

Stratford District Council
Water Treatment Plants
Monitoring Programme
Annual Report
2014-2015

Technical Report 2015-57

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Executive summary

The Stratford District Council (SDC) operates three water treatment plants (WTTP's) in the Stratford district, that supply water to Stratford, Midhirst, and Toko. This report for the period July 2014 to June 2015 describes the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess SDC's environmental performance during the period under review, and the results and environmental effects of SDC's activities.

SDC holds 10 resource consents in relation to water supplies, which include a total of 60 conditions setting out the requirements that the consent holder must satisfy. The consent holder holds four consents to allow it to take and use water, three consents to discharge filter backwash, and three consents to construct and maintain in-stream structures.

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

The Council's monitoring programme for the year under review included two inspections, a review of abstraction data, and a collection of a sample from the Stratford Water Treatment Plant's (WTP) backwash pond.

During the monitoring period SDC upgraded its plant at Midhurst. As a result of the upgrade there was an issue in regard to data loss during the change-over from a manual to an automated system. Overall the upgraded plant is now performing well and transmitting abstraction data to Council databases in real time. It was also found during the period that due to structural issues at the Konini Stream weir there were some periodic exceedances in the abstraction rate from the Patea River during the low flow period. One incident was recorded as a result and a letter requiring an explanation was issued. The subsequent response was accepted.

During the year, SDC demonstrated a good level of both environmental and administrative performance.

This report includes recommendations for the 2015-2016 year.

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1. Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is the Annual Report for the period July 2014 to June 2015 by the Taranaki Regional Council (the Council) describing the monitoring programme associated with resource consents held by Stratford District Council (SDC) for its water treatment plants. SDC operates three public water treatment plants servicing the Stratford, Midhirst and Toko areas.

This report covers the results and findings of the monitoring programme implemented by the Council in respect of the consents held by SDC that relate to abstractions and discharges of water, and the maintenance of in-stream structures for its water treatment plants. This is the 18th Annual Report to be prepared by the Council to cover SDC's water abstractions, discharges and their effects.

1.1.2 Structure of this report

Section 1 of this report is a background section. It sets out general information about compliance monitoring under the RMA and the Council's obligations and general approach to monitoring sites through annual programmes, the resource consents held by SDC in relation to its water treatment plants, the nature of the monitoring programme in place for the period under review, and a description of the activities and operations conducted at SDC's water treatment plants and associated structures.

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

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

Section 4 presents recommendations to be implemented in the 2015-2016 monitoring year.

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

1.1.3 The Resource Management Act 1991 and monitoring

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

- (a) the neighbourhood or the wider community around an activity, and may include cultural and social-economic effects;
- (b) physical effects on the locality, including landscape, amenity and visual effects;
- (c) ecosystems, including effects on plants, animals, or habitats, whether aquatic or terrestrial;

- (d) natural and physical resources having special significance (for example recreational, cultural, or aesthetic);
- (e) risks to the neighbourhood or environment.

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

1.1.4 Evaluation of environmental and administrative performance

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

Environmental performance is concerned with actual or likely effects on the receiving environment from the activities during the monitoring year. **Administrative performance** is concerned with the Company's approach to demonstrating consent compliance in site operations and management including the timely provision of information to Council (such as contingency plans and water take data) in accordance with consent conditions.

Events that were beyond the control of the consent holder and unforeseeable (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 significant environmental impacts and was not obliged to issue any abatement notices or infringement notices in relation to such impacts.
- **Good:** Likely or actual adverse effects of activities on the receiving environment were negligible or minor at most. There were some such issues noted during monitoring, from self reports, or in response to unauthorised incident reports, but these items were not critical, and follow-up inspections showed they have been

dealt with. These minor issues were resolved positively, co-operatively, and quickly. The Council was not obliged to issue any abatement notices or infringement notices in relation to the minor non-compliant effects; however abatement notices may have been issued to mitigate an identified potential for an environmental effect to occur.

For example:

- High suspended solid values recorded in discharge samples, however the discharge was to land or to receiving waters that were in high flow at the time;
 - Strong odour beyond boundary but no residential properties or other recipient nearby.
- **Improvement required:** Likely or actual adverse effects of activities on the receiving environment were more than minor, but not substantial. There were some issues noted during monitoring, from self reports, or in response to unauthorised incident reports. Cumulative adverse effects of a persistent minor non-compliant activity could elevate a minor issue to this level. Abatement notices and infringement notices may have been issued in respect of effects.
 - **Poor:** Likely or actual adverse effects of activities on the receiving environment were significant. There were some items noted during monitoring, from self reports, or in response to unauthorised incident reports. Cumulative adverse effects of a persistent moderate non-compliant activity could elevate an 'improvement required' issue to this level. Typically there were grounds for either a prosecution or an infringement notice in respect of effects.

Administrative performance

- **High:** The administrative requirements of the resource consents were met, or any failure to do this had trivial consequences and were addressed promptly and co-operatively.
- **Good:** Perhaps some administrative requirements of the resource consents were not met at a particular time, however this was addressed without repeated interventions from the Council staff. Alternatively adequate reason was provided for matters such as the no or late provision of information, interpretation of 'best practical option' for avoiding potential effects, etc.
- **Improvement required:** Repeated interventions to meet the administrative requirements of the resource consents were made by Council staff. These matters took some time to resolve, or remained unresolved at the end of the period under review. The Council may have issued an abatement notice to attain compliance.
- **Poor:** Material failings to meet the administrative requirements of the resource consents. Significant intervention by the Council was required. Typically there were grounds for an infringement notice.

For reference, in the 2014-2015 year, 75% of consent holders in Taranaki monitored through tailored compliance monitoring programmes achieved a high level of

environmental performance and compliance with their consents, while another 22% demonstrated a good level of environmental performance and compliance with their consents.

1.2 Resource consents

SDC holds various resource consents for the water treatment plants and structures that it operates, including water abstraction permits, discharge permits and land use consents. These consents are listed in Table 1 and described in more detail in sections 1.3.1 to 1.3.3. Copies of all resource consents associated with the SDC water supply operations are attached to this report as Appendix I.

Table 1 Summary of consents held by SDC in relation to public water supplies

Water Treatment Plant	Consent No.	Purpose	Issue Date	Next Review	Expiry
Stratford	0068-3	To discharge up to 140 cubic metres/day of settled filter backwash water from the Stratford Municipal Water Treatment Plant via a settling pond into the Patea River	1998	-	2016
	0195-2	To take and use water from the Patea River for Stratford town water supply purposes	1998	-	2016
	1421-2	To take and use water from the Konini Stream a tributary of the Paetahi Stream in the Patea catchment for Stratford town water supply purposes	1998	-	2016
	2452-2	To dam the Konini Stream a tributary of the Paetahi Stream in the Patea catchment for the Stratford town water supply	1998	-	2016
	5353-1	To dam the Patea River for the Stratford town water supply	1998	-	2016
	6549-1	To repair and maintain an existing weir structure in the Konini Stream a tributary of the Paetahi Stream in the Patea catchment	2005	2016	2022
Midhirst	1276-3	To take water from the Te Popo Stream a tributary of the Manganui River in the Waitara catchment for Midhirst community public water supply purposes	2003	-	2021
	1331-2	To discharge treated filter backwash water from the Midhirst WTP into the Te Popo Stream in the Waitara catchment via a soak hole	1991	-	2016
Toko	1337-3	To take and use groundwater from a bore in the vicinity of the Toko Stream in the Patea catchment for Toko rural water supply purposes	2005	2016	2020
	6605-1	To discharge treated filter backwash water from the Toko WTP into the Toko Stream in the Patea catchment via soak holes	2005	2016	2020

