

Concrete Batching Plants
Monitoring Programme
Annual Report
2014-2015
Technical Report 2015–71

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Executive summary

This report for the period July 2014 to June 2015 describes the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess the environmental performance of three concrete batching plants within the Taranaki Region, along with the results and environmental effects of their activities. The three concrete batching plants covered by this programme are located in Waitara, Hawera and Stratford.

Allied Concrete Limited (Allied Concrete) operates a concrete batching plant located on Mould Street, Waitara, in the Waitara catchment. The site operation includes the storage and mixing of cement, aggregate, sand, and builders mix.

Allied Concrete holds one resource consent, which includes a total of four conditions setting out the requirements that they must satisfy. The consent allows for the discharge of wastewater into an unnamed tributary of the Waitara River.

During the year under review, Allied Concrete demonstrated an overall high level of environmental performance.

Firth Industries is a division of Fletcher Concrete & Infrastructure Limited is hereafter referred to as Firth Industries. They operate a concrete batching plant located on Glover Road, Hawera in the Tangahoe catchment. The site operation involves mixing of cement, aggregate, water and additives in concrete mixing trucks for delivery to end users, and recently it has been used only as a satellite plant. The site also stores aggregate, sand and builders mix for retail.

Firth Industries holds one resource consent, which includes a total of seven conditions setting out the requirements that they must satisfy. The consent allows for the discharge of treated wastewater onto and into land and into an unnamed tributary of the Tawhiti Stream.

During the year under review, Firth industries demonstrated an overall high level of environmental performance.

Fletcher Concrete & Infrastructure Limited (Fletcher Concrete) operates a concrete batching plant and pre-cast manufacturing plant on a site just north of Stratford on State Highway 3 in the Kahouri catchment. Activities at the site include the storage and mixing of aggregate, cement, water and additives, as well as the manufacturing of pre-cast drainage soak-hole liners and lids, offal hole lids and troughs. The concrete batching plant is operated by their subsidiary Firth Industries, and the pre-cast facility and sales depot is operated by their subsidiary Humes Pipeline Systems (Humes).

Fletcher Concrete holds one resource consent, which includes a total of 13 conditions setting out the requirements that the consent holder must satisfy. The consent allows for the discharge of stormwater and wastewater onto and into land and into an unnamed tributary of the Kahouri Stream.

During the year under review, Fletcher Concrete & Infrastructure Limited demonstrated an overall high level of environmental performance.

The Council's monitoring programme for the July 2014 to June 2015 monitoring period included up to three inspections at each site.

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

This report includes recommendations for the 2015-2016 year.

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1. Introduction

1.1 Compliance monitoring programme reports and the Resource Management Act 1991

1.1.1 Introduction

This report is the Annual Report for the period July 2014 to June 2015 by the Taranaki Regional Council (the Council) on the monitoring programme associated with resource consents held by three concrete batching plants in the Taranaki Region, namely Allied Concrete Limited (Allied Concrete) on Mould Street in Waitara, Firth Industries on Glover Road in Hawera, and Fletcher Concrete & Infrastructure Limited (Fletcher Concrete) on Mountain Road in Stratford.

This report covers the results and findings of the monitoring programme implemented by the Council in respect of the consents held by Allied Concrete, Firth Industries, and Fletcher Concrete that relate to discharges of stormwater and/or wastewater onto and into land and/or into water within the Waitara, Tangahoe, and Patea catchments respectively.

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 Allied Concrete's, Firth Industries' and Fletcher Concrete's use of water, land and air, and is the 10th combined Annual Report by the Council for these companies.

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, a summary of the resource consents held by Allied Concrete, Firth Industries and Fletcher Concrete in the Waitara, Tangahoe and Patea catchments and the nature of the monitoring programme in place for the period under review.

Each of the concrete plants is then discussed in a separate section (Sections 2 to 4).

In each of the first subsections (e.g. Section 2.1) there is a general description of the concrete plant, its processes and discharges, an aerial photograph or map, and an outline of the matters covered by the consent holder's water discharge permit.

Subsection 2 presents the results of monitoring of the consent holder's activities during the period under review, including scientific and technical data.

Subsection 3 discusses the results, their interpretation, and their significance for the environment in the immediate vicinity of the site under consideration.

Subsection 4 presents the recommendation(s) to be implemented in the 2015-2016 monitoring year at each of the sites.

Section 5 is a summary of all the recommendations in relation to this programme for the 2015-2016 period.

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 a discharger, and may include cultural and socio-economic effects;
- (b) physical effects on the locality, including landscape, amenity and visual effects;
- (c) ecosystems, including effects on plants, animals, or habitats, whether aquatic or terrestrial;
- (d) natural and physical resources having special significance (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 performance

Besides discussing the various details of the performance and extent of compliance by the consent holders during the period under review, this report also assigns a rating as to each consent holder'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 consent holder'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 interpretations, are as follows:

Environmental Performance

- **High:** No or inconsequential (short-term duration, less than minor in severity) breaches of consent or regional plan parameters resulting from the activity; no adverse effects of significance noted or likely in the receiving environment. The Council did not record any verified unauthorised incidents involving significant environmental impacts and was not obliged to issue any abatement notices or infringement notices in relation to such impacts.
- **Good:** Likely or actual adverse effects of activities on the receiving environment were negligible or minor at most. There were some such issues noted during monitoring, from self reports, or in response to unauthorised incident reports, but these items were not critical, and follow-up inspections showed they have been dealt with. These minor issues were resolved positively, co-operatively, and quickly. The Council was not obliged to issue any abatement notices or infringement notices in relation to the minor non-compliant effects; however abatement notices may have been issued to mitigate an identified potential for an environmental effect to occur.

For example:

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

Administrative compliance

- **High:** The administrative requirements of the resource consents were met, or any failures to do this had trivial consequences and were addressed promptly and co-operatively.
- **Good:** Perhaps some administrative requirements of the resource consents were not met at a particular time, however this was addressed without repeated interventions from the Council staff. Alternatively adequate reason

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

- **Improvement required:** Repeated interventions to meet the administrative requirements of the resource consents were made by Council staff. These matters took some time to resolve, or remained unresolved at the end of the period under review. The Council may have issued an abatement notice to attain compliance.
- **Poor:** Material failings to meet the administrative requirements of the resource consents. Significant intervention by the Council was required. Typically there were grounds for an infringement notice.

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

1.2 Resource consents

1.2.1 Water discharge permit summary

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.

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.

