Rangitikei District Council
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Assets/Infrastructure Committee Meeting

Order Paper

Thursday 11 August 2016, 9.30 am

Council Chamber, Rangitikei District Council
46 High Street, Marton

Website: www.rangitikei.govt.nz **Email: info@rangitikei.govt.nz**

Chair
Cr Dean McManaway

Deputy Chair
Cr Mike Jones

Membership
Councillors Cath Ash, Nigel Belsham, Angus Gordon, Tim Harris, Soraya Peke-Mason,
Ruth Rainey and Lynne Sheridan
His Worship the Mayor, Andy Watson (ex officio)

Please Note: Items in this agenda may be subject to amendments or withdrawal at the meeting. It is recommended therefore that items not be reported upon until after adoption by the Council. Reporters who do not attend the meeting are requested to seek confirmation of the agenda material or proceedings of the meeting from the Chief Executive prior to any media reports being filed.

Rangitikei District Council

Assets and Infrastructure Committee Meeting

Order Paper – Thursday 11 August 2016 – 9:30 a.m.

Contents

The quorum for the Assets/Infrastructure Committee is 5.

At its meeting of 28 October 2010, Council resolved that "The quorum at any meeting of a standing committee or sub-committee of the Council (including Te Roopu Ahi Kaa, the Community Committees, the Reserve Management Committees and the Rural Water Supply Management Sub-committees) is that required for a meeting of the local authority in SO 2.4.3 and 3.4.3.

1 Welcome

2 Council Prayer

3 Apologies/Leave of absence

4 Confirmation of order of business

That, taking into account the explanation provided why the item is not on the meeting agenda and why the discussion of the item cannot be delayed until a subsequent meeting, ... be dealt with as a late item at this meeting.

5 Confirmation of minutes

Recommendation
That the Minutes of the Assets/Infrastructure Committee meeting held on 14 July 2016 be taken as read and verified as an accurate and correct record of the meeting.

6 Chair's Report

A report will be tabled at the meeting.

File ref:

Recommendation
That the Chair's Report to the Assets/Infrastructure Committee meeting on 11 August 2016 be received.

7 Queries raised at previous meetings

- 'Queue-Jumping Policy' for seal extensions etc.
- Cost-benefit analysis of using slip-lining technology vs. trenching
- Feasibility of Parks & Reserves Team using mulched green-waste
- Update on the Enviroschools Programme being run in the District
- Outcome of discussions with NZTA on a new entrance to Whangaehu (David Beberfald petition)
- Cost-sharing with Whanganui District Council for the reinstatement of heavy trailer parking near Wyleys Bridge
- Breakdown of hourly costs for trial extended hours at Marton Waste Transfer Station
- Potential to extend opening hours at Bulls Waste Transfer Station
- Clarifying permitted heating requirements in the Taihape Town Hall

8 Activity management

- Roading and footpaths
- Water (including rural water supplies)

- Sewage and the treatment and disposal of sewerage
- Stormwater drainage
- Community and leisure assets (including parks)
- Rubbish and recycling

Recommendation

That the activity management templates for July 2016 for Roading, Water (including rural water supplies), Sewerage and the treatment and disposal of sewage, Stormwater drainage, Community and leisure assets, and Rubbish and recycling be received.

9 VDAM Rule – formal proposal for change

The NZ Transport Agency is consulting, on behalf of the Minister of Transport, on Land Transport Rule: Vehicle Dimensions and Mass 2016 (the proposed Rule). The aim of the proposed Rule is to deliver productivity improvements, greater regulatory efficiency and reduced compliance costs without compromising the road transport system and road user safety outcomes. The review of the current legislation aims to deliver benefits that:

The public consultation (yellow) draft, which includes an explanatory overview, together with Questions and Answers, is available on the NZ Transport Agency's website at www.nzta.govt.nz/vdam-2016.

Council submitted on proposed changes in February, stressing that the current weight tolerances should remain:

> "....The discussion document notes that the New Zealand Transport Agency weigh-in-motion sites yields an estimate that only 82% of truck-trailer combinations are compliant, which might suggest it is prudent to reduce the weighting tolerance from 1.5 tonnes to 0.5 tonne. However, this overlooks the practicalities of operators not having access to accurately weigh-in facilities when loading. There is already a substantial financial penalty for overloading and also the potential for loss of Transport Service Licence for repeat offending."

Proposal 4 in the new Rule is to replace the existing weighing tolerances with a weighing tolerance of 500 kg (axles and gross mass) and 1,000 kg (axle sets and groups) for all heavy vehicles, and the following commentary is provided:

> *While the Rule sets axle and gross mass limits, tolerances above these limits are applied before enforcement action is taken. Tolerances reflect that some loads may gain weight in transit, for example due to the effects of rain, as well as the difficulty of accurately weighing some loads.*
>
> *The maximum current weighing tolerances for axle and gross mass (excepting HPMV) are:4*
>
> - *500kg – for weights up to 11,000kg*
> - *1,000kg – weights from 11,000kg - 33,000kg*
> - *1,500kg – weights heavier than 33,000kg*
> - *300kg – for front steer axles*
>
> *It is proposed to set the weighing tolerances to those currently applying to vehicles on permit:*
>
> - *500kg for all individual axles, twin steer axles and gross mass limits.*
> - *1,000 kg for axle sets (e.g. a tri-axle set at the rear of a semi-trailer).*

The new tolerance levels are much less complex, and the current difference between permit and non-permit tolerances is removed. They better reflect the accuracy of modern weighing techniques, and reinforce the need to load within the legal limits.

Tolerances are not intended to establish additional legal limits above those in the Rule. Instead they reflect that some loads may gain weight in transit and the technical limits of weighing devices.

The Committee is asked to consider whether this proposed Rule) and its intended application satisfies the concern raised in Council's submission last February.

10 Bridge Maintenance Professional Services Contract

A report is attached.

File ref: 6-RT-1-69

Recommendation
That the report 'Bridge Maintenance Professional Services Contract' to the Assets/Infrastructure Committee meeting on 11 August 2016 be received.

11 Outcome of liaison with NZTA on improvement to Mokai Road, Taihape

With the closing of Gravity Canyon and the expected drop off in traffic numbers, the requirement to initiate the work as a result of the inspection is less crucial; however, it will still be conducted. Investigation is planned to be completed by February 2017. A long term strategy to address the total length of Mokai Road will be incorporated into this report.