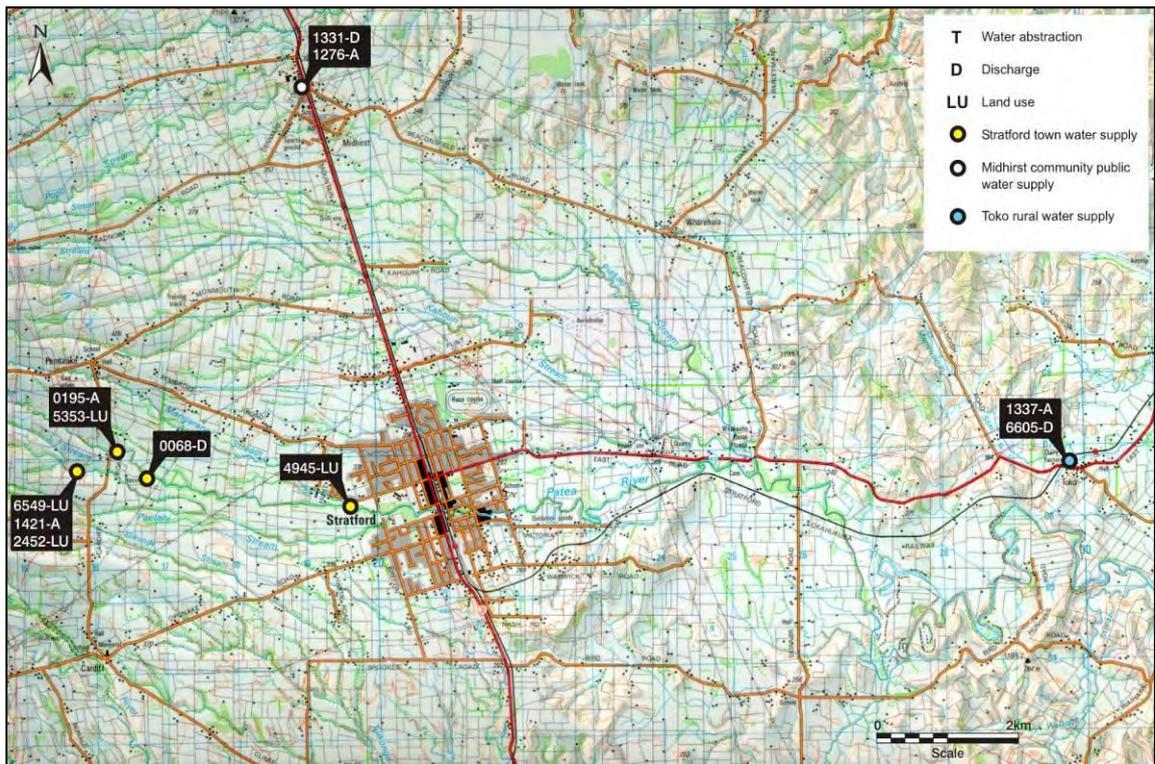


Figure 1 Location of water supply plants and structures in Stratford District

1.2.1 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 resource consent or a rule in a regional plan, or it falls within some particular categories set out in Section 14.

SDC holds water permit **1276-3** to take water from the Te Popo Stream a tributary of the Manganui River in the Waitara catchment for Midhirst community public water supply purposes. This permit was issued by the Council on 9 June 2003 under Section 87(d) of the RMA. It is due to expire on 1 June 2015. Changes were made to the consent in May 2011.

Condition 1 requires the consent to be exercised in accordance with the information submitted with the application, while condition 2 requires the adoption of the best practicable option to minimise adverse environmental effects.

Condition 3 places a limit on the rate of the abstraction. Conditions 4 and 5 set out limits for both summer and winter daily abstraction rates, while condition 6 limits the amount of water taken annually.

Condition 7 requires a report on leaks and water efficiency and conservation measures to be submitted annually.

Condition 8 requires that intake structures are screened.

Condition 9 requires the consent holder to install a measuring device and provide abstraction records to Council.

Condition 10 allows the Council to suspend or reduce abstraction at times of low flow and condition 11 is a review provision.

SDC holds water permit **1337-2** to take water from a bore in the vicinity of Toko Stream in the Patea catchment for rural water supply purposes. This permit was renewed on 17 June 2005 under Section 87(d) of the RMA. It is due to expire on 1 June 2022.

Condition 1 requires the adoption of the best practicable option to minimise adverse environmental effects.

Condition 2 requires the consent to be exercised in accordance with the information supplied in support of the application.

Condition 3 requires notification of the Council prior to exercise of the consent.

Condition 4 places limits on the volume and rate of abstraction.

Condition 5 requires the recording of daily abstraction rates and provision of abstraction data to Council.

Condition 6 is a lapse provision.

Condition 7 is a review provision.

SDC holds water permit **0195-2** to take and use water from the Patea River for Stratford town water supply purposes. This permit was issued by the Council on 27 July 1998 and was reviewed in August 2004 to clarify abstraction rates. It is due to expire on 1 June 2016.

Condition 1 requires the recording of daily abstraction rates and provision of abstraction data to Council.

Conditions 2, 3 and 4 place limits on the rate of abstraction under various conditions.

Condition 5 requires the implementation of water conservation measures when flow is at or below MALF.

Condition 6 deals with donations to the Taranaki Tree Trust for riparian management.

Condition 7 allows the Council to require the suspension or reduction of the abstraction during times of low flow.

Condition 8 is a review provision.

SDC holds water permit **1421-2** to take and use water from the Konini Stream to supplement the Stratford town water supply. This permit was issued by the Council on 20 July 1998 under Section 87(d) of the RMA and was reviewed in August 2004 to clarify abstraction rates. It is due to expire on 1 June 2016.

Condition 1 requires the recording of daily abstraction rates and provision of abstraction data to Council.

Conditions 2 and 3 place limits on the rate of abstraction under various conditions.

Condition 4 allows the Council to require the suspension or reduction of abstraction during times of low flow.

Condition 5 is a review provision.

1.2.2 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.

SDC holds water discharge permit **1331-2** to discharge treated filter backwash water from the Midhirst Water Treatment Plant into the Te Popo Stream in the Waitara Catchment via a soak hole. This permit was issued by the Council on 21 August 1991 under Section 87(e) of the RMA. The conditions were varied in September 2000 when soakholes were installed. Prior to this the backwash was discharged directly to the stream. The consent is due to expire on 1 June 2016.

Condition 1 places a limit on the discharge volume.

Condition 2 requires the proper and efficient maintenance and operation of the soakhole system.

Condition 3 specifies effects which the discharge is prohibited to cause in the receiving waters.

Condition 4 places a limit on chlorine in the discharge.

Condition 5 is a review provision.