Therefore, each of the consent holders covered under this programme holds one consent to discharge stormwater, and/or wastewater, onto and into land, and/or into water.

Table 1 provides a summary that includes the consent holders, the purpose of their resource consent, and their review and expiry dates. Further details on each of the consents are given in Sections 2 to 4, and a full copy of each consent can be found in Appendix I of this report.

Table 1 Summary of the concrete batching plants' resource consents

Consent holder	Abbreviated name	Consent Number	Purpose	Review	Expiry
Allied Concrete Limited	Allied Concrete	1273-3	To discharge up to 6 m ³ /day of washwater from a concrete batching plant site into an unnamed tributary of the Waitara River [Renewal application received 26 February 2014]	-	1 June 2015

Firth Industries (Division of Fletcher Concrete & Infrastructure Limited)	Firth Industries	1274-3	To discharge treated wastewater from a concrete batching plant via settling ponds onto and into land and into an unnamed tributary of the Tawhiti Stream in the Tangahoe catchment	June 2016	1 June 2028
Fletcher Concrete & Infrastructure Limited	Fletcher Concrete	5026-2	To discharge stormwater and wastewater from a concrete product manufacturing and storage site onto and into land and into an unnamed tributary of the Kahouri Stream in the Patea catchment	June 2016	1 June 2028

1.2.2 Air emission summary

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.

The air emissions from each of the three sites have previously been assessed as a permitted activity as the activities at the sites comply with the requirements of Rule 13 of the Regional Air Quality Plan for Taranaki (RAQP).

Although not mandatory, Firth Industries and Fletcher Concrete have chosen to apply for certificates of compliance, which confirm that, at the time the applications were considered, the emissions to air from the sites complied with the RAQP, and that no resource consents were required to cover emissions to air from the sites at that time.

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 the Allied Concrete, Firth Industries and Fletcher Concrete sites consisted of two 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 the resource consent holder over consent conditions and their interpretation and application;
- 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

The annual inspection schedule under this programme is for two site inspections per site. Allied Concrete, Firth Industries and Fletcher Concrete were all visited at least twice during the period under review.

One additional inspection was planned for each site during the 2014-2015 year, because each site was visited once during the 2013-2014 monitoring period.

Allied Concrete was inspected three times during the period under review, along with an additional site visit being undertaken in relation to the renewal of their consent.

The third planned inspections at the Firth Industries and Fletcher Concrete sites were undertaken on 1 July 2015; the findings of which will be discussed in the report covering the 2015-2016 period.

With regard to consents for the discharge to water, the main points of interest were plant processes with potential or actual discharges to receiving watercourses, including contaminated stormwater and process wastewaters. Air inspections focused on plant processes with associated actual and potential emission sources and characteristics, including potential odour, dust, noxious or offensive emissions. 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. The neighbourhood was also surveyed for environmental effects.

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

The 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).

2. Allied Concrete Limited

2.1 Introduction

2.1.1 Process description

Allied Concrete operates a concrete batching plant on a site at Mould Street, Waitara in the Waitara catchment. The operation primarily involves the mixing of aggregate, cement, water and additives in a concrete truck mixing bowl, in order to produce concrete, which is then delivered to the end user.

Wastewater on the site consists of potentially contaminated stormwater from around the concrete batching plant and aggregate storage areas, and water from washing the concrete trucks. Therefore, the discharges typically contain some cement deposits and other sediments. The wastewater is treated in a four pond settling system, with water recycled from the fourth pond for use in truck washing and in the concrete making process.

Sludge from the settling ponds is removed periodically and stored on site to dry. Excess concrete from the returning trucks is also off loaded at the site, where it is then made into large blocks that are sold to farmers and local contractors.



Figure 1 Location of Allied Concrete site, Mould Street, Waitara

Allied Concrete have recently made a number of improvements to their stormwater and wastewater management system. In the instances when the pond system overflows, a silt trap and a rock lined basin have been installed to further treat the

discharge. This will optimise treatment efficiency prior to the flow reaching the wetland (referred to as the soakage basin in the Allied Concrete's water management plan). A dish channel has been cut near the main entrance to redirect all stormwater from the front yard into the wetland. A dish drain has also been cut in the rear yard to direct all stormwater from this elevated area into a soakage pond that has been enlarged.

During a consent investigation visit, it was discovered that a small area of the site was not integrated into either of the catchments from which the flows are treated prior to discharge. Accordingly, Allied Concrete has advised the Council that no vehicles or chemicals will be stored in this stormwater catchment in order to avoid the potential for contamination in the stormwater discharging from this area.

An open tributary runs along the southern perimeter of the site and enters a culvert at the access way between the rear and front yards. To prevent untreated stormwater entering the tributary, a block wall barrier flanked by earth bunding has been constructed around the culvert inlet area.

2.1.2 Water discharge permit

Allied Concrete holds water permit **1273-3** to cover the discharge of up to 6 m³/day of washwater from a concrete batching plant site into an unnamed tributary of the Waitara River. This permit was issued by the Council on 14 November 1996 under Section 87(d) of the RMA. It expired on 1 June 2015.

As an application to renew this consent was received prior to 1 March 2015 (more than three months prior to the expiry of consent 1273-3) under Section 124 of the RMA, Allied Concrete can continue to operate under the conditions of the expired consent until a decision is made on the renewal.

There are four special conditions attached to this consent.

Condition 1 relates to maintenance and operation of the silt control system.

Condition 2 designates a mixing zone in the receiving waterbody, and prohibits a range of adverse effects from occurring beyond this specified mixing zone.

Condition 3 relates to concentration limits of pH, oil and grease, and suspended solids in the discharge.

Condition 4 provided for the review of any or all conditions of the consent.

A copy of the permit is attached to this report in Appendix I.

During the renewal process, further information was requested regarding the activities, potential contaminants, drainage and treatment systems, and discharge points in relation to:

- the discharges of contaminants onto land,
- the discharge of treated and untreated stormwater,
- treated and untreated wastewater, and
- their potential environmental effects.

A stormwater management plan, wastewater management plan, and updated contingency plan were also requested.

There was some uncertainty around whether the tributary (that has been planted up as a wetland) at the front of the site, into which some of the discharges flowed, was culverted by the New Plymouth District Council (NPDC) to join the reticulated stormwater system that discharges to an unnamed tributary of the Waitara River, or whether the reticulation upgrade had isolated this stretch of the tributary from the former flow path. A connection between this tributary and the NPDC stormwater system would have a bearing on the nature of discharge consent that would be issued, and the special conditions that would be required to ensure that the environmental effects were no more than minor.