12 Koitiata Campground and adjacent reserve – upgrading facilities

A report is attached.

File ref: 6-CF-4-16

Recommendations

1. That the report 'Koitiata Campground and adjacent Reserve – upgrading facilities' be received.

2. That the water supply and electrical work at the Koitiata Campground be actioned, funded from the Operational Budget.

3. That the wood-fired BBQ at the adjacent Koitiata Reserve be replaced with a coin-operated gas BBQ, funded from the DISP Reserve account.

13 Initial Seismic Assessment (ISA) of Water Assets

A report is attached.

File ref: 6-WS-1-4

Recommendation

That the report 'Initial Seismic Assessment (ISA) of Water Assets' be received.

14 Consent compliance – July 2016 update

A report is attached.

File ref: 5-EX-3-2

Recommendation

That the report 'Consent compliance – July 2016 update' be received.

15 Marton Wastewater Treatment Plant as at 4 August 2016

A report is attached.

File ref: 6-WW-1-4

Recommendations

That the report 'Marton Wastewater Treatment Plant as at 4 August 2016' be received.

16 Update on Bulls effluent disposal site

This is still potentially a facility associated with the new Bulls Multi-Purpose Community Centre.

17 Late items

18 Future items for the agenda

19 Next meeting

Thursday 15 September 2016, 9.30 am (this will be the Committees last meeting for the triennium)

20 Meeting closed

Attachment 1

Rangitikei District Council

Assets/Infrastructure Committee Meeting

Minutes – Thursday 14 July 2016 – 9:35 a.m.

Contents

Unconfirmed

Present:
Cr Mike Jones (Chair)
His Worship the Mayor, Andy Watson
Cr Cath Ash
Cr Richard Aslett
Cr Nigel Belsham
Cr Tim Harris
Cr Rebecca McNeil
Cr Soraya Peke-Mason
Cr Ruth Rainey
Cr Lynne Sheridan

In attendance:
Mr Hamish Waugh, General Manager - Infrastructure
Mr Michael Hodder, Community & Regulatory Services Group Manager
Mr George McIrvine, Finance & Business Support Group Manager
Ms Joanna Saywell, Asset Manager - Utilities
Mr Darryn Black, Asset Management Officer - Roading
Mr Glenn Young, Senior Projects Engineer - Utilities
Mr Reuben Pokiha, Operations Manager - Roading
Mr Alex Staric, Policy Analyst
Ms Gaylene Prince, Community & Leisure Services Team Leader
Ms Samantha Kett, Governance Administrator

Tabled documents:
Item 9 Emergency Works Update, June 2016 – roading structures - Additional financial information
Item 18 Swim 4 All, 2015/16 – Further Information for Swim for Life 2015/16

Unconfirmed

1 Welcome

The Chair welcomed everyone to the meeting.

2 Council Prayer

Cr Jones read the Council Prayer

3 Apologies/Leave of absence

That the apologies for absence from Cr Gordon, Cr Harris, Cr McManaway and Cr Peke-Mason be received.

Cr Sheridan / Cr Belsham. Carried

4 Confirmation of order of business

The Chair informed the Committee that there would be no change to the order of business from that set out in the agenda.

5 Chair's report

No report was presented to the meeting.

6 Confirmation of minutes

The duplicate mention of Cr Jones being present would be removed.

Resolved minute number 16/AIN/065 File Ref

That the Minutes of the Assets/Infrastructure Committee meeting held on 9 June 2016 be taken as read and verified as an accurate and correct record of the meeting.

Cr Belsham / His Worship the Mayor. Carried

7 Queries raised at previous meeting(s):

The Committee noted the responses to the queries raised at the previous meeting.

Unconfirmed

8 Activity management

Mr Pokiha spoke to the Activity Management templates for the Roading & Footpaths group of activities.

Ms Saywell and Mr Young spoke to the Activity Management templates for the Water, Sewage and the treatment and disposal of Sewerage, and Stormwater groups of activities.

Ms Prince spoke to the Activity Management template for the Community & Leisure Assets group of activities.

Ms Saywell spoke to the Activity Management template for the Rubbish & Recycling group of activities.

The Committee requested the following information be provided to a future meeting:

- The 'queue-jumping' policy on cost sharing for infrastructure works.
- Cost/Benefit analysis of using slip-lining compared with trenching.
- summary report on the results of the seismic investigation report if=n treatment plants
- Whether or not the mulched green-waste from the District's Waste Transfer Stations could be utilised by the Parks & Reserves Team.
- Update on the Enviroschools programme being run within the District.

Mr Pokiha would get the details for the owner of the Turakina Valley Rood property wanting a 100 metre sealed section outside his house so he could make an estimate of the cost.

Resolved minute number **16/AIN/066** **File Ref**

That the activity management templates for June 2016 for Roading, Water (including rural water supplies), Sewerage and the treatment and disposal of sewage, Stormwater drainage, Community and leisure assets, and Rubbish and recycling be received.

Cr Belsham / Cr Rainey. Carried

9 Emergency Works Update, June 2016 – roading structures

Mr Waugh and Mr Mestyanek spoke briefly to the report and tabled information.

Resolved minute number **16/AIN/067** **File Ref** 6-RT-5-18; C1018

That the report 'Emergency Works Update, June 2016 – roading structures' be received.

His Worship the Mayor / Cr Sheridan. Carried

Unconfirmed

Resolved minute number **16/AIN/068** **File Ref** 6-RT-5-18; C1018

That the value of C1018 (Bundle 4) for retaining walls on Turakina Valley Road awarded to Higgins Contractors Limited be increased to $266,544.98.

Cr Sheridan / Cr Belsham. Carried

Mr Mestyanek outlined the work being done on the historic Mangaweka Bridge. A detailed report would be brought to the Committee's August meeting.

10 LED streetlight replacement program

Mr Black spoke briefly to the report outlining the costs associated with changing to LED streetlighting and the rationale behind the change.

Resolved minute number **16/AIN/069** **File Ref** 5-CM-1:C1005

That the report 'LED streetlight replacement program' be received

Cr Rainey / Cr Jones. Carried

11 Petition from Whangaehu residents to improve safety of entrances/exits to the village

Mr Pokiha spoke briefly to the report.

