30 March 2009)
(Review):

Conditions of Consent

Consent Granted: To discharge stormwater from a poultry processing plant via
a wetland into the Mangati Stream

Expiry Date: 1 June 2026

Review Date(s): In accordance with special condition 14

Site Location: 91-95 Paraite Road, Bell Block

Grid Reference (NZTM) 1700060E-5678080N

Catchment: Mangati

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

General condition

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

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. The stormwater discharged shall be from a catchment area not exceeding 2.6 hectares.
3. All stormwater shall be directed for treatment through the stormwater treatment system, which includes a wetland of approximately 6224 m², for discharge in accordance with the special conditions of this permit. The consent holder shall regularly inspect and maintain the wetland to ensure that it provide the necessary stormwater treatment at all times.
4. Any above ground hazardous substances storage areas shall be bunded with drainage to sumps, or other appropriate recovery systems, and not directly to the stormwater catchment.
5. Constituents of the discharge from the wetland shall meet the standards shown in the following table.

Constituent	Standard
Unionised ammonia	Concentration not greater than 0.025 gm ⁻³
BOD	Concentration not greater than 15gm ⁻³
Oil and grease	Concentration not greater than 15 gm ⁻³
pH range	Within the range 6-9
Suspended solids	Concentration not greater than 100 gm ⁻³

This condition shall apply at the point at which the discharge exits the wetland, at a designated sampling point approved by the Chief Executive, Taranaki Regional Council.

6. From 1 April 2021 the consent holder shall ensure that there is always clear and safe all-weather access to a point where the discharge can be sampled to check compliance with condition 5 above .

7. The discharge, from the point at which the flow from the wetland enters the Mangati Stream, shall not, either by itself or in combination with other discharges, give rise to any or all of the following effects in the receiving water:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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. The discharge, either by itself or in combination with other discharges shall not cause the concentration of filtered carbonaceous 5 day BOD to exceed 2 gm^{-3} in the Mangati Stream.
9. The wetland shall be maintained to a standard that ensures maximum effluent treatment, to the satisfaction of the Chief Executive, Taranaki Regional Council.
10. The consent holder shall complete all fencing and riparian planting in accordance with Riparian Management Plan [RMP450] before 31 December 2010.
11. 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.
12. The consent holder shall maintain a stormwater management plan. This plan shall be adhered to at all times and shall, to the satisfaction of the Chief Executive, Taranaki Regional Council document how the site is to be managed in order to minimise the contaminants that become entrained in the stormwater. The plan shall include but not necessarily be limited to:
 - a) the loading and unloading of materials;
 - b) maintenance of conveyance systems;
 - c) general housekeeping; and
 - d) management of the interceptor system.
13. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes to the processes or operations undertaken at the site, or the chemicals used or stored on site, which could alter the nature of the discharge. Any such change shall then only occur following receipt of any necessary approval under the Resource Management Act. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and be emailed to worknotification@trc.govt.nz. Notification by fax or post is acceptable if the consent holder does not have access to email.

Consent 7389-1.2

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:

- a) during the month of June 2012 and/or June 2014 and/or June 2020; and/or
- b) within 3 months of receiving a notification under special condition 13 above;

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 6 August 2020

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: TIL Freight Limited
Private Bag 2039
New Plymouth 4342

Decision Date: 20 September 2006

Commencement Date: 20 September 2006

Conditions of Consent

Consent Granted: To discharge stormwater from a truck depot into and onto land in the vicinity of the Mangaone Stream in the Waiwhakaiho catchment

Expiry Date: 01 June 2020

Site Location: 26 Paraite Road, New Plymouth

Legal Description: Lot 1 DP 9791 & Lot 1 DP 330342

Grid Reference (NZTM) 1699110E-5678250N

Catchment: Waiwhakaiho

Tributary: Mangaone

*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 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 of the discharge on any water body.
- 2. The maximum stormwater catchment area shall be no more than 4.575 hectares.
- 3. Prior to the exercise of this consent, the consent holder shall provide for the written approval of the Chief Executive, Taranaki Regional Council, a stormwater management plan.
- 4. Prior to the exercise of this consent, the consent holder shall provide for the written approval of the Chief Executive, Taranaki Regional Council, site specific details relating to contingency planning for the truck depot.
- 5. All stormwater to be discharged under this consent shall be directed for treatment through the stormwater treatment system for discharge in accordance with the special conditions of this consent.
- 6. The design, management and maintenance of the stormwater system shall be generally undertaken in accordance with the information submitted in support of application 4350. In the case of any contradiction between the documentation submitted in support of application 4350 and the conditions of this consent, the conditions of this consent shall prevail.
- 7. Any above ground hazardous substances storage areas shall be bunded with drainage to sumps, or other appropriate recovery systems, and not to the stormwater catchment.