SDC holds water discharge permit **0068-3** to discharge settled filter backwash water from the Stratford municipal WTP via a settling pond into the Patea River. This permit was issued by the Council on 24 February 1998 under Section 87(e) of the RMA. It is due to expire on 1 June 2016.

Condition 1 requires the proper and efficient maintenance and operation of the settlement pond system.

Condition 2 requires the relocation of the outlet from the settlement pond to prevent a short-circuit between the inlet and outlet.

Condition 3 specifies effects which the discharge may not cause in the receiving waters.

Condition 4 limits certain contaminants in the discharge.

Condition 5 is a review provision.

SDC holds water discharge permit **6605-1** to discharge treated filter backwash water from the Toko Water Treatment Plant into the Toko Stream in the Patea catchment via soak holes. This permit was issued by the Council on 29 April 2005 under Section 87(e) of the RMA. It is due to expire on 1 June 2022.

Condition 1 places a limit on the discharge volume.

Condition 2 requires the proper and efficient maintenance and operation of the soakhole system.

Condition 3 specifies effects which the discharge may not cause in the receiving waters.

Condition 4 limits chlorine in the discharge.

Condition 5 is a review provision.

1.2.3 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.

SDC holds land use consent **2452-2** to dam the Konini Stream in the Patea catchment for the Stratford town water supply. The consent was issued by the Council on 20 July 1998 under Section 87(a) of the RMA. It is due to expire on 1 June 2016.

Condition 1 provides for provision of fish passage.

Condition 2 requires the monitoring of the fish pass.

Condition 3 is a review provision.

SDC holds land use consent **6549-1** to repair and maintain an existing weir structure in the Konini Stream, a tributary of the Paetahi Stream in the Patea catchment. The consent was issued by the Council on 21 September 2004 under Section 87(a) of the RMA. It is due to expire on 1 July 2021.

Condition 1 requires notification of the Council prior to maintenance works.

Condition 2 prohibits in-stream works between 1 May and 31 October without prior written permission.

Conditions 3 and 4 require the adoption of the best practicable option and minimisation of adverse effects on water quality.

Condition 5 requires the consent to be exercised in accordance with the information submitted with the application.

Condition 6 prohibits erosion of the river channel.

Condition 7 specifies effects which are prohibited in the Konini Stream.

Condition 8 is a review provision.

SDC holds land use consent **5353-1** to dam the Patea River for the Stratford town water supply. This permit was issued by the Council on 20 July 1998 under Section 87(a) of the RMA. The conditions related to fish passage were changed in March 2000 to allow for research and the formulation of a decision concerning trout access to the Patea River above the weir. The consent is due to expire on 1 June 2016.

Condition 1 provides for the provision of fish passage.

Condition 2 requires satisfactory maintenance and operation of the fish pass.

Condition 3 is a review provision.

1.3 Monitoring programme

1.3.1 Introduction

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

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

The monitoring programme for SDC's water treatment plants consisted of four 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;
- in discussion over monitoring requirements;
- preparation for any reviews;
- renewals;
- new consents;
- advice on the Council's environmental management strategies and content of regional plans and;
- consultation on associated matters.

1.3.3 Site inspections

Two of the WTP's, and their associated structures, were each visited once during the monitoring period. With regard to consents for the abstraction of or discharge to water, the main points of interest were back wash discharges, intake structures and water metering equipment. Sources of data being collected by the consent holder were identified and accessed, so that performance in respect of operation, internal monitoring, and supervision could be reviewed by the Council.

1.3.4 Chemical sampling

The backwash discharge at the Stratford WTP was sampled once, and the sample analysed for chlorine (total and free available), pH, suspended solids and turbidity.

1.3.5 Data review

All of the water abstraction consents held by the SDC in regard to WTP's contain a condition which requires the SDC to keep records of abstraction volumes and make these records available to the Council upon request. Currently live data from Stratford and Midhurst plants is being telemetered to Council databases. All data is reviewed to assess compliance in regard to volumes and abstraction rates of water taken and, where available, flow conditions of the source stream or river.

2. Results

2.1 Inspections

On 5 March 2015 an annual compliance monitoring inspection of the Midhurst and Stratford was undertaken.

2.1.1 Midhurst WTP

The Te Popo Stream was running clean and clear at a low-moderate flow. The new plant was up and running and the flow meter appeared to have been installed with correct amount of straight pipe. No issues were noted however the meter would need to be verified as per national water metering regulations.

2.1.2 Stratford WTP

The Patea River was running clean and clear at a low to moderate flow. The intake weir was free of debris and no issues were noted. The backwash pond level was below the outlet pipe and no discharge was occurring. A sample was taken from the pond and found to be clean and clear with a free available chlorine of 0.07 g/m³ which was within consent limits for discharging to the Patea River.

The Konini was running clean and clear and the fish pass was free of debris and had good flow. Sand bags had been placed on the true right bank just upstream of the weir to plug the wash out noted in the last inspection. It was outlined that major headwork's for the plant were planned and that these will include the installation of compliant meters and, potentially, new weirs.



Photo 1 New Midhurst WTP

2.2 Results of discharge monitoring

A sample of the filter backwash discharge from the Stratford WTP settling pond was collected on 5 May 2015.

Table 2 Sample from backwash pond at Stratford (site STW0002034)

Parameter	Unit	Result	Consent 0068-3 limits
Free chlorine	g/m ³	0.07	0.1
pH	pH	7.4	-
Suspended solids	g/m ³	3	20
Turbidity	NTU	0.79	-

The results were in compliance with consent conditions and not likely to have adverse effects on water quality in the Patea River in the event of a discharge. The retention pond at the site is of considerable volume and generally discharges to the Patea River do not occur due to losses from evaporation and uptake from surrounding vegetation.

2.3 Abstraction data

SDC provided data from all three plants, during the monitoring period either manually or via telemetry. The data was assessed against either daily volumes and /or instantaneous take rates depending on consent conditions. A summary of compliance in regard to abstraction data is given in Table 3.

Table 3 Summary of compliance with abstraction data and abstraction limits

Site	Records supplied on time?	%Compliance daily volumes	%Compliance abstraction rate	%Completeness of data
Stratford (Patea)	Yes	N/A	>99% compliance during normal operations	100%
			70 % compliance during low flow restriction*	
Stratford (Konini)	Yes	N/A	100%	100%
Midhurst	No	100% of assessed data	100% of assessed data during normal operations	70% (data loss occurred during and after commissioning of new plant)
Toko	Yes	100%	Not assessed this period	100%

* Incident was raised due to low compliance rate
N/A= not applicable

There was an issue in regard to achieving sufficient head from the Konini weir due to water bypassing the weir (as discussed in the inspection notes). This did not allow SDC to take the full amount from the Konini Stream and subsequently this resulted in some exceedances in water abstraction rates from the Patea River during low flows. An incident was raised in regard to this and this is discussed in more detail in section 2.4. It is noted that the overtaking from the Patea River was only for a short period and that the combined abstraction limits for both takes were not exceeded.

During the monitoring period the Midhurst plant was decommissioned and recommissioned and there was a longer than expected data loss due to this. Flow metering equipment was installed however the data was not being recorded correctly. Whilst the data loss was not insignificant, such events are common during plant commissioning as has been noted throughout the region in recent years. Since November 2014 the plant has supplied data via telemetry with no data loss and it is noted to have achieved a higher level of compliance when compared to the old plant in regard to daily take volumes, abstraction rates, and completeness of data.