The next steps were to have an in-depth conversation with NZTA on the feasibility of constructing a new entrance to the Whangaehu Village. A letter outlining these steps would be sent to the petitioner.

Resolved minute number **16/AIN/070** **File Ref** 6-RT-5-6

That the petition from Whangaehu residents to improve safety of entrances/exits to the village and the memorandum from the Council's Operations Manager be received.

His Worship the Mayor / Cr Jones. Carried

Unconfirmed

Resolved minute number **16/AIN/071** **File Ref** 6-RT-5-6

That the feasibility of constructing a new entrance into Whangaehu from SH-3 be discussed with the New Zealand Transport Agency and the outcome reported to a subsequent meeting of the Assets/Infrastructure Committee.

His Worship the Mayor / Cr Jones. Carried

Resolved minute number **16/AIN/072** **File Ref** 6-RT-5-6

That a letter be sent to David Bebarfald thanking him for the petition and advising the steps which Council is taking to investigate the feasibility of a new entrance into Whangaehu from SH-3.

His Worship the Mayor / Cr Sheridan. Carried

12 Reinstatement of heavy trailer parking near Wyleys Bridge

Mr Pokiha spoke briefly to the item.

The Committee acknowledged that it was not practical to carry out the works suggested by Mr Matthews in his submission to the 2016/17 Annual Plan.

The Committee suggested that staff should approach Whanganui District Council about a cost-share arrangement for this work given that the benefit was to members of that district.

13 Requested signage change on SH1 for Mangaweka

Mr Pokiha spoke briefly to the item.

The Committee noted the process that needed to be undertaken to formally change the name of Mangaweka to 'Mangaweka Village'.

14 Resource consent compliance update

Ms Saywell spoke briefly to the report, highlighting the areas of non-compliance and the steps being taken to remedy these.

Resolved minute number **16/AIN/073** **File Ref** 5-EX-3

That the report 'Consent compliance – June 2016' be received.

Cr Belsham / Cr Rainey. Carried

Unconfirmed

15 Renewal of Marton wastewater treatment Plant – Update

Ms Saywell spoke briefly to the report.

It was suggested that a conversation needed to be had with Mid-West Disposals Ltd to understand the reasoning behind the recent increase in the amount of pre-treated leachate be disposed into the Marton Wastewater Treatment Plant.

Resolved minute number **16/AIN/074** **File Ref** 6-WW-1-4

That the report ''Renewal of Marton Wastewater Treatment Plant as at 7 July 2016' be received.

Cr Sheridan / Cr Jones. Carried

16 Extended weekend hours trial – Marton Waste Transfer Station

Ms Saywell spoke briefly to the report.

Cr Harris arrived 11:16 am.

The Committee noted that the timing of the trial was not ideal, as it coincided with the end of daylight-savings and requested that the trial be run again during daylight savings 2016/17. Members asked for a detailed breakdown of the costs associated with this additional trial be brought to the next meeting.

Resolved minute number **16/AIN/075** **File Ref** 6-SO-1-5

That the memorandum 'Extended weekend hour's trial – Marton Waste Transfer Station' be received.

Cr Jones / Cr Belsham. Carried

Resolved minute number **16/AIN/076** **File Ref** 6-SO-1-5

That the trial of extending the opening hours of the Marton Waste Transfer station be repeated aligning with the period of daylight saving during the 2016/17 year.

Cr Belsham / Cr Sheridan. Carried

Resolved minute number **16/AIN/077** **File Ref** 6-SO-1-5

That the Assets/Infrastructure Committee requests that the potential for extending the opening hours of the Bulls Waste Transfer Station be investigated.

Cr Harris / Cr Ash. Carried

Unconfirmed

17 Taihape Town Hall heating

Ms Prince spoke briefly to the report.

The Committee discussed the need for any asset added to the Town Hall to be transferrable to a potential new building to maximise the value. The Committee was informed that the biggest cost to heating the Town Hall would be the cost of re-wiring as the existing wiring was not suitable for installing a new heating system.

The Committee asked for clarification at the next meeting the basis for not allowing diesel heaters in the hall, and the authority of that view.

Resolved minute number **16/AIN/078** **File Ref** 6-CF-3-5

That the report 'Taihape Town Hall Heating' be received.

His Worship the Mayor / Cr Sheridan. Carried

Resolved minute number **16/AIN/079** **File Ref** 6-CF-3-5

That investigations are undertaken on purchasing a free-standing generator and heating system for use in Council's Taihape operations and reported back to a subsequent meeting of the Assets/Infrastructure Committee.

His Worship the Mayor / Cr Jones. Carried

The Committee considered that if Council made arrangements for heating for a particular event, the organisers would not be required to make a financial contribution to that.

Resolved minute number **16/AIN/080** **File Ref** 6-CF-3-5

That if a request for heating in the Taihape Town Hall is made at least two months ahead of the event, Council will consider sourcing a suitable generator and heaters.

His Worship the Mayor / Cr Belsham. Carried

18 Swim 4-All, 2015/16

Ms Servante spoke briefly to the report (and supplementary tabled report), highlighting the need for a formal audit process of the content of the programmes provided by the operators of Council's swimming pools and the issues encountered during the recent season.

Resolved minute number **16/AIN/081** **File Ref** 1-CO-4-7

That the report 'Swim-4-All' 2015/16 be received.

His Worship the Mayor / Cr Rainey. Carried

Unconfirmed

Resolved minute number **16/AIN/082** **File Ref** 1-CO-4-7

That That Council expresses its preference that the cost of lessons per child under the Swim 4 All programme be the same at both Taihape and Marton, and that this preference be conveyed to the pool operators (Nicholls Swim Academy and Taihape Community Development Trust).