Just before the end of the period under review it was confirmed that there was a flow from the tributary (wetland) to the unnamed tributary, in addition to soakage to land.

2.2 Results

2.2.1 Inspections

5 August 2014

The load out area was found to be in use at the time of inspection. There was no evidence of untreated water exiting either this or the bunded areas. The truck wash area was found to be well maintained and it was noted that it did not appear to be the source of any untreated discharges. The ponds at the truck wash area were full and discharging a clear, low flow to the wetland. There was some evidence of fines in the wetland due to the recent rain and the pump having broken down. It was noted that the slurry area at the back of the yard was full and Allied Concrete was advised that it would need to be emptied soon. The main drain through the yard had been cleaned out and there were no signs of any untreated discharges diverting offsite. Overall, the site appeared to be well managed and well maintained.

19 December 2014

It was found that load out was occurring at the time of the inspection. There was no evidence of untreated water being discharged from the bunded areas, which appeared to be well managed. The settlement pond system appeared to be working effectively, with a clear discharge from the final pond to the wetland. The recirculation pump was yet to be reinstalled, however the inspecting officer was informed that its operation was set to resume after the fines slurry had been removed from the pond. There was no evidence of untreated water exiting the aggregate recovery area, which appeared to be well managed. The tributary alongside the yard was running clear, with no apparent sources of contamination entering it. Overall, the site again looked to be well managed and well maintained.

26 May 2015

The site was visited with the Drainage Reticulation Supervisor from NPDC, as the Council had been advised that works undertaken between the settling pond outlet and the wetland had resulted in the blockage of a pipe. It was found that a swampy area north of the site was piped beneath the adjacent property, with the outlet in the same wetland that Allied Concrete discharge into. The Drainage Reticulation

Supervisor outlined that the pipe blockage had resulted in water backing up and causing flooding in the neighbouring property.

The Council Officer was informed that Allied Concrete would be instructed to reinstate the pipe.

Drainage from the wetland was also discussed with Drainage Reticulation Supervisor. It was outlined that NPDC understood that the wetland had not been isolated from the stormwater system.

Following this site visit, both the Manager of the Allied Concrete Waitara site and the contracted environmental consultant were contacted and asked to confirm the stormwater discharge path from the wetland with NPDC. It was also asked that the appropriateness of the changes made to the drainage systems at the front of the site be reviewed in the light of the outcomes of this investigation, as it was noted that the end of the wetland likely to contain an outlet was becoming quite silty. Photographs of this were taken.

Both parties were also advised that the consent application would need to be amended if it was found that the wetland drained to the nearby tributary via NPDC's reticulated stormwater, as the current application was for a discharge to land only.

30 June 2015

It was found that all wash down water was currently being used (recycled) and that at the time of the inspection the fourth pond was empty. The back of the yard had been cleaned up and nothing was being stored there. New earthworks and plantings had also been carried out on the top yard. Bunding had been constructed around the tributary that runs along side the back half of the yard, preventing contamination from stormwater. However, it was discovered that a section of earth bunding next to where the stream enters the culvert had washed away following a recent storm. A more permanent barrier was recommended, to prevent untreated stormwater from entering the tributary. It was found that a shallow catch drain had been cut across the front entrance. This drained to a small sump that discharged into the downstream end of the wetland, and was designed to catch aggregate or heavier fines. This drain was clean and clear at the time of inspection with nothing appearing to leave the system. The works at the top of the wetland now included a collection area for clean stormwater water runoff from the neighbouring site, which is then allowed to soak away. On site, it was found that the bunded areas were well managed and there was plenty of free board available.

Overall, the site was considered to be in a satisfactory condition and the improvements appeared to be working well.

2.2.2 Results of discharge monitoring

No untreated or inadequately treated discharges were discovered entering the receiving environment during the inspections undertaken at the Allied Concrete site during the 2014-2015 monitoring period. Therefore, no discharge samples were collected, as it was not deemed necessary to confirm consent compliance. This was achieved by visual assessment.

2.2.3 Results of receiving environment monitoring

No sampling of the receiving waters was undertaken, as any discharges that were found to be occurring were clear and no indications of adverse effects in receiving waters were discovered.

2.2.4 Investigations, interventions, and incidents

In the 2014-2015 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with the Allied Concrete's conditions in their resource consent or provisions in Regional Plans.

2.3 Discussion

2.3.1 Discussion of site performance

The Allied Concrete site at Waitara was found to be generally well maintained. A number of improvements were made to the site during the 2014-2015 period with regards to water management. Specifically, the measures of containment and treatment for the site's stormwater and washwater were improved notably.

No air related matters were noted during the period under review.

2.3.2 Environmental effects of exercise of consents

There were no significant environmental effects found that were associated with Allied Concrete's operations. Despite the noticeable deposition of concrete fines on the bed of the tributary at the culvert inlet, unidentified Galaxiid, thought possibly to be Banded Kokopu were found at this location during site visit on 11 March 2015 (Photo 1). The presence of these fish is indicative of the stream's life supporting capacity. Through undertaking additional works to improve the site's water management, Allied Concrete are adopting the best practicable option to prevent or minimise any adverse effects on the receiving environment.



Photo 1 Unidentified Galaxiids found in the tributary at the culvert inlet on the Allied Concrete Waitara site

2.3.3 Evaluation of performance

A summary of the Allied Concrete's compliance record for the year under review is set out in Table 2.

Table 2 Summary of performance for Consent 1273-3 held by Allied Concrete

Purpose: <i>To discharge up to 6 m³/day of washwater from a concrete batching plant site into an unnamed tributary of the Waitara River</i>		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Maintain and operate silt control system	Inspections of site	Yes
2. Mixing zone and effects of receiving water	Inspections of site and receiving water	Yes
3. Concentration limits	Visual assessment at inspection	Yes
4. Review conditions of consent	No further opportunities for review	N/A
Overall assessment of environmental performance and compliance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

During the 2014-2015 monitoring year, Allied Concrete demonstrated a high level of both environmental performance and administrative compliance with their resource consent as defined in Section 1.1.4.

2.3.4 Recommendation from the 2013-2014 Annual Report

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

1. THAT monitoring of discharges from Allied Concrete in the 2014-2015 year continues at the same level as in 2013-2014.

This recommendation was implemented.