8. The discharge shall not give rise to any of the following effects in the receiving waters:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the colour or visual clarity;
 - c) any emission of objectionable odour;
 - d) any significant adverse effects on aquatic life.
9. The discharge onto and into land shall occur a minimum of 30 metres from any surface water body. Discharge shall be onto and into land and there shall be no direct discharge to surface water.
10. This consent shall lapse on the expiry of five years after the date of issue of this consent, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
11. 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 2008 and/or June 2014, 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.

Transferred at Stratford on 11 December 2014

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: TIL Freight Limited
Private Bag 2039
New Plymouth 4342

Decision Date: 20 April 2010

Commencement Date: 20 April 2010

Conditions of Consent

Consent Granted: To discharge stormwater from a truck depot into the Mangati Stream

Expiry Date: 01 June 2026

Review Date(s): June 2020

Site Location: 24-26 Paraite Road, Bell Block

Legal Description: Lot 1 DP 9791 Pt Lot 1 DP 330342

Grid Reference (NZTM) 1699264E-5678299N and/or 1699239E-5678364N and/or 1699149E-5678391N

Catchment: Mangati

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

General condition

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

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. The stormwater discharged shall be from a catchment area not exceeding 2.60 ha.
3. Any significant volumes of hazardous substances [e.g. bulk fuel, molasses] on site shall be:
 - a) contained in a double skinned tank, or
 - b) stored in a dedicated bunded area with drainage to sumps, or to other appropriate recovery systems, and not directly to the site stormwater system.
4. Constituents of the discharge shall meet the standards shown in the following table.

Constituent	Standard
pH	Within the range 6.0 to 9.0
suspended solids	Concentration not greater than 100 gm ⁻³
Oil & grease	Concentration not greater than 15 gm ⁻³
Biochemical oxygen demand	Concentration not greater than 7 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.

5. After allowing for reasonable mixing, within a mixing zone extending 20 metres downstream of the discharge point, the discharge shall not, either by itself or in combination with other discharges, give rise to any or all of the following effects in the Mangati Stream:
 - a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - b) any conspicuous change in the 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.
6. The consent holder shall maintain a contingency plan, which shall be reviewed at not more than 2 yearly intervals. 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.

7. The consent holder shall maintain a stormwater management plan, which shall be reviewed at not more than 2 yearly intervals. This plan shall be adhered to at all times and shall, to the satisfaction of the Chief Executive, Taranaki Regional Council document how the site is to be managed in order to minimise the contaminants that become entrained in the stormwater. The plan shall include but not necessarily be limited to:

- a) the loading and unloading of materials;
- b) maintenance of conveyance systems;
- c) general housekeeping; and
- d) management of the interceptor system.

A Stormwater Management Plan template is available in the Environment section of the Taranaki Regional Council's web site www.trc.govt.nz.

8. The consent holder shall notify the Chief Executive, Taranaki Regional Council, prior to making any changes to the processes or operations undertaken at the site, or the chemicals used or stored on site, that could alter the nature of the discharge. Any such change shall then only occur following receipt of any necessary approval under the Resource Management Act. Notification shall include the consent number, a brief description of the activity consented and an assessment of the environmental effects of any changes, and be emailed to worknotification@trc.govt.nz. Notification by fax or post is acceptable if the consent holder does not have access to email.
9. This consent shall lapse on 30 June 2015, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
10. 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:
- a) during the month of June 2012 and/or June 2014 and/or June 2020; and/or
 - b) within 3 months of receiving a notification under special condition 8 above;

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.