Cr Sheridan / His Worship the Mayor. Carried

Resolved minute number **16/AIN/083** **File Ref** 1-CO-4-7

That the Chief Executive initiate discussions with Council's partners in the Swim 4 All programme, namely the pool operators (Nicholls Swim Academy and Taihape Community Development Trust) and the primary school principals, to address issues identified in the report "Swim 4 All 2015/16":

- A range of providers requires a strengthened quality assurance regime to ensure that an equal service is provided for all participants and health and safety obligations are met
- Discussions about the contribution of the programme toward the operational costs of the pools
- Shared responsibility for ongoing fundraising between Council and the schools
- The role of pre-school programmes that feed into early years at primary schools
- Ensuring equity in service delivery between north and south, urban and rural
- Maximising participation from all schools in the District

Cr Sheridan / Cr Ash. Carried

19 Marton Park Management Plan – Draft for public consultation

Ms Gray spoke briefly to the report.

It was suggested that a less formal approach be taken to this consultation process, with the use of posters and shop-fronts within the town to stimulation conversation within the Community.

Resolved minute number **16/AIN/084** **File Ref** 1-CP-4-7

That the memorandum 'Marton Park Management Plan – Draft for Public Consultation' be received.

Cr Harris / Cr Belsham. Carried

Unconfirmed

Resolved minute number **16/AIN/085** **File Ref** 1-CP-4-7

That the Assets/Infrastructure Committee recommends to Council the adoption of the draft Marton Park Management Plan for public consultation from 5 August 2016 – 7 October 2016.

Cr Sheridan / Cr Jones. Carried

20 Centennial Park – issues raised in submissions to 2016-17 Annual Plan

The Committee noted the update provided on the issues at Centennial Park raised in submissions to the 2016/17 Annual Plan.

21 Proposed sale of Council-owned properties in Bulls

Mr Hodder informed the Committee that a schedule of properties in Bulls that could be sold to help fund the development of the Bulls Multi-Purpose Community Centre and that all of the properties had been assessed. Through this assessment several issues had come up with some of the properties and these were currently being worked through to find suitable solutions.

22 Customer satisfaction levels from Residents Survey 2016: Assets and Infrastructure

Mr Staric spoke briefly to the report.

Resolved minute number **16/AIN/086** **File Ref** 5-FR-1-2

That the report "Customer satisfaction levels from Residents Survey 2016: Asset & Infrastructure" be received.

Cr Jones / His Worship the Mayor. Carried

Resolved minute number **16/AIN/087** **File Ref** 5-FR-1-2

That, following feedback from the Assets/Infrastructure Committee, the issues identified as requiring more focus/improvement are input into the project to establish, implement and monitor customer service standards across the Council organisation.

Cr Harris / Cr Sheridan. Carried

23 Late items

Nil

Unconfirmed

24 Future items for the agenda

An update on the Bulls effluent disposal site (because without this Bulls is unable to be deemed a motor-home friendly town)

25 Next meeting

Thursday 11 August 2016, 9.30 am

26 Meeting closed

12.36 pm.

Confirmed/Chair: _____

Date: _____

Unconfirmed

Attachment 2

Memorandum

To: Assets/Infrastructure Committee

From: Samantha Whitcombe

Date: 5 August 2016

Subject: **Queries raised at previous meetings**

File: 3-CT-13-1

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1 'Queue-Jumping Policy' for seal extensions etc.

Attached (as Appendix 1) is the 'queue-jumping policy' as presented in the 2006/16 LTCCP (vol. 3, pages 43-44). A similar policy is in the 2004/14 LTCCP (vol. 3, pages 64-66). The policy envisaged a targeted rate on the community, the Ward and the District – determined by the perceived proportionate benefit.

The 'queue-jumping policy' , which was part of the Revenue and financing policy in the 2016/16 LTCCP, was not part of the adopted Revenue and financing policy in the 2009/19 LTCCP. Instead, the policy provided that funding of upgrades other than the normal seal extension programme would be determined by Council on a case-by-case basis following consultation with affected communities (see p.143). That remains the current situation.

In short, there is no policy as such, and there is no ability to levy a targeted rate. So, if the work discussed at the previous meeting of the Committee to seal a 100 metre strip of Turakina Valley Road is agreed to, any cost not met by the property owners will be met from the roading budget (i.e. a charge against the unsubsidised roading budget).

2 Cost-benefit analysis of using slip-lining technology vs. trenching

This analysis will be provided to the Committee's September meeting

3 Feasibility of Parks & Reserves Team using mulched green-waste

3.1 The green waste obtained from the RDC Waste Transfer Stations is not suitable for mulch because it is mixed with weeds and plants rich in pathogens. This needs to be composted over a period of time to remove weeds and condition the soil. This is best left to appropriately set up composting operations.

3.2 The green waste is presently taken to Feilding WWTP to be used as a bulking agent to mix with WWTP sludge – including sludge removed from ponds at the Hunterville and Bulls WWTP sites. The cost to RDC is minimal including only the loading and transport costs.

4 Update on Enviroschools programme being run in the District

4.1 Five Rangitīkei schools participated in programme for the year ended 30 June 2016.

a) Bulls School – Green day to launch programme
b) Nga Tawa Diocesan – School gave presentation at workshop of its waste audit
c) Marton Childcare Centre – Unveiling of new Enviroschools sign
d) Pukeokahu School – Change of principal. School continuing with native tree planting.
e) South Makirikiri School – Reintroduction to programme due to change in teachers. School focusing on Maori perspectives.

4.2 Information of the programme is attached as Appendix 2.

5 Outcome of discussions with NZTA on a new entrance to Whangaehu (David Beberfald petition)

6 As this area intersects with State Highway Three, discussions were undertaken with NZTA and they have responded accordingly:

- NZTA are unsure what the issue is and why the intersection requires upgrading
- A review has been carried out from a safety aspect and the intersection is ranked 'low risk'. There are no crash records for the past five years, and only three crashes total over 10 years.
- The intersection would not be a priority for upgrading with respect to safety.
- The proposed new intersection would need to have better sight lines that the existing one and a superior layout.
- The other intersections would need to be closed.

This question was discussed at a public meeting in Whangaehu on 29 July 2016. It is best now for the local residents need to approach NZTA directly about their concerns and preferred solution.

7 Cost-sharing with Whanganui District Council for the reinstatement of heavy trailer parking near Wyleys Bridge

Mr Mathews has also presented a petition about the same issue to Whanganui District Council regarding the same issue. They indicated that Mr Mathews is requesting an upgrade that far exceeds what was there previously – and, as such, Whanganui is not amenable to the proposed upgrade or sharing costs with Rangitikei.