2.4 Investigations, interventions, and incidents

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

The Council operates and maintains a register of all complaints or reported and discovered excursions from acceptable limits and practices, including non-compliance with consents, which may damage the environment. The Incident Register (IR) includes

events where the Company concerned has itself notified the Council. The register contains details of any investigation and corrective action taken.

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

In the 2014-2015 period, the Council was required to record one incident, in association with the Company's conditions in resource consents.

During a routine review of data, on 29 April 2015, it was found that during low flow conditions, the abstraction limit of 41 litres per second (from the Patea River) had been breached on several occasions between 16 February 2015 and 5 March 2015. A 14 day letter requesting an explanation was issued and a response was received that outlined that due to structural issues at the Konini weir, insufficient head was impeding abstraction from the Konini Stream and the balance was being taken from the Patea River to maintain supply. Some works had been undertaken during summer to rectify this issue however more planned to be done. This explanation was accepted provided that works were undertaken to ensure compliance with consent conditions during the next low flow period.

3. Discussion

3.1 Discussion of SDC performance

SDC continued its capital works programme of upgrading plants and improving headworks. The commissioning of the Midhurst Plant occurred in the 2014-2015 period and this resulted in some data loss from equipment problems, however once rectified the plant supplied uninterrupted telemetered data.

Structural issues at the Konini Stream weir headworks causes a loss of head and this resulted in short periods of over abstraction from Patea during the low flow period.

3.2 Environmental effects of exercise of consents

During the period under review due to issues with the available head at the Konini Stream weir, abstraction rates from the Patea River during the low flow period were exceeded to ensure supply. It was noted that the combined take from the Patea Stream system was not exceeded and therefore the overtaking would not have exacerbated the <67% mean annual low flow conditions recorded at the Skinner Rd telemetry station. The backwash pond at the Stratford WTP rarely discharges due to the large capacity of the pond. A sample of the pond water indicated that it would not have any significant effects if it were to discharge.

The weir in the Patea River is likely to present a barrier to the passage of trout within the river. However, this effect may be beneficial in providing a trout-free reserve for native fish upstream of the weir. Consent 5353-1 required the installation of a structure at the weir that provides unrestricted passage of fish by 1 July 2005. However, as a requirement of the new consents granted for the Patea hydro-electric dam (located downstream of the weir), 'target species' juveniles are to be manually transferred into the headwaters of the Patea Catchment from the lower river. One of the release sites is located immediately upstream of the weir. The requirement for a fish pass at the weir is therefore currently on hold. The success of the upstream transfer programme will be assessed in approximately five years time, at which point, it will be determined whether this fish pass requirement should remain on hold. If the transfer of juvenile fish into the headwaters is abandoned, it is likely that a fish pass will need to be installed.

Monitoring of the Toko and Midhurst WTP's indicated that these plants were not having any adverse effects on the environment.

3.3 Evaluation of performance

A tabular summary of the SDC compliance record for the year under review is set out in Tables 4 to 12.

3.3.1 Stratford WTP

Table 4 Summary of performance for consent 0068-3

Purpose: To discharge settled filter backwash water from the Stratford municipal WTP via a settling pond into the Patea River		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Proper and efficient maintenance of settlement pond	Inspection	Yes
2. Re-location of outlet from pond to prevent short circuit between inlet and outlet within two months of granting of consent	Inspection	Yes
3. Discharge not to cause certain effects in the Patea River below the mixing zone	Sampling	Yes
4. Limits on suspended solids and chlorine in the discharge	Sampling	Yes
5. 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		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable

Table 5 Summary of performance for Consent 0195-2

Purpose: To take and use water from the Patea River for Stratford town water supply purposes		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Recording of abstraction rates and provision of data to Council	Data provided upon request	Yes
2. Limit on abstraction rates during normal flows	Data review	Yes
3. Requirement to reduce abstraction when Patea flow is less than 725 L/s	Data review	No
4. Ability to maintain maximum abstraction rate to establish reservoir storage following plant failure	Liaison with consent holder – not exercised	N/A
5. Implementation of water conservation measures when flow in Patea at or below MALF	Liaison with consent holder and monitoring of stream flows	Yes
6. Mitigation of effects by riparian planting	Planting carried out as required in previous years	Yes

Purpose: To take and use water from the Patea River for Stratford town water supply purposes		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
7. Right of Council to suspend or reduce abstraction during extreme low flows	Monitoring of flows	Not required
8. 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		High
Overall assessment of administrative performance in respect of this consent		Good

N/A = not applicable

Table 6 Summary of performance for Consent 1421-2

Purpose: To take and use water from the Konini Stream a tributary of the Paetahi Stream in the Patea catchment for Stratford town water supply purposes		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Recording of abstraction rates and provision of data to Council	Data provided upon request	Yes
2. Limit on abstraction rates	Review abstraction data	Yes
3. Implementation of water conservation measures when flow in Patea at or below MALF	Liaison with consent holder and monitoring of stream flows	Yes
4. Right of Council to suspend or reduce abstraction during extreme low flows	Monitoring of flows	Not required
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

Table 7 Summary of performance for Consent 2452-2

Purpose: To dam the Konini Stream a tributary of the Paetahi Stream in the Patea Catchment for the Stratford town water supply		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Maintenance of a fish pass at the weir	Inspection and liaison with consent holder.	Yes
2. Monitoring of effectiveness of the fish pass	Triennial fish spawning survey	Yes
3. 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		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable

Table 8 Summary of performance for Consent 5353-1

Purpose: To dam the Patea River for the Stratford town water supply		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Maintenance of a fish pass at the weir	Inspection and liaison with consent holder – no fish pass at weir. This requirement is on hold.	N/A
2. Construction of fish pass by 1 July 2005 with no disturbance of the River bed between 1 May and 31 October. Maintenance of the fish pass to the satisfaction of the Council	Inspection and liaison with consent holder. This requirement is on hold.	N/A
3. 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		N/A
Overall assessment of administrative performance in respect of this consent		N/A

N/A = not applicable

3.3.2 Midhurst WTP

Table 9 Summary of performance for Consent 1276-3

Purpose: To take water from the Te Popo Stream a tributary of the Manganui River in the Waitara catchment for Midhurst community public water supply purposes		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Exercise of consent in accordance with information submitted in support of application	Inspection and liaison with consent holder	Yes
2. Adoption of best practicable option	Inspection and liaison with consent holder	No- not all data recorded
3. Limit on abstraction rate	Abstraction data provided	Yes*
4. Average monthly rate of abstraction not to exceed 254 m ³ /day between November-March	Abstraction data provided	Yes*
5. Rate of abstraction not to exceed 432 m ³ /day between April-October	Abstraction data provided	Yes*
6. Total amount of water taken not to exceed 90,000 m ³	Abstraction data provided	Yes*

7. Annual Report on leaks and water efficiency and conservation	Report provided	Yes-but late
8. Screening of intake structures	Inspection	Yes
9. Recording of abstraction rates and provision of data to Council	Abstraction data provided	No
10. Right of Council to suspend or reduce abstraction during extreme low flows	Monitoring of flows – no extreme low flows in monitoring year	N/A
11. Optional review provision	Next option for review in June 2015, recommendation discussed in section 3.6	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		Good
Overall assessment of administrative performance in respect of this consent		Good