Transferred at Stratford on 11 December 2014

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: Nexans New Zealand Limited
Private Bag 2021
New Plymouth 4342

Decision Date: 24 February 2015

Commencement Date: 24 February 2015

Conditions of Consent

Consent Granted: To discharge emissions into the air from an electric wire and cable manufacturing plant and associated activities

Expiry Date: 1 June 2032

Review Date(s): June 2020, June 2026 and in accordance with special condition 8

Site Location: 69 Paraite Road, Bell Block

Legal Description: Lot 1 DP 435659 (Discharge source & site)

Grid Reference (NZTM) 1699564E-5678312N

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

General condition

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

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. Any discharge to air from the exercise of this consent shall not give rise to any offensive, objectionable or toxic levels of dust or odour at or beyond the boundary of the property.
3. The consent holder shall control all emissions of carbon monoxide, nitrogen dioxide, fine particles (PM₁₀) and sulphur dioxide to the atmosphere from the site, in order that the maximum ground level concentration of any of these contaminants arising from the exercise of this consent measured under ambient conditions does not exceed the relevant ambient air quality standard as set out in the Resource Management (National Environmental Standards for Air Quality Regulations, 2004) at or beyond the boundary of the property on which the site is located.
4. That the consent holder shall control all emissions to the atmosphere from the site of contaminants other than carbon dioxide, carbon monoxide, and nitrogen oxides, in order that the maximum ground level concentration for any particular contaminant arising from the exercise of this consent, measured at or beyond the boundary of the site is not increased above background levels:
 - a. by more than 1/30th of the relevant Workplace Exposure Standard-Time Weighted Average (exposure averaged over a duration as specified for the Workplace Exposure Standard-Time Weighted Average), or by more than 1/10th of the Workplace Exposure Standard-Short Term Exposure Limit over any short period of time (all terms as defined in Workplace Exposure Standards, 2010, Department of Labour); or
 - b. if no Short Term Exposure Limit is set, by more than the General Excursion Limit at any time (all terms as defined in Workplace Exposure Standards, 2010, Department of Labour).
5. Prior to undertaking any alterations to the plant, processes or operations, which may significantly change the nature or quantity of contaminants emitted to air from the site, the consent holder shall first consult with the Chief Executive, Taranaki Regional Council, and shall obtain any necessary approvals under the Resource Management Act 1991.

6. The consent holder shall maintain a permanent record of any complaints received alleging adverse effects from or related to the exercise of this consent. This record shall include the following, where practicable:
- a) the name and address of the complainant, if supplied;
 - b) date, time and details of the alleged event;
 - c) weather conditions at the time of the alleged event (as far as practicable);
 - d) investigations undertaken by the consent holder in relating to the complaint and any measures adopted to remedy the effects of the incident/complaint; and
 - e) measures put in place to prevent occurrence of a similar incident.

The consent holder shall make the complaints record available to officers of Taranaki Regional Council, on request.

7. The consent holder shall provide to the Taranaki Regional Council during November of each year, for the duration of this consent, a report reviewing any technological advances in the reduction or mitigation of emissions, how these might be applicable and/or implemented at the plant, and the costs and benefits of these advances;
8. 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:
- a) during the month of June 2020 and/or June 2026; and/or
 - b) within 3 months of any consultation under special condition 5 above;

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.

Transferred at Stratford on 21 May 2015

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: Tegel Foods Limited
Private Bag 2015
NEW PLYMOUTH

Consent Granted 23 November 2001
Date:

Conditions of Consent

Consent Granted: To discharge emissions into the air from the milling and
blending of grain and/or animal meals together with
associated activities at or about GR: P19:094-399

Expiry Date: 1 June 2020

Review Date(s): June 2008, June 2014

Site Location: 39/57 Paraite Road, Bell Block, New Plymouth

Legal Description: Lots 3 & 4 DP 11072 Blk II Paritutu SD

General conditions

- a) That on receipt of a requirement from the Chief Executive, Taranaki Regional Council (hereinafter the Chief Executive), 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; and
 - ii) charges authorised by regulations.