From Rangitikei's perspective, this view also applies, in that what Mr Mathews is seeking on this side of the bridge also exceeds what was there previously.

8 Breakdown of hourly costs for trial extended hours at Marton Waste Transfer Station

26 Sept 2016 - 2 April 2017								
Marton W	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17
No. Days/	0	10	8	8	8	8	8	2
No. Hours	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Total Hou	0	15	12	12	12	12	12	3
Rate/Hr	$59.29	$59.29	$59.29	$59.29	$59.29	$59.29	$59.29	$59.29
Amount cl	$0.00	$889.35	$711.48	$711.48	$711.48	$711.48	$711.48	$177.87
						Total extra cost		$4,624.62

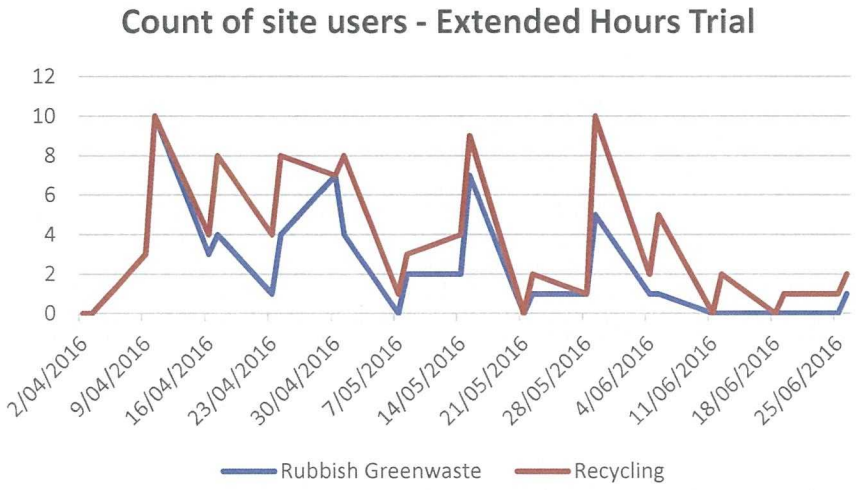
9 Potential to extend opening hours at Bulls Waste Transfer Station

26 Sept 2016 - 2 April 2017								
Bulls WTS	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17
No. Days/	0	10	8	8	8	8	8	2
No. Hours	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Total Hou	0	15	12	12	12	12	12	3
Rate/Hr	$56.76	$56.76	$56.76	$56.76	$56.76	$56.76	$56.76	$56.76
Amount cl	$0.00	$851.40	$681.12	$681.12	$681.12	$681.12	$681.12	$170.28
						Total extra cost		$4,427.28

10 Marton Waste Transfer Station – extended hour's trial results.

10.1 Full report tabled for the Committee's meeting on 14th July 2016. This highlighted:

- The average number of people who visited the Marton WTS over extended period for rubbish was 2.2 people and the average who visited the site for recycling was 1.5 people.
- Range of visitors: Rubbish area 0-10 people
- Range of visitors: Recycling area was 0-4 people
- No more people will be using the WTSs. The net result is that visits will be spread over a longer day light period.



11 Clarifying permitted heating requirements in the Taihape Town Hall

The issue here is really twofold :

Fuel – if power is not used than the fuel source gas or diesel has to be externally supplied (HSNO Regulations for class 2(gasses) and 3 substances (flammable liquid)). The installations of these classes have to meet all HSNO regulations as per their individual classes, and if they meet these they then required to further meet the Building Code G- Services and Facilities, in particular G10 – Piped services and Clause 11 Gas as an Energy Source. If unventilated heat sources are used they have to comply with the following Building Code clauses after taking the above into account.

Unventilated Heaters –

G4 Ventilation – Objective of this provision is to safeguard people from illness or loss of amenity due to lack of fresh air.

Spaces within buildings shall be provided with adequate ventilation consistent with their maximum occupancy and their intended use.

Spaces within buildings shall have means of ventilation with outdoor air that will provide an adequate number of air changes to maintain air purity.

Buildings shall have means of collecting or otherwise removing the following products from the space in which they are generated.

(e) Poisonous fumes and gasses
(f) Flammable fumes and gasses
(g) Airborne particles
(h) Bacteria, viruses or other pathogens
(i) Products of combustion

Contaminated air shall be disposed of in a way which avoids creating a nuisance or hazard to people and other property.

The quantities of air supplied for ventilation shall meet the additional demands of any fixed combustion appliances.

G5.1 (c) Safeguard people from injury caused by unsafe installations.

C2.1 Prevention of fire occurring: Fixed appliances using controlled combustion and other fixed equipment must be designed, constructed, and installed in buildings in a way that it reduces the likelihood of illness or injury due to fire occurring.

The Ministry of Health also provides guidance (attached as Appendix 3).

The main point is not that these heating methods cannot be used is that when they *are* used they need to meet the above requirements. If the heating is properly installed and ventilation is met and the fuel source is outside the building there are no issues.

Samantha Whitcombe
Administrator

Appendix 1

- A targeted rate for the Southern Water Supply feasibility study. This would fund a report into the feasibility of the scheme. This rate is set on capital value and is levied differentially whereby the ratepayers of the Marton and Bulls Wards pay two thirds and the District ratepayers the remaining third.

A Targeted Rate is used when:

- Council considers that a targeted rate is fairer than the use of other existing rating tools as a proxy for a user charge in the particular activity being funded, in the consideration of the benefit derived from the activity (i.e. Water and Sewer rates).
- Council considers that transparency (such as the Roading Rate) is important because a targeted rate makes it easy for people to identify what they are paying for and how much they contribute.
- It is relevant to have regard for particular attributes of the land such as location, whether a service is provided or not, the number or nature of those connections, the land area, or area that is paved or built on etc.

Footpath Construction, Road Upgrading and Community Projects - (Queue Jumping Policy)

From time to time a community requests Council to construct a new footpath, upgrade the standard of a road or undertake some form of town beautification such as paving a main street. Council may, on a case-by-case basis, decide to go ahead with the construction or upgrading.

Please note that the roading activity does allow for a program of gradual new footpath construction and road upgrades but these are covered under the roading funding policy. This activity covers projects that have, in effect, jumped the queue.

It must be noted that the existence of this policy DOES NOT commit Council to the approval of any project requested by communities.