N/A = not applicable; Yes*= compliance only assessed on data supplied

Table 10 Summary of performance for Consent 1331-2

Purpose: To discharge treated filter backwash water from the Midhirst WTP into the Te Popo Stream in the Waitara Catchment via a soak hole		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Limit on discharge rates	Inspection not assessed this period	N/A
2. Proper and efficient maintenance of soak hole system	Inspection	Yes
3. Discharge not to cause certain effects in the Te Popo Stream below the mixing zone	Inspection	Yes
4. Limit on chlorine in discharge	Not sampled this period	N/A
5. 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		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable

3.3.3 Toko WTP

Table 11 Summary of performance for Consent 1337-3

Purpose: To take and use groundwater from a bore in the vicinity of the Toko Stream in the Patea catchment for Toko rural water supply purposes		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Adoption of best practicable option	Inspection/ Review of data	Yes
2. Consent to be exercised in accordance with the application	Inspection/ Review of data	Yes
3. Notification of Council prior to exercise of consent	Not applicable	N/A
4. Limit on abstraction rate and volume	Review abstraction data	Yes
5. Installation and operation of meter to record abstraction rates and provide data	Data provided upon request	Yes
6. Lapse provision	Not applicable	N/A
7. Optional review provision	Next option for review in June 2016	N/A
Overall assessment of consent compliance and environmental performance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

N/A = not applicable

Table 12 Summary of performance for Consent 6605-1

Purpose: To discharge treated filter backwash water from the Toko WTP into the Toko Stream in the Patea catchment via soak holes		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Limit on discharge volume	Review of data supplied	Yes
2. Maintenance and operation of soak hole system to ensure compliance with consent conditions	Not assessed this period	N/A
3. Discharge not to cause certain effects in the Toko Stream below the mixing zone	Not assessed this period	N/A
4. Limit on chlorine in the discharge	Not sampled in this monitoring period	N/A
5. Optional review provision	Next option for review in June 2016	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

During the year, the SDC demonstrated a good level of environmental and a good level of administrative performance with the resource consents as defined in Section 1.1.4. During the year under review there were some issues in regards to data loss as a result of a plant commissioning and a non-compliance in regard to water abstraction rates from the Patea River. The consent holder was cooperative in having these matter addressed.

3.4 Recommendations from the 2013-2014 Annual Report

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

1. THAT the monitoring programme for consents associated with SDC's water supply schemes in the 2014-2015 monitoring year remain unchanged from that for 2013-2014.
2. THAT the option for a review of resource consent **1276-3** in June 2015, as set out in condition 7 of the consent, not be exercised, on the grounds that the current conditions are adequate to deal with any adverse environmental effects.

These recommendations were implemented with the exception one inspection not undertaken at the Toko WTP.

3.5 Alterations to monitoring programmes for 2015-2016

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

It is proposed that for 2015-2016 that the programme remains unchanged from that of 2014-2015 with inclusion of an inspection of the Toko WTP. The triennial fish survey will next be undertaken in the 2016-2017 monitoring period.

3.6 Exercise of optional review of consent

3.6.1 Consent 6549

Resource consent 6549 provides for an optional review of the consent in June 2016. Condition 8 allows the Council to review the consent, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising 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.

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 or grounds to exercise the review option.

3.6.2 Consent 1331

Resource consent 1331 provides for an optional review of the consent in June 2016. Condition 5 allows the Council to review the consent, for the purpose of ensuring that the conditions are adequate to deal with any significant adverse effects on the environment arising from the exercise of this consent, which either were not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

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 or grounds to exercise the review option.

3.6.3 Consent 6605

Resource consent 6605 provides for an optional review of the consent in June 2016. Condition 5 allows the Council to review the consent, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising 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.

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 or grounds to exercise the review option.

4. Recommendations

1. THAT monitoring of consented activities at SDC WTP's in the 2015-2016 year continue at the same level as in 2014-2015.
2. THAT the option for a review of resource consent(s) 6459, 1331, and 6605 in June 2016 as set out in consent conditions not be exercised, on the grounds that current conditions are adequate to deal with any adverse effects on the environment arising from the exercise of these resource consent, which were either not foreseen at the time the applications were considered or which it was not appropriate to deal with at the time.

Glossary of common terms and abbreviations

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

Conductivity	Conductivity, an indication of the level of dissolved salts in a sample, usually measured at 20°C and expressed in mS/m.
Cumec	A volumetric measure of flow- 1 cubic metre per second (1 m ³ s ⁻¹).
Fresh	Elevated flow in a stream, such as after heavy rainfall.
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.
IR	The Incident Register contains a list of events recorded by the Council on the basis that they may have the potential or actual environmental consequences that may represent a breach of a consent or provision in a Regional Plan.
L/s	Litres per second.
Mixing zone	The zone below a discharge point where the discharge is not fully mixed with the receiving environment. For a stream, conventionally taken as a length equivalent to 7 times the width of the stream at the discharge point.
NTU	Nephelometric Turbidity Unit, a measure of the turbidity of water.
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).
pH	A numerical system for measuring acidity in solutions, with 7 as neutral. Numbers lower than 7 are increasingly acidic and higher than 7 are increasingly alkaline. The scale is logarithmic i.e. a change of 1 represents a ten-fold change in strength. For example, a pH of 4 is ten times more acidic than a pH of 5.
Physicochemical	Measurement of both physical properties (e.g. temperature, clarity, density) and chemical determinants (e.g. metals and nutrients) to characterise the state of an environment.
Resource consent	Refer Section 87 of the RMA. Resource consents include land use consents (refer Sections 9 and 13 of the RMA), coastal permits (Sections 12, 14 and 15), water permits (Section 14) and discharge permits (Section 15).
RMA	<i>Resource Management Act</i> 1991 and including all subsequent amendments.
Temp	Temperature, measured in °C (degrees Celsius).
Turb	Turbidity, expressed in NTU.
UI	Unauthorised Incident.

Bibliography and references

- Taranaki Regional Council, 1999a: Stratford District Council Water Supply Plants and Structures Monitoring Programme Annual Report 1997-98. Technical Report 98-83
- Taranaki Regional Council, 1999b: Stratford District Council Water Supply Structures and Operations Monitoring Programme Annual Report 1998-99. Technical Report 99-49
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- Taranaki Regional Council, 2001: Stratford District Council Water Supply Structures and Operations Monitoring Programme Annual Report 2000-2001. Technical Report 2001-50
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- Taranaki Regional Council, 2006: Stratford District Council Water Supply Plants and Structures Monitoring Programme Annual Report 2005-2006. Technical Report 2006-80
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- Taranaki Regional Council, 2009: Stratford District Council Water Supply Plants and Structures Monitoring Programme Annual Report 2007-2008. Technical Report 2008-103
- Taranaki Regional Council, 2009: Stratford District Council, Stratford, Midhirst and Toko Water Supply Schemes, Monitoring Programme Annual Report 2008-2009. Technical Report 2009-47
- Taranaki Regional Council, 2010: Stratford District Council Water Supply Schemes, Monitoring Programme Annual Report 2009-2010. Technical Report 2010-34
- Taranaki Regional Council, 2011: Stratford District Council Water Supply Schemes, Monitoring Programme Annual Report 2010-2011. Technical Report 2010-17
- Taranaki Regional Council, 2012: Stratford District Council Water Supply Schemes, Monitoring Programme Annual Report 2011-2012. Technical Report 2012-34