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.
- 2. No alteration shall be made to plant equipment or processes which may substantially alter the nature, quantity or likelihood of discharges to atmosphere without prior consultation with the Chief Executive, Taranaki Regional Council.
- 3. Within three months of the granting of this consent the consent holder shall prepare and maintain to the satisfaction of the Chief Executive, Taranaki Regional Council a management plan addressing the measures adopted to prevent an accumulation of dust within the stormwater catchment as a result of normal operations and emission incidents.
- 4. The discharge concentration of dust from any point source shall be less than 125 mg/m³ normal temperature and pressure (NTP).
- 5. The dust deposition rate beyond the property boundary arising from the discharge shall be less than 4.0 g/m²/30 days.
- 6. Any discharge to air from the premises shall not give rise to any offensive, objectionable, noxious or toxic levels of dust or odour at or beyond the boundary of the property, and in any case, suspended particulate matter shall not exceed 3 mg/m³ (measured under ambient conditions) beyond the boundary of the site.
- 7. The consent holder shall keep, and make available to the Chief Executive, Taranaki Regional Council, upon request, a record of the time, duration and cause of all dust or smoke emissions incidents having actual or potential off-site impacts.
- 8. As far as is practicable yard areas of the site shall be cleared of accumulations of dust.

Consent 4038-6

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 2008 and/or June 2014, 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 23 November 2001

For and on behalf of
Taranaki Regional Council

Director-Resource Management

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

Name of
Consent Holder: Tegel Foods Limited
Private Bag 2015
NEW PLYMOUTH 4340

Decision Date: 16 June 2014

Commencement Date: 16 June 2014

Conditions of Consent

Consent Granted: To discharge emissions into the air from the processing of animal matter and associated processes

Expiry Date: 01 June 2032

Review Date(s): June 2020, June 2026

Site Location: 91 Paraite Road, Bell Block

Legal Description: Lot 1 DP 10331 Pt Sec 14 Blk II Paritutu SD
(Discharge source & site)

Grid Reference (NZTM) 1699798E-5678097N

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

General condition

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

Special conditions

1. That at all times the consent holder shall adopt the best practicable option (as defined in section 2 of the Resource Management Act 1991) to prevent or minimise any actual or likely adverse effect on the environment associated with the discharge of contaminants into the air from the site.
2. That prior to undertaking any alterations to the plants processes, operations, equipment or layout, as specified in the original application for this consent or any subsequent application to change consent conditions, which may significantly change the nature or quantity of contaminants emitted from the site, the consent holder shall consult with the Chief Executive, Taranaki Regional Council, and shall obtain any necessary approvals under the Resource Management Act 1991 and its amendments.
3. The discharges authorised by this consent shall not give rise to an odour at or beyond the boundary of the site that is offensive or objectionable.
4. No offal or blood collected from carcasses shall be discharged to the wastewater holding pond.
5. The consent holder shall maintain and regularly update a 'Contingency Plan' that details measures and procedures that will be undertaken in the event of plant equipment failure or any other loss of processing or transportation capacity. The plan shall be approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity as being adequate to avoid, remedy or mitigate the environmental effects of such an event.
6. The site shall be operated in accordance with an 'Operations and Maintenance plan' prepared by the consent holder and approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The plan shall detail how the site will be managed to achieve compliance with the conditions of this consent and shall include but not be limited to:
 - a. The identification of key personnel responsible for managing air discharges and implementing the Operations and Maintenance;
 - b. A description of the activities on the site and the main potential sources of odour emissions;
 - c. A description of storage and treatment procedures (including specification of storage times and preservative dosing concentrations) for ensuring that only high quality raw material is processed;
 - d. The identification and description of the odour and dust mitigation measures in place;
 - e. A description of the use and maintenance of the Wastewater treatment pond;
 - f. The identification and description of relevant operating procedures and parameters that need to be controlled to minimise emissions;

- g. A description of monitoring and maintenance procedures for managing the odour mitigation measures including record keeping of control parameters and maintenance checks; and
 - h. Details of staff training proposed to enable staff to appropriately manage the odour mitigation measures.
7. 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 2020 and/or June 2026, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Signed at Stratford on 16 June 2014

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

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

Name of
Consent Holder: Tegel Foods Limited
Private Bag 2015
New Plymouth 4340

Decision Date: 24 October 2014

Commencement Date: 24 October 2014

Conditions of Consent

Consent Granted: To discharge poultry processing wastes by burial into land in the vicinity of the Mangati Stream in emergency circumstances only

Expiry Date: 01 June 2032

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

Site Location: 91 Paraite Road, Bell Block

Legal Description: Lot 1 DP 10331 Pt Sec 14 Blk II Paritutu SD (site of discharge)