The benefits of this activity are improved access, and a higher standard of roads and footpaths in the District. In many cases the provision of these services will involve the betterment of nearby properties.
The improvement of road safety and economic benefits also flow from the provision of these services. The benefits accrue mainly to nearby property owners and road users. It was recognised that once these services have been provided no one can be excluded from their benefits. However, it was also acknowledged that some groups of people would benefit more than others.

As the groups who benefit from any particular project will vary from project to project this policy cannot determine exact percentages of expenditure that will be funded by what groups. Who benefits and how an approved project is to be funded will need to be established on a case-by-case basis. However, the following guidelines for determining the funding of such projects are:

- The projects can be loan funded, with interest payments funded as operating expenses and loan repayments funded from either depreciation funding or as operating expenses;

- The promoters of the project will need to demonstrate that they have at least a third of the required funding. This can either be in cash or evidence that a group within the community is prepared to be rated directly for this portion of the projects cost.

For example, if the project was a main street upgrade at least 75% of shop owners surrounding the development would need to indicate that they are prepared to be rated by way of special rate for this proportion of the funding (in lieu of cash up front).

The remainder of the funding could come from rating the community, the Ward and the District.
The proportion of community, Ward or District funding would be determined by the amount of perceived benefit to the District. If the project has no perceived benefit for the District the proportion funded by the District would be either nothing or a small gesture of solidarity no more than 10%.

It is anticipated that the special rate and ward rate for these community projects will be separate targeted rates with the method of rating (e.g. capital value, uniform annual charge) being determined by the incidence of benefit among the community. The District proportion of the rate will be added to the roading rate.

The user portion is collected from properties that immediately adjoin the construction, which are likely to be a small number.

The non-user portion will be funded via a new-targeted footpath or road upgrade development rate, which will add some administrative costs to establish. However, such costs will not be significant. Separate identification has the benefit of allowing the communities and the District to question whether the activity is worth the cost of providing the service.

Fees and charges

Fees and charges will be applied when it is assessed that the level of benefit to an identified beneficiary/exacerbator justifies the seeking of such user charges; and when

- Fees and charges represent the fairest method of seeking contribution from an identified beneficiary or exacerbator where a high level of private benefit can be established: and
- There are identifiable and distinct groups/exacerbators identified during Council's consideration of each Activity, and
- It is economic to collect the fee.

Interest and dividends from investments

Council invests surplus as a corporate activity for the benefit of the whole Council. The Investment Policy sets the parameters by which external investments are managed.

All income from external investing is attributable to the Investment Activity, which in turn offsets the general rate requirement.

In addition, Council's internal Treasury function borrows and lends funds to activities in much the same way as a bank would to its clients. The internal rate of return is set at the 90-day bill mid-rate each quarter.

Appendix 2

Annual Summary 2015/2016
Enviroschools Horizons Region - Rangitikei

The Enviroschools programme supports children and young people to plan, design and implement sustainability actions that are important to them and their communities. The programme provides pathways from early childhood through to primary, intermediate and secondary school. Through the collaborative approach of building strong relationships and sharing information, Enviroschools are growing.

Enviroschools is supported by a national team, in partnership with nearly 100 national and regional partners, including the majority of New Zealand's councils. Facilitators from these partner organisations work with a suite of resources to progress the sustainability journey.

In 2016 the total number of Enviroschools reached over 1,000. This network embraces over 250,000 children and young people, their whānau and thousands of their teachers. A focus on the journey, not just the destination, supports long-term participation as lasting changes can take many years to become embedded but every step is a change in itself. With over a decade of development and growth, people are beginning to refer to Enviroschools as a movement for positive change towards a generation of innovative and motivated young kiwi who instinctively think and act sustainably.

Across the Horizons Region, the profile of Enviroschools has continued to increase over the past 12 months, gaining wide support from schools, councils and the community. This has generated a greater capacity for facilitation through funding support, allowing for new Enviroschools region-wide as well as new Facilitators. Six out of seven Territorial Authorities now support the programme across our Region, with many affirming their support in the long-term. The regional facilitation team has grown to include four Facilitators, including the appointment of a new Facilitator for the Ruapehu District. It is exciting to see the Enviroschools programme become more established in our Region, and as awareness is growing, more and more schools and early childhood centres want to join. This growth positively changes the lives of students and whānau, the communities in which they live, and the environment on which we all depend.

Regional Vision for Enviroschools

Re-establish the Enviroschools kaupapa and support networks in and between our current Enviroschools in the Horizons Region. We aim to provide encouragement and support to allow our Enviroschools to move forward on their individual journey and establish a time when all schools in our Region are working towards a self-directed approach towards learning for sustainability.

2015-2016 Summary

The role of the Rangitikei Enviroschools Facilitator has been to guide and support schools and early childhood centres on their journey as an Enviroschool. This has involved resourcing, networking, training and mentoring. In the Rangitikei District there is a large diversity between the Enviroschools. They are not only diverse in size with Pukeokahu School having just 11 students while Bulls School has around 180; there is also diversity in ages with Marton Childcare Centre catering for preschool aged children and Nga Tawa Diocesan School at the other end of the age range providing private secondary school education for girls. In addition, there is a diverse range of deciles ranging from decile 5 through to 9. Due to these differences in distance, location, size and available funds, the exciting challenge as an Enviroschools Facilitator is to support each Enviroschool individually and cater for their specific needs whilst also managing time and budget.

The main goal for this year has been to welcome and train the Rangitikei Facilitator, and for the Facilitator to work closely with each Enviroschool as they begin their journey as Enviroschools. Over the last 12 months the Facilitator has covered 942km visiting the Rangitikei Enviroschools, and spent a total of just over 58 hours facilitating (this includes time spent emailing, holding workshops, attending events, resourcing and networking between Enviroschools) and 13 hours travelling.

The Facilitator has also prepared and run two cluster workshops for Enviroschools and Friends of Enviroschools.