Taranaki Regional Council, 2013: Stratford District Council Water Supply Schemes, Monitoring Programme Annual Report 2012-2013. Technical Report 2013-30

Taranaki Regional Council, 2014: Stratford District Council Water Supply Schemes, Monitoring Programme Annual Report 2013-2014. Technical Report 2013-117

Appendix I

Resource consents held by Stratford District Council

TRK980068



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

DISCHARGE PERMIT

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

**Name of
Consent Holder:** STRATFORD DISTRICT COUNCIL
PO BOX 320 STRATFORD

**Renewal
Granted Date:** 24 February 1998

CONDITIONS OF CONSENT

Consent Granted: TO DISCHARGE UP TO 140 CUBIC METRES/DAY OF SETTLED
FILTER BACKWASH WATER FROM THE STRATFORD
MUNICIPAL WATER TREATMENT PLANT VIA A SETTLING
POND INTO THE PATEA RIVER AT OR ABOUT GR:
Q20:167-068

Expiry Date: 1 June 2016

Review Date[s]: June 2004 and June 2010

Site Location: CARDIFF ROAD STRATFORD

Legal Description: PT SEC 53A BLK I NGAERE SD

Catchment: PATEA 343.000

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

TRK980068

General conditions

- a) That on receipt of a requirement from the General Manager, Taranaki Regional Council (hereinafter the General Manager), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) That unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) That the consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i) the administration, monitoring and supervision of this consent; and
 - ii) charges authorised by regulations.

Special Conditions

- 1. THAT the consent holder shall properly and efficiently maintain and operate the settlement pond system.
- 2. THAT the consent holder shall undertake to re-locate the outlet from the settlement pond to a suitable position for the purposes of preventing a short-circuit between the inlet and outlet, and provision of improved settlement of sediment within the pond; the relocation work to be completed within two months of the granting of the consent.
- 3. THAT after allowing for a mixing zone of 50 metres downstream of the discharge, the discharge shall not give rise to any of the following effects in the Patea River:
 - 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; and
 - v) any significant adverse effects on aquatic life;
- 4. THAT the discharge quality shall not exceed the following limits at all times:

Suspended solids	20 gm ⁻³
Free available chlorine	0.1 gm ⁻³
- 5. THAT the Taranaki Regional Council may review any or all of the conditions of this consent by giving notice of review during the month of June 2004 and/or June 2010, for the purpose of ensuring that the conditions adequately deal with the environmental effects arising from the exercise of this consent, which were not foreseen at the time the application was considered and which it was not appropriate to deal with at that time.

Signed at Stratford on 24 February 1998

For and on behalf of
TARANAKI REGIONAL COUNCIL



DIRECTOR - RESOURCE MANAGEMENT



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

CHIEF EXECUTIVE
PRIVATE BAG 713
47 CLOTEN ROAD
STRATFORD
NEW ZEALAND
PHONE 06-765 7127
FAX 06-765 5097

Please quote our file number
on all correspondence

Name of
Consent Holder: Stratford District Council
P O Box 320
STRATFORD

Review Completed Date: 5 August 2004 [Granted: 20 July 1998]

Conditions of Consent

Consent Granted: To take and use water from the Patea River for Stratford town water supply purposes at or about GR: Q20:163-071

Expiry Date: 1 June 2016

Review Date(s): June 2004, June 2010

Site Location: Cardiff Road, Pembroke, Stratford

Legal Description: Road Reserve Blk I Ngaere SD

Catchment: Patea

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

www.trc.govt.nz

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 record daily rates of abstraction and shall make such records available to the Taranaki Regional Council upon request.
2. During normal operations the combined water abstraction including water from the Konini Stream [consent 1421] shall not exceed 61 litres/second and the combined maximum of 81 litres/second may only be used for temporary periods to re-establish reservoir storage following a plant failure. The consent holder shall notify the Taranaki Regional Council whenever the peak abstraction is to be exercised.
3. The consent holder shall reduce the abstraction from the Patea River to no more than 41 litres/second when the river is under mean annual low flow conditions or less, equivalent to a flow of 725 litres/second or less measured at Skinner Road [Q20:260-064].
4. Notwithstanding condition 3, the consent holder may temporarily maintain the maximum abstraction rate of 61 litres/second to establish reservoir storage following plant failure in accordance with condition 2.
5. The consent holder shall implement water conservation measures to reduce the water demand at times when the Patea River is under mean annual low flow conditions or less, equivalent to a flow of 725 litres/second or less measured at Skinner Road [Q20:260-064].
6. The consent holder shall mitigate the effects of the abstraction by promoting and undertaking riparian management in the Patea River catchment by:
 - i) a donation of \$9,000 to the Taranaki Tree Trust by 1 January 1999;
 - ii) a contribution of \$9,000 (apportioned over the term of the consent), for riparian works by the consent holder in a manner approved by the Taranaki Regional Council. Further, by 30 June 2004, any remaining funds shall be paid in full to the Taranaki Tree Trust or any other water conservation project approved by the Taranaki Regional Council.

Consent 0195-2

7. The Taranaki Regional Council reserves the right to temporarily suspend or reduce the abstraction during extreme low flow events, in order to protect the biological communities in the stream, in accordance with section 329 of the Resource Management Act 1991.
8. 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 2004 and/or 2010, 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 consent, which were not foreseen at the time the application was considered and which it was not appropriate to deal with at that time.

Signed at Stratford on 5 August 2004

For and on behalf of
Taranaki Regional Council



Director-Resource Management



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

CHIEF EXECUTIVE
PRIVATE BAG 713
47 CLOTEN ROAD
STRATFORD
NEW ZEALAND
PHONE 06-765 7127
FAX 06-765 5097

Please quote our file number
on all correspondence

Name of
Consent Holder: Stratford District Council
P O Box 320
STRATFORD

Consent Granted
Date: 9 June 2003

Conditions of Consent

Consent Granted: To take a maximum of 70,000 cubic metres of water per year, with a maximum of 254 cubic metres/day in summer [1 November to 31 March] and 432 cubic metres/day in winter [1 April to 31 October], at a maximum rate of 5 litres/second, from the Te Popo Stream a tributary of the Manganui River in the Waitara catchment for Midhirst community public water supply purposes at or about GR: Q20:190-122