2.3.5 Alterations to monitoring programmes for 2015-2016

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

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

2.4 Recommendation

1. THAT monitoring of consented activities at the Allied Concrete Waitara site in the 2015-2016 year continue at the same level as in 2014-2015.

3. Firth Industries (Division of Fletcher Concrete & Infrastructure Limited)

3.1 Introduction

3.1.1 Process description

Firth Industries operates concrete batching plant on a site at Glover Road, Hawera in the Tangahoe catchment.

The operation primarily involves the mixing of aggregate, cement, water and additives in a concrete truck mixing bowl in order to produce concrete which is then delivered to the end user. Builder's mix and aggregate are also retailed from the site.

A concreting operation was established on this site prior to 1967. Firth Industries have been operating at the site since the 1980's.

Wastewater on the site consists of stormwater from around the concrete batching plant and aggregate storage areas, as well as water from washing the concrete trucks. Therefore, the wastewater typically contains some cement deposits and other sediments. Wastewater is treated in a three pond settling system, with water recycled from the third pond for truck washing and use in the concrete making process.

Sludge from the settling ponds is removed periodically and stored on site to dry. Excess concrete from the returning trucks is also off loaded at the site, and is then made into large blocks that are sold to farmers and local contractors.



Figure 2 Location of Firth Industries site, Glover Road, Hawera

3.1.2 Water discharge permit

Firth Industries holds water permit **1274-3** to discharge treated wastewater from a concrete batching plant via settling ponds onto and into land and into an unnamed tributary of the Tawhiti Stream in the Tangahoe catchment. This permit was issued by the Council on 14 July 2010 under Section 87(d) of the RMA. It is due to expire on 1 June 2028.

There are 7 special conditions attached to consent 1274-3.

Condition 1 requires the consent holder to adopt the best practicable option.

Condition 2 states that the discharge must not exceed 2 m³/day.

Condition 3 requires all washwater to be directed for treatment prior to discharge.

Condition 4 requires the consent holder to maintain the treatment system and ensure retention time is adequate to meet requirements of conditions 5 and 6.

Condition 5 states the discharge concentration limits for suspended solids and oil and grease.

Condition 6 designates a mixing zone in the receiving waterbody and prohibits a range of adverse effects from occurring beyond this specified mixing zone.

Condition 7 provides for the review of any or all conditions of the consent.

A copy of the permit is attached to this report in Appendix I.

3.2 Results

3.2.1 Inspections

12 August 2014

There was no activity occurring on site at the time of inspection. The yard appeared to be tidy, with all stormwater draining into the containment area. There were no signs of any runoff escaping the yard or load out areas. Only a small amount of water appeared to have drained from the slurry collection area into the main collection area. The collection sump and aggregate traps contained settled stormwater. The bunded containment areas also appeared to be holding uncontaminated stormwater. Overall, although the site appeared to have had little recent use, everything appeared to be well managed and well maintained.

27 November 2014

The site appeared to have had minimal activity since the previous inspection. There was no evidence of runoff escaping the system and all bunding was working well. The settlement pond was dry at the time of the inspection. Overall, the site was well managed and well maintained.

The final scheduled inspection for the period under review was undertaken on 1 July 2015. The site was found to be compliant with consent conditions, and the inspection findings will be discussed in the report covering the 2015-2016 monitoring year.

3.2.2 Results of discharge monitoring

Inspections undertaken at Firth Industries during the 2014-2015 monitoring period did not find any untreated or inadequately treated discharges entering the receiving environment. At the time of inspection the stormwater and washwater was either contained, or the ponds were dry.

3.2.3 Results of receiving environment monitoring

No sampling of the receiving waters was undertaken, as there were no discharges occurring at the times of inspection.

3.2.4 Investigations, interventions, and incidents

In the 2014-2015 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with the Firth Industries' conditions in their resource consent or provisions in Regional Plans.

3.3 Discussion

3.3.1 Discussion of site performance

Although the inspections suggested that minimal activity had taken place at this site, Firth Industries in Hawera was well managed and maintained. The settlement ponds appeared to be working effectively and were either found to be empty, or filled with clean stormwater.

No air related matters were noted during the period under review.

3.3.2 Environmental effects of exercise of consents

Inspection found that operations at the Firth Industries site did not have a discernible effect on the receiving environment during the 2014-2015 monitoring period.

3.3.3 Evaluation of performance

A summary of Firth Industries' compliance record for the year under review is set out in Table 3.

Table 3 Summary of performance for Consent 1274-3 held by Firth Industries

Purpose: <i>To discharge treated wastewater from a concrete batching plant via settling ponds onto and into land and into an unnamed tributary of the Tawhiti Stream in the Tangahoe catchment.</i>		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Best practicable option	Inspections of the site and systems	Yes
2. Discharge volume limit	Inspection of the site – Not discharging at the time of inspection	Yes

Purpose: <i>To discharge treated wastewater from a concrete batching plant via settling ponds onto and into land and into an unnamed tributary of the Tawhiti Stream in the Tangahoe catchment.</i>		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
3. Washwater to be directed for treatment prior to discharge	Inspections of the site	Yes
4. Maintain silt and sediment system	Inspections of site and records	Yes
5. Concentration limits	Sampling – No samples taken as no discharge was occurring during inspection	N/A
6. Mixing zone effects	Inspections of site and receiving water	Yes
7. Optional review of conditions	Next optional review date June 2016	N/A
Overall assessment of environmental performance and compliance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

During the 2014-2015 monitoring year, Firth Industries demonstrated a high level of both environmental performance and administrative compliance with their resource consent as defined in Section 1.1.4.

3.3.4 Recommendation from the 2013-2014 Annual Report

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

1. THAT monitoring of discharges from Firth Industries in the 2014-2015 year continues at the same level as in 2013-2014.

This recommendation was implemented.

3.3.5 Alterations to monitoring programmes for 2015-2016

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

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

3.3.6 Optional review

Resource consent 1274-3 provides for an optional review of the consent in June 2016. Condition 7 allows the Council to review the conditions of 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.

3.4 Recommendations

1. THAT monitoring of discharges from Firth Industries in the 2015-2016 year continues at the same level as in 2014-2015.
2. THAT the option for a review of resource consent 1274-3 in June 2016, as set out in condition 7 of the consent, not be exercised on the grounds that the current level of monitoring is adequate to deal with any potential adverse effects.