Grid Reference (NZTM) 1699935E-5678077N

Catchment: Mangati

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

General condition

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

Special conditions

1. This consent shall only be exercised in an emergency situation when there are no reasonable alternatives. No discharge shall occur unless the Chief Executive, Taranaki Regional Council (or his/her delegate) has confirmed that it complies with this requirement.
2. Before exercising the consent, the consent holder shall advise the Chief Executive, Taranaki Regional Council (CETRC), of:
 - Details of the emergency,
 - Why alternative disposal methods are unavailable,
 - Estimated volume of material,
 - Location of burial pits,
 - Estimated duration of emergency,

The discharge shall than only occur after the CETRC (or his/her delegate) has confirmed that the proposed discharge complies with condition 1. In confirming that the proposal complies with condition 1, the CETRC may limit the duration or scale of the discharge and require the information listed above to be updated for the discharge to be extended

3. 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 actual or likely adverse effect on the environment associated with the discharge of contaminants from the site, including but not limited to effects on any water body or soil.
4. All burial trenches shall be located no closer than 25 metres to any surface water body.
5. All burial trenches shall be constructed so that the base is located above the level of groundwater.
6. The consent holder shall maintain records of any disposal including date, type of waste discharged, volume of waste discharged per day and the location waste was discharged, and shall make these records available to the Chief Executive, Taranaki Regional Council, upon request.

7. The consent holder shall maintain and regularly update a 'Burial Management Plan' that has been approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity. The plan shall detail how the burial will be managed to achieve compliance with the conditions of this consent and shall include as a minimum:
- a. Circumstances when the consent may be exercised,
 - b. Procedure for advising the CETRC to determine compliance with condition 1,
 - c. What information will be provided to the CETRC in order for him/her to determine compliance with condition 1,
 - d. The identification of key personnel responsible for managing and implementing the emergency burial;
 - e. The design of the burial pits; and
 - f. The area in which the burial pits can be located.
 - g. The location of pits in which material has been disposed of.
 - h. On-going management of the burial areas.

Any changes to the plan shall not take effect until they have been approved by the Chief Executive, Taranaki Regional Council, acting in a certification capacity.

8. This consent shall lapse on 01 June 2032, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
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 2020 and/or June 2026, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Signed at Stratford on 24 October 2014

For and on behalf of
Taranaki Regional Council



A D McLay
Director - Resource Management

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

Name of
Consent Holder: Tegel Foods Limited
Private Bag 2015
NEW PLYMOUTH

Consent Granted
Date: 20 May 2005

Conditions of Consent

Consent Granted: To take and use groundwater from a bore for food
processing and washdown purposes at or about GR:
P19:099-396

Expiry Date: 1 June 2038

Review Date(s): June 2008, June 2014, June 2020, June 2026, June 2032

Site Location: 91 Paraite Road, Bell Block, New Plymouth

Legal Description: Lot 1 DP 10331 Pt Sec 14 Blk II Paritutu SD

Catchment: Mangati

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 undertaken in general accordance with the documentation submitted in support of application 2939 and shall ensure the efficient and effective use of water. In the case of any contradiction between the documentation submitted in support of application 2939 and the conditions of this consent, the conditions of this consent shall prevail.
- 2. The volume of groundwater abstracted shall not exceed 3000 cubic metres per day at a rate not exceeding 35 litres per second.
- 3. The abstraction shall be managed so that the water level in the bore does not fall below 35 metres below ground level at any time.
- 4. The consent holder shall maintain a record of the abstraction including date, pumping hours and daily volume abstracted and make these records available to the Chief Executive, Taranaki Regional Council, no later than 31 July of each year, or earlier upon request.
- 5. The consent holder shall install and maintain a water meter and on the pump system, approved by the Chief Executive, Taranaki Regional Council, for the purposes of recording the abstraction.
- 6. This consent shall be subject to monitoring by the Taranaki Regional Council and the consent holder shall meet all reasonable costs associated with the monitoring.
- 7. This consent shall lapse on the expiry of five years after the date of commencement of this consent, unless the consent is given effect to before the end of that period or the Taranaki Regional Council fixes a longer period pursuant to section 125(1)(b) of the Resource Management Act 1991.
- 8. 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 2008 and/or June 2014 and/or 2020 and/or 2026 and/or 2032, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the