1. The first cluster workshop was a property tour in Marton, where Louise Knight showed us how she operates a no-dig garden system. Permaculture principles underpinned everything she did and Louise grows a large variety of foods from around the world, experimenting with what works in this climate. Teachers got to see small scale farming and gardening and be inspired by how much can be achieved by one person and a small patch of land.
2. The second cluster workshop was around zero waste and was held at Nga Tawa Diocesan School. The Envirogroup made a presentation on how they undertook a waste audit and how that led to the recycling systems they are trialling at the school. It was very inspiring to hear from the Envirogroup and see the leadership they are showing through this journey. This workshop was also a chance for teachers to network and share resources on the subject.

Professional development for the Facilitator was a huge focus for the year. In order to have a Facilitator that is confident and knowledgeable they need to have access to opportunities to do so. As well as the usual Level 1 Training, the professional development included: a Secondary Hui in Wellington to look at how Enviroschools can work in a secondary school context; Māori Perspectives training at Te Mauri Tau in Whaingaroa (Raglan) to better understand how to embed Māori perspectives and weave into an Enviroschools journey; a full-day workshop on facilitation techniques that could be applied directly to Enviroschools work with schools; and attending reflection and celebration days outside of the Rangitikei District at both Kimbolton School in Feilding and Hukanui School in Hamilton.

Individual Enviroschool Summaries

Bulls School

At the start of the year, workshops were held for all staff at Bulls School on introducing the programme as well as setting goals for the first year. During Term 1 2016 a new Lead Teacher was appointed to the role and has been very proactive in engaging the Facilitator to support. During Term 2 the Envirogroup was set up with representatives from each class. In July there will be a 'Green Day' as a launch of the programme with workshops and fun activities for the students and community members. It is exciting and encouraging to see Bulls School taking such initiative toward implementing the Enviroschools Programme at their school.

Marton Childcare Centre

Marton Childcare Centre made an immediate Enviroschools impact in their community with an unveiling of their new Enviroschools sign. The Rangitikei Mayor, as well as the local Facilitator and Regional Coordinator, were in attendance alongside families of the centre and local community. Families heard about their commitment to the programme and what it means to them and afterwards enjoyed a shared kai.

Marton Childcare Centre have been focusing on their outdoor area with designs of paths and gardens using mostly recycled materials. This includes vegetable gardens and native plantings.

Nga Tawa Diocesan School

In Term 2 2016, the cluster workshop was held at Nga Tawa Diocesan School where their Envirogroup had the chance to present to teachers from other Rangitikei Enviroschools on what they have been doing with regards to their recycling programme. This was very inspiring and great to see the leadership coming through from the group. All the teachers were impressed with the work that has been put in and how thorough they had been with their waste audit and research into various recycle systems. It is exciting to think what they will achieve in the next 12 months.

Pukeokahu School

Pukeokahu School have been focusing on native tree planting. Unfortunately, the Principal has moved on and there is now an interim Principal. We are waiting to hear who the new Principal will be when they are appointed in Term 4 2016 before further Enviroschools momentum can be gained at the school.

South Makirikiri School

The Facilitator ran a reintroduction to the Enviroschools Programme with all South Makirikiri School staff. They have appointed two Lead Teachers and their focus for this year is Māori perspectives. They plan to do this with marae visits, kapa haka and exploring their local environment and its history.

Next Steps for 2016-2017

The Facilitator plans to hold cluster workshops each term and will look at hosting these at each of the Enviroschools so that teachers and students get a chance to showcase how they do things and others get the chance to see that in action.

Recycling and waste systems have been a focus for most of the schools and would like to see those systems running smoothly whilst looking at how teachers can deepen the learning behind these actions and perhaps extend further on the difference they can make through these processes.

Water is a major part of our natural environment and ecosystem and the Facilitator would like to highlight the importance of water and what is available to schools to explore this topic further. This will include water conservation, water quality and connecting and engaging with local waterways.

As we move into the fourth year of facilitation, it is exciting to see the Enviroschools Programme continue its forward momentum. As a result we are officially welcoming new funding partners to the Region, new Enviroschools to the network and new Facilitators into the regional facilitation team. A stronger Enviroschools network in our Region means greater potential benefits for the community; fostering student empowerment and community involvement through action projects which generate discussion, participation and awareness of local environmental issues and sustainability.

Thank you for being a part of this growing network, and for continuing to support your local Enviroschools on their journey to become more sustainable.

Appendix 3

Unflued gas heaters

Heating provides warmth and comfort during winter, especially for people living in colder climates. However, unflued gas heaters release polluting gases directly into the room that can potentially harm your health.

This page provides information for householders and operators of schools, aged care facilities, and other community facilities on the health risks of unflued gas heaters and ways to avoid or reduce those risks.

What is an unflued gas heater?

An unflued gas heaters burns gas to produce heat and has no flue or chimney to carry the combustion products outside or away. Some are portable and are plugged into a gas outlet through a wall or floor socket with a flexible hose, or may be LPG cabinet heaters. Others may be fixed to the wall.

Patio heaters are another type of unflued gas heater. This type of heater should never be used indoors.

What air pollutants do unflued gas heaters produce?

Unflued gas heaters produce a number of pollutants as a result of combustion. Pollutants that can harm your health include nitrogen dioxide and carbon monoxide.

Unflued gas heaters also produce water vapour that can indirectly affect health by increasing the growth of moulds and dust mites.

The amount of air pollutants an unflued gas heater will produce can vary depending on:

- the type of heater
- the way the heater is installed
- how you use the heater
- how often the heater is serviced.

In addition, the level of air pollutants in the room will vary depending on:

- the way you use the heater
- the size of the area you are heating
- how effectively ventilation removed pollutants from the area.

What are the potential health effects of air pollutants?

Unflued gas heaters increase the level of indoor air pollutants and also the incidence of respiratory problems amongst some people in the building.

Health effects from nitrogen dioxide and carbon monoxide may occur immediately at the time of exposure or they may occur sometime later.

Some people are more susceptible than others and may be more likely to suffer adverse health effects.

For example, there is a high rate of childhood asthma in Australia and New Zealand, and so care needs to be taken in the choice of heater, particularly when children or the elderly are involved.

Nitrogen dioxide is odourless and invisible at levels that may harm your health. People with asthma are particularly susceptible to the effects of nitrogen dioxide and may experience symptoms more often when using or exposed to an unflued gas heater.

Carbon monoxide is also invisible and has no odour or taste. It deprives the body of oxygen, leading to impaired thinking and reduced alertness.