4. Fletcher Concrete & Infrastructure Limited

4.1 Introduction

4.1.1 Process description

Fletcher Concrete operates a concrete batching plant and pre-cast manufacturing plant, including storage and retail of concrete products, on a site just north of Stratford on State Highway 3 (Mountain Road). The site is run by two divisions of Fletcher Concrete, namely Firth Industries and Humes Pipeline Systems (Humes).

This concrete batching site, operated under a consent held by Fletcher Concrete & Infrastructure Limited, was added to the Concrete Batching Plants Monitoring Programme on 1 July 2010. Prior to this, the site was part of the Kahouri Catchment Monitoring Programme, and was amalgamated into the Concrete Batching Plant programme when it was considered that catchment scale monitoring was no longer required for the Kahouri catchment.

The concrete batching plant operation primarily involves the mixing of aggregate, cement, water and additives in a concrete truck mixing bowl in order to produce concrete, which is then delivered to the end user. The Humes operation involves the manufacturing of pre-cast drainage soak-holes and lids, offal hole lids and troughs. Humes was also a sales depot for items manufactured both on and off the site. The business has operated on the site since 1939.

A tributary of the Kahouri Stream runs under the plant site. Washwater from the plant is treated by settlement in two small ponds, followed by soakage in two stone-filled pits. Concrete truck washings are treated separately by settlement in two small ponds in series, followed by two soakage ponds. Washwater may be re-circulated from the fourth pond to increase residence time for settling. Discharges to the stream tributary can occur from both soakage systems. During the 2000-2001 monitoring period the third settling pond was relocated adjacent to the other two ponds. The area around the ponds was fully fenced, and the intention was to start recycling the water from the ponds, once the pond had self sealed and soakage to ground from the new pond had stopped.

Sludge from the settling ponds is removed periodically and stored on site to dry. Excess concrete from the returning trucks is also off loaded at the site. Local farmers take the dry material for use as fill material and to maintain driveways.

Stormwater from yard areas and the roof of the main building currently soaks to ground, or drains through soak holes or grit interceptors before discharging to the unnamed tributary of the Kahouri Stream.

Fletcher Concrete & Infrastructure proposes to upgrade the existing stormwater and wastewater management system, as follows:

- Additional wastewater from the Humes pre-cast pipe manufacturing plant is to be directed to the concrete batching plant wastewater pond and settling system;
- The provision for recycling of truck wash, batching plant and pipe manufacturing wastewater, including two new wastewater holding tanks with the combined capacity of 45,000 litres; and

- Two new sludge drying bins and a concrete mould area were to be developed. These were to be fully contained, with wastewater being directed to the truck wash out wastewater settling area.



Figure 3 Fletcher Concrete site (Firth Industries and Humes Pipeline Systems), Stratford

4.1.2 Water discharge permit

Fletcher Concrete holds discharge permit **5026-2** to discharge stormwater and wastewater from a concrete product and manufacturing storage site onto and into land and into an unnamed tributary of the Kahouri Stream in the Patea catchment. This permit was issued by the Council on 7 May 2009 under Section 87(d) of the RMA. It is due to expire on 1 June 2028.

There are 13 special conditions attached to this consent.

Condition 1 requires the consent holder to adopt the best practicable option.

Condition 2 limits the maximum stormwater catchment area.

Condition 3 states that the discharge of wastewater shall not exceed 5 m³/day.

Condition 4 requires that the stormwater and wastewater system be as shown in plans submitted in support of the consent application.

Condition 5 requires bunding of all above ground hazardous substance storage areas.

Condition 6 states that the discharge, after reasonable mixing in the receiving waters, shall not give rise to pH outside of the range 6.0-9.0.

Condition 7 limits the discharge concentration of suspended solids, total recoverable hydrocarbons, and chloride.

Condition 8 designates a mixing zone in the receiving waterbody and prohibits a range of adverse effects from occurring beyond this specified mixing zone.

Condition 9 requires the consent holder to maintain a contingency plan.

Condition 10 requires the consent holder to maintain a stormwater management plan.

Condition 11 requires the consent holder to notify the Council prior to making any changes to processes or operations which may alter the discharge.

Condition 12 relates to consent lapse.

Condition 13 provides for the review of any or all conditions of the consent.

A copy of the permit is attached to this report in Appendix I.

4.2 Results

4.2.1 Inspections

5 August 2014

The yard area was well maintained with no evidence of any untreated stormwater or washwater leaving site. The batching area appeared to be well managed with clean stormwater found in the sand trap. There was no cement dust or tracking evident at the base of the silo. The truckwash area also appeared to be well managed. No untreated washwater was escaping from the settlement ponds, which it was noted, were very full. The water within the soak holes appeared to be clear of any fines, but it was observed that the earth surrounding the second hole had been scoured by recent rainfall. Overall, the site was considered to be well maintained and the stormwater and washwater treatment systems appeared to be working effectively.

27 November 2014

The plant appeared to have had minimal use since the previous inspection. The discharge from the soak holes was not carrying suspended fines. The truck wash area and settling ponds were well maintained with no washwater leaving the area. Similarly, the aggregate drop off area, and the area under the concrete batching plant and the cement silo were both in a satisfactory condition, with all stormwater appearing to be contained. Overall, the entire site appeared to be well managed and well maintained.

The final scheduled inspection for the period under review was undertaken on 1 July 2015. The site was found to be compliant with consent conditions, and the inspection findings will be discussed in the report covering the 2015-2016 monitoring year.

4.2.2 Results of discharge monitoring

No untreated or inadequately treated discharges were discovered entering the receiving environment during the inspections undertaken at the Fletcher Concrete site during the 2014-2015 monitoring period. Therefore, no discharge samples were collected, as it was not deemed necessary to confirm consent compliance, which was achieved by visual assessment.

4.2.3 Results of receiving environment monitoring

No sampling of the receiving waters was undertaken, as any discharges that were found to be occurring were clear, and no indications of adverse effects were discovered in receiving waters.

4.2.4 Investigations, interventions, and incidents

In the 2014-2015 period, the Council was not required to undertake significant additional investigations and interventions, or record incidents, in association with the Fletcher Concrete's conditions in their resource consent or provisions in Regional Plans.

4.3 Discussion

4.3.1 Discussion of site performance

The Fletcher Concrete site at Stratford was generally found well managed and well maintained. The stormwater containment and treatment systems appeared to be working effectively, as were those for the washwater.

No air related matters were noted during the period under review.

4.3.2 Environmental effects of exercise of consents

Operations at the Fletcher Concrete site did not have a discernible effect on the receiving environment during the 2014-2015 monitoring period.