Expiry Date: 1 June 2021

Review Date(s): June 2009, June 2015

Site Location: Mountain Road, Midhirst

Legal Description: Lot 7 DP 14836 Blk XIII Huiroa SD

Catchment: Waitara

Tributary: Manganui
Te Popo

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

Consent 1276-3

General conditions

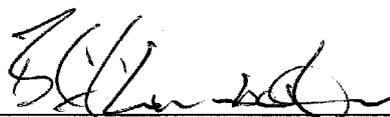
- a) On receipt of a requirement from the Chief Executive, Taranaki Regional Council (hereinafter the Chief Executive), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) Unless it is otherwise specified 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 conducted in accordance with the information submitted in support of the application and to ensure that the conditions of the consent are met at all times.
2. The consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to avoid or minimise any adverse effects on the environment as a result of the exercise of this consent.
3. The peak extraction rate shall not exceed 5 litres/second
4. All intake structures shall be screened to avoid the entrainment of fish.
5. The consent holder shall install and operate a measuring device capable of accurately recording daily rates of abstraction and shall measure, record and make such records available to the Chief Executive, Taranaki Regional Council, upon request.
6. That the Taranaki Regional Council reserves the right to temporarily suspend or reduce the abstraction during extreme low flow events, in order to protect the biological communities in the stream, in accordance with 329 of the Resource Management Act 1991.
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 2009 and/or June 2015 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 9 June 2003

For and on behalf of
Taranaki Regional Council



Chief Executive



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

Please quote our file number
on all correspondence

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

Name of
Consent Holder: Stratford District Council
P O Box 320
STRATFORD

Consent Granted
Date: 17 June 2005

Conditions of Consent

Consent Granted: To take and use groundwater from a bore in the vicinity of the Toko Stream in the Patea catchment for Toko rural water supply purposes at or about GR: Q20:298-068

Expiry Date: 1 June 2022

Review Date(s): June 2010, June 2016

Site Location: East Road, Toko

Legal Description: Lot 1 DP 15670 Blk III Ngaere SD

Catchment: Patea

Tributary: Toko

*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

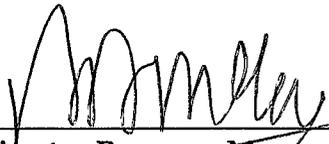
1. The consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to prevent or minimise any adverse effects on the environment from the exercise of this consent.
2. The exercise of this consent shall be undertaken generally in accordance with the documentation submitted in support of application 2743 and shall ensure efficient and effective use of water. In the case of any contradiction between the documentation submitted in support of application 2743 and the conditions of this consent, the conditions of this consent shall prevail.
3. The consent holder shall notify the Chief Executive, Taranaki Regional Council, in writing at least seven days prior to the exercise of this consent.
4. The volume of groundwater abstracted shall not exceed 80 cubic metres per day at a rate not exceeding 5.6 litres per second.
5. The consent holder shall install and operate a device capable of accurately recording daily rates of abstraction and shall measure, record and make such records available to the Chief Executive, Taranaki Regional Council, upon request.
6. 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.

Consent 1337-3

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 2010 and/or June 2016, 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 17 June 2005

For and on behalf of
Taranaki Regional Council



Director-Resource Management

TRK981421



WATER PERMIT

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

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

Name of
Consent Holder: STRATFORD DISTRICT COUNCIL
PO BOX 320 STRATFORD

Renewal
Granted Date: 20 July 1998

CONDITIONS OF CONSENT

Consent Granted: TO TAKE, DAM AND USE UP TO 1,533 CUBIC METRES/DAY
[20 LITRES/SECOND] OF WATER FROM THE KONINI
STREAM A TRIBUTARY OF THE PAETAHI STREAM IN THE
PATEA CATCHMENT TO SUPPLEMENT THE STRATFORD
TOWN WATER SUPPLY AT OR ABOUT GR: Q20:155-068

Expiry Date: 1 June 2016

Review Date[s]: June 2004 and June 2010

Site Location: CARDIFF ROAD, STRATFORD

Legal Description: DP3278 PT SEC 25 PT DP3759 PT SECS 25 & 26 BLK IV
KAUPOKONUI SD

Catchment: PATEA 343.000

Tributary: PAETAHI 343.310
KONINI 343.311

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

TRK981421

General conditions

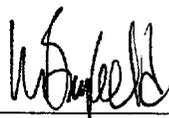
- a) That on receipt of a requirement from the General Manager, Taranaki Regional Council (hereinafter the General Manager), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) That unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) That the consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i) the administration, monitoring and supervision of this consent; and
 - ii) charges authorised by regulations.

Special conditions

1. THAT the consent holder shall record daily rates of abstraction and shall make such records available to the Taranaki Regional Council upon request.
2. THAT during normal operations the combined water abstraction including water from the Patea River (TRK980195) shall not exceed 61 litres/second and that the combined maximum of 81 litres/second may only be used for temporary periods to re-establish reservoir storage following a plant failure. The consent holder shall notify the Taranaki Regional Council whenever the peak abstraction is to be exercised.
3. THAT the consent holder shall implement water conservation measures to reduce the water demand at times when the Patea River is under mean annual low flow conditions or less, equivalent to a flow of 725 litres/second or less measured at Skinner Road (Q20:260-064).
4. THAT the Taranaki Regional Council reserves the right to temporarily suspend or reduce the abstraction during extreme low flow events, in order to protect the biological communities in the stream, in accordance with section 329 of the Resource Management Act 1991.
5. THAT the Taranaki Regional Council may review any or all of the conditions of this consent by giving notice of review during the month of June 2004 and/or June 2010, 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 consent, which were not foreseen at the time the application was considered and which it was not appropriate to deal with at that time.

Signed at Stratford on 20 July 1998

For and on behalf of
TARANAKI REGIONAL COUNCIL



DIRECTOR - RESOURCE MANAGEMENT

TRK982452

General conditions

- a) That on receipt of a requirement from the General Manager, Taranaki Regional Council (hereinafter the General Manager), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) That unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) That the consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i) the administration, monitoring and supervision of this consent; and
 - ii) charges authorised by regulations.

Special conditions

- 1. THAT the consent holder shall maintain a structure at the weir to provide for the unrestricted passage of native fish, juvenile and adult trout.
- 2. THAT the consent holder shall monitor the effectiveness of the fish pass in providing for the passage of adult trout.
- 3. THAT the Taranaki Regional Council may review any or all of the conditions of this consent by giving notice of review during the month of June 2004 and/or June 2010, 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 consent, which were not foreseen at the time the application was considered and which it was not appropriate to deal with at that time.

Signed at Stratford on 20 July 1998

For and on behalf of
TARANAKI REGIONAL COUNCIL



DIRECTOR, RESOURCE MANAGEMENT



Land Use Consent
Pursuant to the Resource Management Act 1991
a resource consent is hereby granted by the
Taranaki Regional Council

CHIEF EXECUTIVE
PRIVATE BAG 713
47 CLOTEN ROAD
STRATFORD
NEW ZEALAND
PHONE 06-765 7127
FAX 06-765 5097

Please quote our file number
on all correspondence

Name of
Consent Holder: Stratford District Council
P O Box 320
STRATFORD

Consent Granted
Date: 31 January 2005

Conditions of Consent

Consent Granted: To repair and maintain an existing weir structure in the
Konini Stream a tributary of the Paetahi Stream in the
Patea catchment at or about GR: Q20:157-068

Expiry Date: 1 June 2022

Review Date(s): June 2010, June 2016

Site Location: Cardiff Road, Cardiff, Stratford

Legal Description: Pt Secs 25 DP 3759 Blk IV Kaupokonui SD

Catchment: Patea

Tributary: Paetahi
Konini

*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 notify the Taranaki Regional Council at least 48 hours prior to the commencement and upon completion of the initial activity and again prior to and upon completion of any subsequent maintenance works which would involve disturbance of or deposition to the riverbed or discharges to water.
2. Any instream works shall take place only between 1 November and 30 April inclusive, except where this requirement is waived in writing by the Chief Executive, Taranaki Regional Council.
3. The consent holder shall adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to avoid or minimise the discharge of silt or other contaminants into water or onto the riverbed and to avoid or minimise the disturbance of the riverbed and any adverse effects on water quality.
4. The consent holder shall ensure that the area and volume of riverbed disturbance shall, so far as is practicable, be minimised and any areas which are disturbed shall, so far as practicable, be reinstated.
5. The exercise of this consent shall be under taken generally in accordance with the documentation submitted in support of application 3542. In the case of any contradiction between the documentation submitted in support of application 3542 and the conditions of this consent, the conditions of this consent shall prevail.
6. The structure[s] which are the subject of this consent shall not cause erosion of the river channel, and measures shall be taken by the consent holder to prevent erosion of the river channel.