Consent 6357-1

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 20 May 2005

For and on behalf of
Taranaki Regional Council

Director-Resource Management

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

Name of
Consent Holder: W Abraham Limited
PO Box 4016
New Plymouth 4340

Decision Date: 11 May 2015

Commencement Date: 11 May 2015

Conditions of Consent

Consent Granted: To discharge emissions into the air from the operation of a crematorium including a natural gas-fired cremator

Expiry Date: 1 June 2032

Review Date(s): June 2020, June 2026

Site Location: 10 Swans Road, Bell Block

Legal Description: Lot 2 DP 429053 (Discharge source & site)

Grid Reference (NZTM) 1700244E-5678513N

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

General condition

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

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 actual or likely adverse effects on the environment arising from discharges to air from the site.
2. The consent holder shall undertake the activity in general accordance with the application for this consent (7147-2.0) and the application for the expired consent (7147-1.0). If there is a conflict between the applications the later application shall prevail, and if there is a conflict between the applications and consent conditions the conditions shall prevail.
3. Prior to undertaking any alterations to the plant, process, or operations, which may significantly change the nature or quantity or concentration of contaminants emitted from the site, the consent holder shall consult with the Chief Executive, Taranaki Regional Council, and shall obtain any necessary approvals under the Resource Management Act 1991 and any amendments.
4. The consent holder shall notify the Chief Executive, Taranaki Regional Council, shall at least 2 working days before any maintenance that may affect or include the calibration, monitoring, or process control of the cremators. Notification shall include the consent number and a brief description of the work to be done, and be emailed to worknotification@trc.govt.nz.
5. The consent holder shall at all times operate, maintain, supervise, monitor and control all processes so that emissions authorised by this consent are maintained at a practicable minimum.
6. The cremators and all duct work shall be maintained leak proof and gas tight to prevent the discharge of gases from the duct work or cremator, other than through the stack.
7. The stack flue and duct work leading to the stack shall be adequately insulated to avoid, as far as practicable, the condensation of liquids or the formation of soot smuts.
8. The consent holder shall take all reasonable steps to reduce and minimise the quantity of materials (such as PVC, metals, and other materials listed in the guidelines published by the Australasian Cemeteries and Crematoria Association (May 2004): *Contents of coffins delivered for cremation*) combusted within the cremator.
9. The consent holder shall remove all external casket fittings containing metals or PVC prior to cremation.

Consent 7147-2.0

10. The cremator shall be interlocked so as to prevent the introduction of a coffin to the primary chamber unless the temperature in the secondary combustion zone exceeds 750°C.
11. The minimum stack height for the discharge of exhaust emissions from the cremator shall be eight metres above ground level.
12. The cremator shall be operated so that the temperature within or at the outlet from the secondary chamber exceeds 750°C at all times that a cremation is taking place (i.e. from the moment of introduction of a casket into the primary chamber). If the temperature within or at the outlet from the secondary chamber falls below 750°C while a cremation is taking place, the operator shall take all practicable steps or the controls shall be automatically set so as to return and maintain the temperature to or above 750°C.
13. The cremator shall maintain both a primary combustion and a secondary combustion zone. The secondary chamber shall be sized so as to have a minimum residence time of 1.57 seconds at 750°C. The consent holder shall provide certified 'as-built' drawings and calculations demonstrating compliance with this condition to the Chief Executive, Taranaki Regional Council, prior to exercise of the consent.
14. In any one cremation cycle not more than two one-minute averages of the opacity readings shall exceed 20% obscuration or Ringelmann Scale 1.
15. The concentration of carbon monoxide at the outlet from the secondary combustion chamber shall not exceed 100 mg/m³ (expressed at reference conditions 0°C and 101.3 kPa).
16. The consent holder shall continuously record the opacity in the exhaust gases at the outlet of the secondary chamber or exhaust ducting.
17. The consent holder shall continuously record the temperature of gases within or at the outlet of the secondary chamber.
18. The consent holder shall maintain the schedule of maintenance and calibration of the cremator including but not limited to its controlling, recording, and monitoring equipment and systems.
19. The consent holder shall control all emissions of carbon monoxide, nitrogen dioxide, fine particles (PM10) and sulphur dioxide to the atmosphere from the site, in order that the maximum ground level concentration of any of these contaminants arising from the exercise of this consent measured under ambient conditions does not exceed the relevant ambient air quality standard as set out in the Resource Management (National Environmental Standards for Air Quality Regulations, 2004) at or beyond the boundary of the property.
20. The consent holder shall control all emissions to the atmosphere from the site of contaminants other than those expressly provided for under special condition 19, in order that they do not individually or in combination with other contaminants cause a hazardous, noxious, dangerous, offensive or objectionable effect at or beyond the boundary of the property.