4.3.3 Evaluation of performance

A summary of Fletcher Concrete's compliance record for the year under review is set out in Table 4.

Table 4 Summary of performance for consent 5026-2 held by Fletcher Concrete & Infrastructure Limited

Purpose: <i>To discharge stormwater and wastewater from a concrete product manufacturing and storage site onto and into land and into an unnamed tributary of the Kahouri Stream in the Patea catchment.</i>		
Condition requirement	Means of monitoring during period under review	Compliance achieved?
1. Best practicable option	Inspection of site	Yes
2. Maximum catchment area	Inspection of site	Yes
3. Discharge volume limit	Inspection of site and discharge system	Yes
4. System in accordance with information supplied with application	Inspection of site	Yes
5. Hazardous substances storage bunded	Inspection of site	Yes
6. Receiving water pH range, 6.9-9.0	Inspections and visual assessment of site and receiving water	Yes
7. Concentration limits	Visual assessment at inspection	Yes
8. Mixing zone effects	Inspections of site and receiving water	Yes
9. Contingency planning	Plan on file	Yes
10. Stormwater management plan	Plan on file	Yes
11. Notification of any changes to processes	No changes	N/A
12. Consent lapse	Consent has been exercised	N/A
13. Optional review of conditions	Next Optional review date June 2016	N/A
Overall assessment of environmental performance and compliance in respect of this consent		High
Overall assessment of administrative performance in respect of this consent		High

During the 2014-2015 monitoring year, Fletcher Concrete demonstrated a high level of both environmental performance and administrative compliance with their resource consent as defined in Section 1.1.4.

4.3.4 Recommendation from the 2013-2014 Annual Report

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

1. THAT monitoring of discharges from Fletcher Concrete in the 2014-2015 year continues at the same level as in 2013-2014.

This recommendation was implemented.

4.3.5 Alterations to the monitoring programme for 2015-2016

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

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

4.3.6 Optional review

Resource consent 5026-2 provides for an optional review of the consent in June 2016. Condition 13 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.

4.4 Recommendations

1. THAT monitoring of discharges from Fletcher Concrete in the 2015-2016 year continues at the same level as in 2014-2015.
2. THAT the option for a review of resource consent 5026-2 in June 2016, as set out in condition 13 of the consent, not be exercised on the grounds that the current level of monitoring is adequate to deal with any potential adverse effects.

5. Summary of recommendations

1. THAT monitoring of discharges from Allied Concrete in the 2015-2016 year continues at the same level as in 2014-2015.
2. THAT monitoring of discharges from Firth Industries in the 2015-2016 year continues at the same level as in 2014-2015.
3. THAT the option for a review of resource consent 1274-3 in June 2016, as set out in condition 7 of the consent, not be exercised on the grounds that the current level of monitoring is adequate to deal with any potential adverse effects.
4. THAT monitoring of discharges from Fletcher Concrete in the 2015-2016 year continues at the same level as in 2014-2015.
5. THAT the option for a review of resource consent 5026-2 in June 2016, as set out in condition 13 of the consent, not be exercised on the grounds that the current level of monitoring is adequate to deal with any potential adverse effects.

Glossary of common terms and abbreviations

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

Bund	A wall around a tank to contain its contents in the case of a leak.
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	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.
m ³ /day	Cubic metres per day.
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.
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.
Resource consent	Refer Section 87 of the RMA. Resource consents include land use consents (refer Sections 9 and 13 of the RMA), coastal permits (Sections 12, 14 and 15), water permits (Section 14) and discharge permits (Section 15).
RMA	Resource Management Act 1991 and including all subsequent amendments.
UI	Unauthorised Incident.

For further information on analytical methods, contact the Council's laboratory.

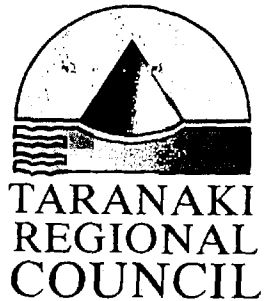
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Appendix I

**Resource consents held by
Allied Concrete, Firth Industries and Fletcher Concrete
and Infrastructure Limited**

TRK961273



DISCHARGE PERMIT

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

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

Name of
Consent Holder:

ALLIED CONCRETE *21/29/96*
~~READY MIXED CONCRETE~~
PO BOX 3318 NEW PLYMOUTH

Renewal
Granted Date:

14 November 1996

CONDITIONS OF CONSENT

Consent Granted:

TO DISCHARGE UP TO 6 CUBIC METRES/DAY OF
WASHWATER FROM A CONCRETE BATCHING PLANT SITE
INTO AN UNNAMED TRIBUTARY OF THE WAITARA RIVER AT
OR ABOUT GR: Q19:160-444

Expiry Date:

1 June 2015

Review Date[s]:

June 2003 and June 2009

Site Location:

105 MOULD STREET, WAITARA

Legal Description:

LOT 1 DP11963 WAITARA TOWNSHIP

Catchment:

WAITARA 395.000

Tributary:

UNNAMED TRIBUTARY

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

TRK961273

GENERAL CONDITIONS

- (a) That on receipt of a requirement from the General Manager, Taranaki Regional Council (hereinafter the General Manager), the consent holder shall, within the time specified in the requirement, supply the information required relating to the exercise of this consent.
- (b) That unless it is otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent must be at the consent holder's own expense.
- (c) That the consent holder shall pay to the Council all required administrative charges fixed by the Council pursuant to section 36 in relation to:
 - (i) the administration, monitoring and supervision of this consent;
 - (ii) charges for the carrying out of the Council's functions under section 35 in relation to this consent; and
 - (iii) charges authorised by regulations.

SPECIAL CONDITIONS

1. THAT the consent holder shall properly and efficiently maintain and operate the silt control system in such a manner that any discharge which may occur will not breach the conditions of this consent and any mitigation works shall be designed and constructed to a high standard. The silt control system shall be operated, as far as practicable, so as to maximise the treatment of the washwater and to minimise the duration and frequency of the discharge.
2. THAT after allowing for reasonable mixing, within a mixing zone extending 25 metres downstream of the washwater discharge point, the discharge shall not give rise to any of the following effects in the receiving waters of the unnamed tributary of the Waitara River:
 - 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.
3. THAT the following concentrations shall not be exceeded in the discharge:

<u>Component</u>	<u>Concentration</u>
pH [range]	6-12
Oil and grease	15 gm ⁻³
Suspended solids	200 gm ⁻³

This condition shall apply prior to the entry of the treated washwater into the receiving water at a designated sampling point[s] approved by the General Manager, Taranaki Regional Council.