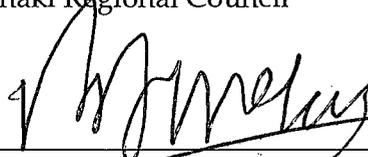
Consent 6549-1

7. After allowing for reasonable mixing, being a mixing zone extending seven times the width of the Konini Stream at the point of discharge, any discharge of contaminants shall not give rise to any of the following effects in the Konini 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. In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of this resource consent by giving notice of review during the month of June 2010 and/or June 2016, 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 31 January 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

CHIEF EXECUTIVE
PRIVATE BAG 713
47 CLOTEN ROAD
STRATFORD
NEW ZEALAND
PHONE 06-765 7127
FAX 06-765 5097

Please quote our file number
on all correspondence

Name of
Consent Holder: Stratford District Council
P O Box 320
STRATFORD

Consent Granted
Date: 29 April 2005

Conditions of Consent

Consent Granted: To discharge treated filter backwash water from the Toko Water Treatment Plant into the Toko Stream in the Patea catchment via soak holes at or about GR: Q20:298-068

Expiry Date: 1 June 2022

Review Date(s): June 2010, June 2016

Site Location: East Road, Toko

Legal Description: Lot 1 DP 15670 Blk III Ngaere SD

Catchment: Patea

Tributary: Toko

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 discharge shall not exceed 4 cubic meters per day, per soak hole.
2. The consent holder shall properly and efficiently maintain and operate the soak hole system so as to meet the conditions of this consent.
3. After allowing for reasonable mixing, with a mixing zone extending 20 meters below the discharge point, the discharge shall not give rise to any of the following effects in the Toko Stream:
 - a) the production of any conspicuous oil or grease films, scum 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, habitats, or ecology.
4. The discharge shall not exceed 0.1 g/m³ cubic meters free available chlorine at all times.

Consent 6605-1

5. 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 June 2010 and/or June 2016, for the purpose of ensuring that the conditions are adequate to deal with any adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the application was considered or which it was not appropriate to deal with at the time.

Signed at Stratford on 29 April 2005

For and on behalf of
Taranaki Regional Council



Director-Resource Management

TRK985353



LAND USE CONSENT

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

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

Name of
Consent Holder: **STRATFORD DISTRICT COUNCIL
PO BOX 320 STRATFORD**

Consent
Granted Date: **20 July 1998**

CONDITIONS OF CONSENT

Consent Granted: **TO DAM THE PATEA RIVER FOR THE STRATFORD TOWN
WATER SUPPLY AT OR ABOUT GR: Q20:163-070**

Expiry Date: **1 June 2016**

Review Date[s]: **June 2004 and June 2010**

Site Location: **CARDIFF ROAD, STRATFORD**

Legal Description: **RIVER RESERVE BLK I NGAERE SD**

Catchment: **PATEA 343.000**

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

TRK985353

General conditions

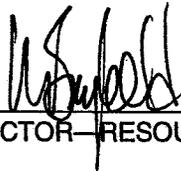
- a) That on receipt of a requirement from the General Manager, Taranaki Regional Council (hereinafter the General Manager), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- b) That unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- c) That the consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - i) the administration, monitoring and supervision of this consent; and
 - ii) charges authorised by regulations.

Special conditions

1. THAT the consent holder shall design and install a structure at the weir to provide for the unrestricted passage of native fish, juvenile and adult trout.
2. THAT the fish pass structure, required by condition 1, shall be constructed by 1 July 1999, and thereafter be maintained and operated to the satisfaction of the General Manager. In constructing the fish pass structure, there shall be no disturbance of any part of the bed covered by water between 1 May and 31 October.
3. THAT the Taranaki Regional Council may review any or all of the conditions of this consent by giving notice of review during the month of June 2004 and/or June 2010, 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 consent, which were not foreseen at the time the application was considered and which it was not appropriate to deal with at that time.

Signed at Stratford on 20 July 1998

For and on behalf of
TARANAKI REGIONAL COUNCIL



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: Stratford District Council
P O Box 320
STRATFORD 4352

Decision Date [Change]: 24 May 2011

Commencement Date [Change]: 24 May 2011 [Granted: 9 June 2003]

Conditions of Consent

Consent Granted: To take water from the Te Popo Stream a tributary of the Manganui River in the Waitara catchment for Midhirst community public water supply purposes at or about (NZTM) 1708930E-5650525N

Expiry Date: 1 June 2021

Review Date(s): June 2015

Site Location: Mountain Road, Midhirst

Legal Description: Lot 7 DP 14836 Blk XIII Huiroa SD [Site of take]

Catchment: Waitara

Tributary: Manganui
Te Popo

*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 (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) 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 conducted in accordance with the information submitted in support of application nos. 84/51, 91/162, 2233 and 6750, and to ensure that the conditions of the consent are met at all times.
2. The consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to avoid or minimise any adverse effects on the environment as a result of the exercise of this consent.
3. The peak extraction rate shall not exceed 5 litres/second.
4. The amount of water taken in summer [1 November to 31 March] shall not exceed an average of 254 cubic metres/day during any calendar month.
5. The amount of water taken in winter [1 April to 31 October] shall not exceed 432 cubic metres/day.
6. The amount of water taken during any year ending 30 June shall not exceed 90,000 m³.
7. The consent holder shall, on an annual basis, provide a report detailing:
 - a) the work done to detect and minimise leaks in the area supplied, and
 - b) water use efficiency and conservation measures undertaken in the area supplied.

The report shall be provided to the Chief Executive, Taranaki Regional Council before 1 September each year and cover the previous 1 July to 30 June period. The first report shall be provided by 1 September 2011.

8. All intake structures shall be screened to avoid the entrainment of fish.

Consent 1276-3

9. The consent holder shall install and operate a measuring device capable of accurately recording daily rates of abstraction and shall measure, record and make such records available to the Chief Executive, Taranaki Regional Council, upon request.
10. That the Taranaki Regional Council reserves the right to temporarily suspend or reduce the abstraction during extreme low flow events, in order to protect the biological communities in the stream, in accordance with 329 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 2009 and/or June 2015 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 May 2011

For and on behalf of
Taranaki Regional Council

Director-Resource Management