Consent 7147-2.0

21. The discharges authorised by this consent shall not give rise to an odour at or beyond the boundary of the site that is offensive or objectionable.
22. For the purposes of special conditions 20 and 21, without restriction, an odour shall be deemed to be offensive or objectionable if:
 - a. it is held to be so in the opinion of an enforcement officer of the Taranaki Regional Council, having regard to the duration, frequency, intensity and nature of the odour; and/or
 - b. an officer of the Taranaki Regional Council observes that an odour is noticeable, and either it lasts longer than ten (10) minutes continuously, or it occurs frequently during a single period of more than one (1) hour; and/or
 - c. no less than three individuals from at least two different properties, each declare in writing that an objectionable or offensive odour was detected beyond the boundary of the site, provided the Taranaki Regional Council is satisfied that the declarations are not vexatious and that the objectionable or offensive odour was emitted from the site at the frequency and duration specified in (b). Each declaration shall be signed and dated and include:
 - i. the individuals' names and addresses;
 - ii. the date and time the objectionable or offensive odour was detected;
 - iii. details of the duration, frequency, intensity and nature of the odour that cause it to be considered offensive or objectionable;
 - iv. the location of the individual when it was detected; and
 - v. the prevailing weather conditions during the event.
23. At the written request of the Chief Executive, Taranaki Regional Council, the consent holder shall undertake emission test on discharges from the cremator. This emission testing shall:
 - a. be undertaken for all pollutants that are requested to be tested in writing by the Chief Executive, Taranaki Regional Council, for the volumetric flow of combustion gases, and for the oxygen concentration at the exit of the secondary chambers and at the test ports;
 - a. for each sample, be conducted over a complete cremation cycle, commencing as soon typical operating conditions have achieved, ending once calcining is complete, and over a period of at least one hour; and
 - b. comprise not less than three separate samples for each type of emission test undertaken, and shall have the concentration results corrected to 0 (zero) degrees Celsius, 1 (one) atmosphere pressure and on a dry gas basis.
24. The consent holder shall provide to the Chief Executive, Taranaki Regional Council, upon request, all monitoring (including results of all tests, relevant operating parameters, raw data, all calculations, assumptions and an interpretation of the results), and calibration and process control data whether generated and held by an operator, any automated process control systems or any agent of the consent holder.

Consent 7147-2.0

25. 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 2020 and/or June 2026 for the purpose of:
- a) adding, amending or deleting any limit on discharge or ambient concentrations of any contaminant or contaminants; and/or
 - b) requiring the consent holder to adopt the best practicable option to remove or reduce any adverse effect on the environment caused by any discharge to the environment; and/or
 - c) requiring the consent holder to calibrate and/or maintain any monitoring and/or recording device to monitor combustion conditions or environmental performance of the cremator including but not limited to devices for the measurement and/or recording of oxygen and/or carbon monoxide within the secondary combustion chamber and/or exhaust stack; and/or
 - d) ensuring that the conditions are adequate to deal with any adverse effects of the discharge on the environment arising from the exercise of this consent which were 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 11 May 2015

For and on behalf of
Taranaki Regional Council

A D McLay
Director - Resource Management

Appendix II

Categories used to evaluate environmental and
administrative performance

Categories used to evaluate 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 (that is a defence under the provisions of the RMA can be established) may be excluded with regard to the performance rating applied. For example loss of data due to a flood destroying deployed field equipment.

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

Environmental Performance

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

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

For example:

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

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

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

Administrative performance

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

Good: Perhaps some administrative requirements of the resource consents were not met at a particular time, however this was addressed without repeated interventions from the Council staff. Alternatively

adequate reason was provided for matters such as the no or late provision of information, interpretation of 'best practical option' for avoiding potential effects, etc.

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

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