TRK961273

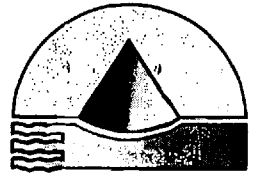
4. THAT the Taranaki Regional Council may review any or all of the conditions of this consent by giving notice of review during the month of June 2003 and/or June 2009, for the purpose of ensuring that the conditions are adequate to deal with any significant adverse effects of the discharge on the environment arising from the exercise of this consent, which were not foreseen at the time the application was considered and which it was not appropriate to deal with at the time.

Signed at Stratford on 14 November 1996

For and on behalf of
TARANAKI REGIONAL COUNCIL

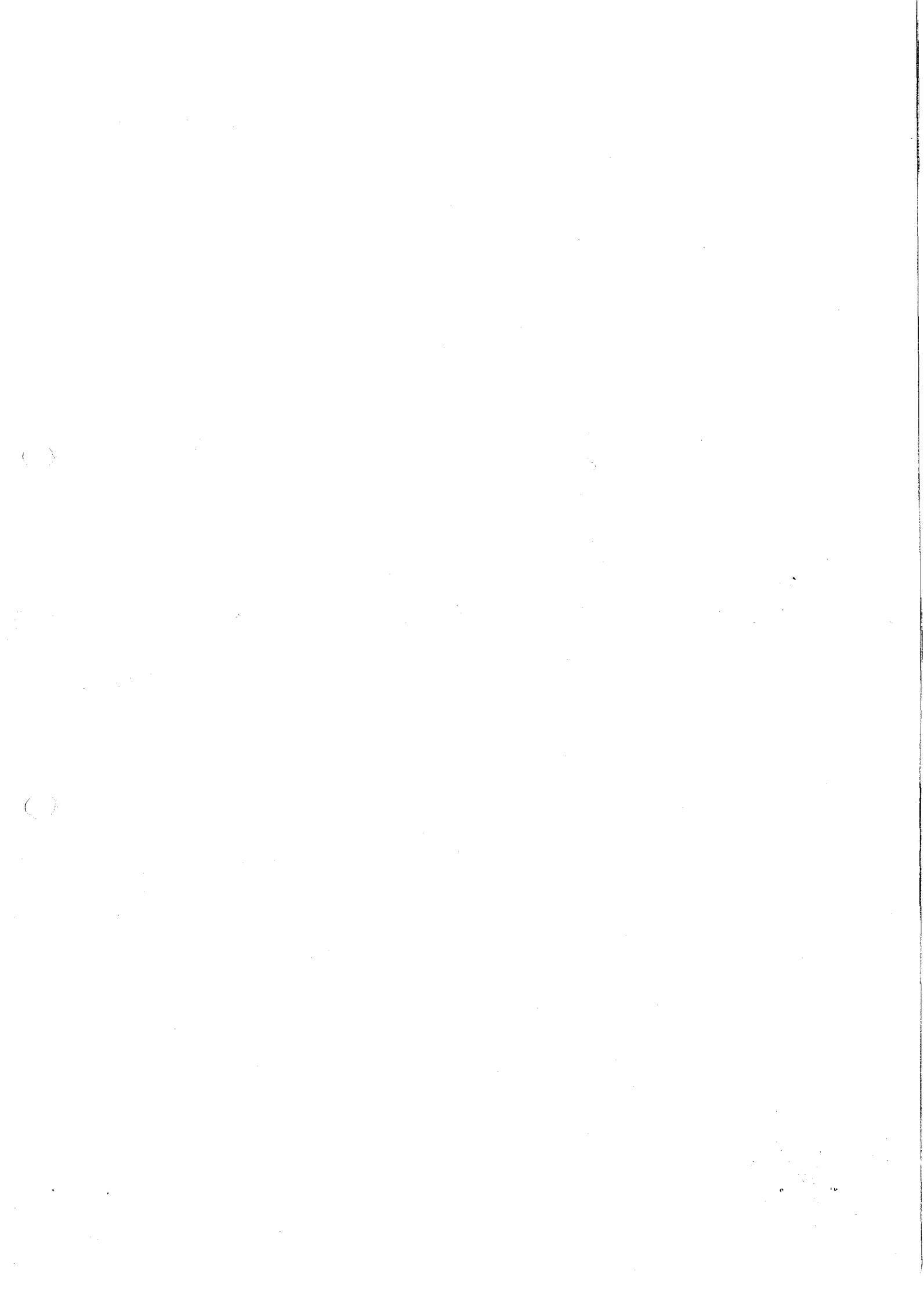


OPERATIONS MANAGER



**TARANAKI
REGIONAL
COUNCIL**

PRIVATE BAG 713
47 CLON 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: Firth Industries
(Division of Fletcher Concrete & Infrastructure Limited)
P O Box 99904
Newmarket
AUCKLAND 1149

Consent Granted
Date: 14 July 2010

Conditions of Consent

Consent Granted: To discharge treated wastewater from a concrete batching plant via settling ponds onto and into land and into an unnamed tributary of the Tawhiti Stream in the Tangahoe catchment at or about (NZTM) 1710199E-5617961N

Expiry Date: 1 June 2028

Review Date(s): June 2016, June 2022

Site Location: Glover Road, Hawera

Legal Description: Site location: Lot 2 DP 17199 Blk V Hawera SD
Discharge point: Lot 1 DP 19937

Catchment: Tangahoe

Tributary: Tawhiti

*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 [the Council] all the administration, monitoring and supervision costs of this consent, fixed in accordance to section 36 of the Resource Management Act.

Special conditions

1. The consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to prevent or minimise any adverse effects on the environment from the exercise of this consent.
2. The discharge shall not exceed a total volume of 2 cubic metres per day.
3. All wash water shall be directed for treatment through the sediment retention pond system prior to discharge from the site.
4. The consent holder shall maintain the sediment retention pond system, including regular removal of the sediment accumulated in ponds, to ensure adequate retention time for the discharge to meet the special conditions 5 and 6 of this consent.
5. Constituents of the discharge shall meet the standards shown in the following table.

<u>Constituent</u>	<u>Standard</u>
suspended solids	Concentration not greater than 200 gm ⁻³
oil and grease	Concentration not greater than 15 gm ⁻³

This condition shall apply before entry of the treated wash water 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 25 metres downstream of the discharge point, the discharge shall not give rise to any or all of the following effects in the receiving water:
 - a) an increase of pH by more than 0.5 pH units;
 - b) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - c) any conspicuous change in colour or visual clarity;
 - d) any emission of objectionable odour;
 - e) the rendering of fresh water unsuitable for consumption by farm animals;
 - f) any significant adverse effects on aquatic life.

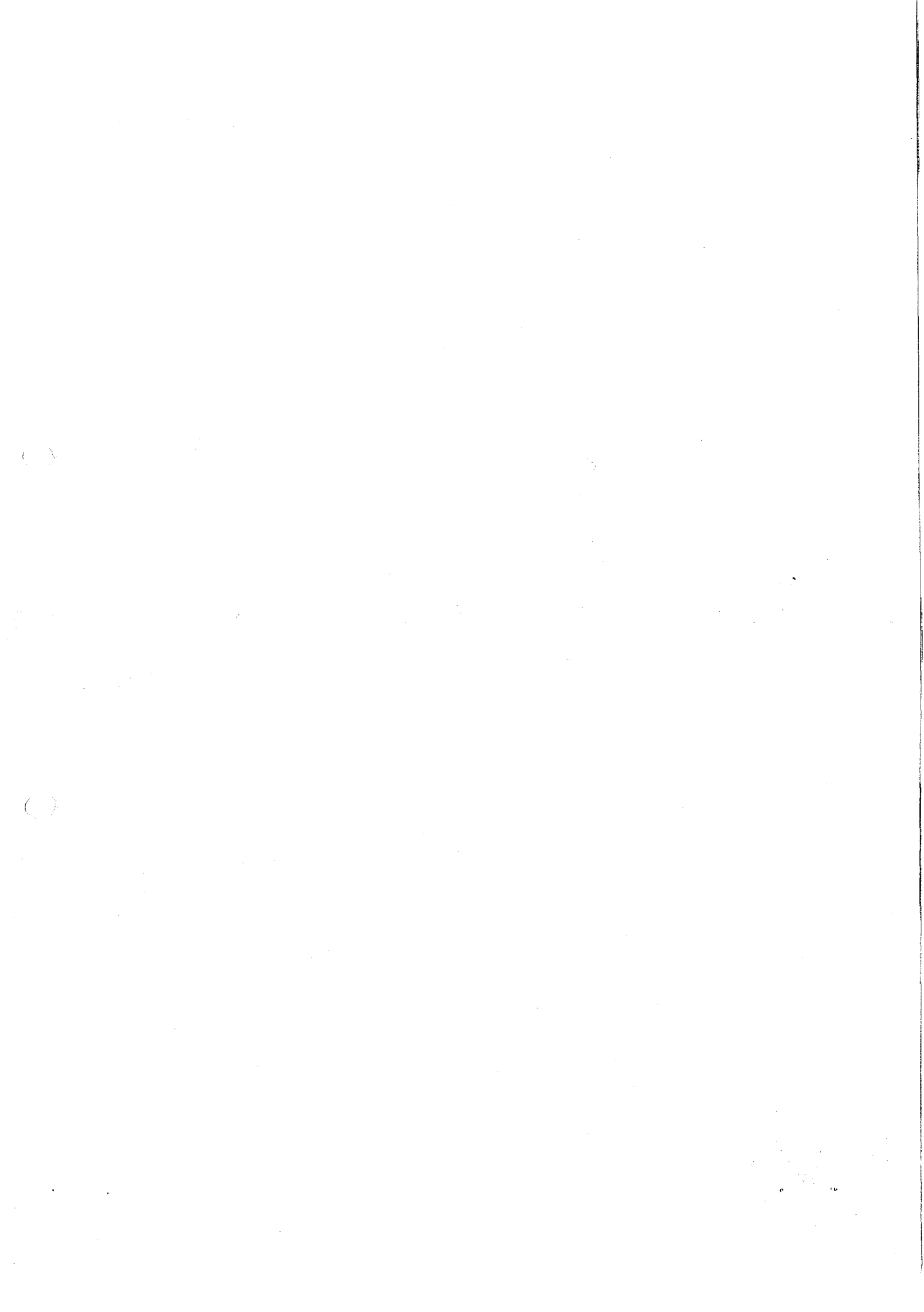
Consent 1274-3

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 2016 and/or June 2022 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 14 July 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: Fletcher Concrete & Infrastructure Limited
Private Bag 99904
Newmarket
AUCKLAND

Consent Granted
Date: 7 May 2009

Conditions of Consent

Consent Granted: To discharge stormwater and wastewater from a concrete product manufacturing and storage site onto and into land and into an unnamed tributary of the Kahouri Stream in the Patea catchment at or about (NZTM) 1710131E-5646578N

Expiry Date: 1 June 2028

Review Date(s): June 2016, June 2022 and/or within 3 months of receiving notification under special condition 11

Site Location: 3524 Mountain Road, Stratford

Legal Description: Lots 1 & 2 DP 6111 Lot 1 DP 5823 Blk I Ngaere SD

Catchment: Patea

Tributary: Kahouri

*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 stormwater discharged shall be from a catchment area not exceeding 13,700 m².
3. The discharge of wastewater shall not exceed 5 m³/day.
4. The wastewater and stormwater system shall be as indicated in the drawings provided with application 6133 titled *Fletcher Concrete and Infrastructure Ltd Stratford Site Mountain Road* (SH3) S1-00, S1-01, S1-02, S1-03, and S1-03 Diagram 1.
5. 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.
6. After allowing for reasonable mixing, within a mixing zone extending 25 metres downstream of the discharge point, the discharge shall not, either by itself or in combination with other discharges, give rise to a pH level in the receiving waters outside of the range 6.0-9.0.
7. Constituents of the discharge shall meet the standards shown in the following table.

<u>Constituent</u>	<u>Standard</u>
suspended solids	Concentration not greater than 100 gm ⁻³
total recoverable hydrocarbons	Concentration not greater than 15 gm ⁻³ [as determined by infrared spectroscopic technique]
Chloride	Concentration not greater than 50 gm ⁻³

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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.

8. After allowing for reasonable mixing, within a mixing zone extending 25 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.
9. 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.
10. 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.
11. 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.
12. This consent shall lapse on 30 June 2014, 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.

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13. 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 2016 and/or June 2022; and/or
 - b) within 3 months of receiving a notification under special condition 11 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 May 2009

For and on behalf of
Taranaki Regional Council

Director-Resource Management