If the level of carbon monoxide in a room goes above 'safe levels' people with heart disease may get chest pain or angina. Smokers with heart disease are particularly at risk. Young children, unborn babies and the elderly may also be affected.

Exposure to very high levels of carbon monoxide can cause carbon monoxide poisoning. This can affect anyone. Symptoms of carbon monoxide poisoning include tiredness, shortness of breath, headaches, dizziness, nausea, weakness and/or confusion.

Exposure to extremely high levels of carbon monoxide can cause death.

What should I do if I have an unflued gas heater?

There are several things you can do to avoid or reduce your exposure to pollutants from unflued gas heaters.

- The room needs to be well ventilated.
- Keep internal doors and at least 1 window open to allow fresh air to enter the room.
- Check that room vents are not blocked.
- Never use an unflued gas heater in the room where you sleep, in a bathroom, caravan or tent.
- Minimise the length of time you use an unflued gas heater.
- Make sure your heater is installed by a licensed gas fitter.
- Read and follow manufacturer's instructions for using your heater.
- Have your unflued gas heater serviced by a qualified person at least once a year. Heaters that are not in good working order can release higher amounts of pollutants into the air. Do not do any maintenance on an unflued gas heater yourself.

What alternative heating options do I have?

If you are considering buying a heater; consider one that does not produce indoor air pollution, such as:

- flued gas heating or central heating, which carry pollutants outside
- an electric heater or reverse cycle air conditioner.

This page has been adapted, with permission, from publications developed by NSW Health and the Department of Human Services Victoria. It's available as a brochure from the enHealth website.

The enHealth Council, a subcommittee of the National Public Health Partnership, brings together top Environmental Health officials at representation from the Australian Institute for Environmental Health, the environment and public health sectors, the Indigenous community and the wider community. Further information is on the enHealth Council website. The New Zealand Ministry of Health is a member of the enHealth Council.

Find out more

For more information on unflued gas heaters and indoor air pollution, contact the public health unit of your district health board.

Page last updated: **29 March 2012**

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Other Ministry sites

Attachment 3

ROADING AND FOOTPATHS GROUP OF ACTIVITIES 2016/17

Jul-16

Performance measures in LTP/Annual Plan

What are they:	Targets	Progress for this reporting period	Progress to date
Road Condition: The average quality of ride on a sealed local road network measured by smooth travel exposure	96.5% The most recent measurement was in June 2014. The mean rating for the sampled District's roads was 98%. This is the percentage of the road distance travelled in the sample which met the specified service level	Nothing to report for this period	Nothing to report to date.
Road Maintenance: The percentage of the sealed road network that is resurfaced	8% of the sealed road network that is resurfaced	Nothing to report for this period	The beginning of the new year, nothing to report at this stage, however, planning to commence the reseal programme early November weather permitting.
The percentage of the unsealed road network which is remetalled during the year	At least 75% of network remetalled each year – 12,000m^3	2400m3 placed on the network this period.	2400m3 placed on the network this period.
Footpaths: The percentage of footpaths within the District that fall within the level of service or service standard for the condition of footpaths that is set out in the Council's relevant document (such as its annual plan, activity management plan, asset management plan, annual works programme or long term plan) Note: A five point grading system to rate footpath condition based on visual inspections 1) Excellent 2) Good 3) Fair 4) Poor 5) Very Poor	At least 80% of footpath lengths in CBD areas in Bulls, Marton, Hunterville and Taihape are at grade 3 or higher At least 65% of sampled footpaths lengths outside CBD areas are at grade 3 or higher At least 90% of sampled footpaths assessed at grade 5 are included in upgrade programme during the following two years.	A reassesment is being undertaken to align the inspection and actioning of faults identified as a result of such so that the decision making follows the rating identified in the visual inspection process. To date inspections have been carried by Bri-Ken but the out come of this has not clearly identified such things as trip hazards e.g. The responsibility has clearly been put back onto the contractor to identify.	Normal footpath maintenance being carried out.
Road Safety The change from the previous financial year in the number of fatalities and serious injury crashes on the local road network expressed as a number	No change or a reduction from previous year During the year 1 July 2015 and 30 June 2016, there were nil fatalities and 3 serious injury accidents.	No fatals or serious accidents to report for 16/17 year.	No fatals or serious accidents to report for the month of July.
Adequacy of provision and maintenance of footpaths, street-lighting and local roads (annual survey)	A greater proportion (than in the benchmark) or more than 10% of the sample believe that Council's service is getting better 2014/15 13% believed it was better than last year, 65% about the same, 21% worse	Processes are in place to ensure that the evidence required to give the required information is in place.	Commitement made to improve the service to our customers from Council.
Response to service requests The percentage of customer service requests relating to roads and footpaths to which the territorial authority responds within the time frame specified in the long-term plan.	95% after-hours callouts responded to within 12 hours 95% callouts during working hours, responded to within 6 hours 85% of all callouts resolved (i.e. completed) within one month of the request. Specific reference to callouts relating to potholes During 2014/15, 91% of footpath and road requests were responded to within time (256 requests) and 90% of footpath and road requests were resolved in time.	For the current month:47 callouts recorded with 38 responded to on time (81%) and 1 current (0.2%) Callouts after hours 10 (90%) responded to on time Potholes 3 (33% completed on time) Callouts completed (one month prior); Callouts received 26 with 17 completed on time (65%), with 0 current (0%)	Total callouts to date number = 47 (81% responded to on time) Number of callouts after hours = 10 (90% responded to on time) Number of potholes = 3 (33% responded to on time)
Roading Contract Performance			
Monthly update on the performance of Council's Roading contractor.	This is the first report as we head into the 16/17 year and of course year 2 of the contract. The aim is to lift the performace off the roading team overall again up a few notches. As previously indicated the first year for Higgins as the new contractor has been completed and there were a few hickups that tarnished somewhat the contractors performance regards the maintenance aspect of the contract. The June 15 storm event proved to be a major factor regards performance. Regular fortnightly operational meetings take place where all areas of the mantenence contract is discussed and action times put in place to ensure completed on time. There have been times also when Council management staff have been somewhat remiss by not giving a decision on a query being sought from the contactor as quickly as required so they are in a position to address the problem in the required response time. The commitement being shown now especially from senior management of Higgins has identified to Council there desire to perform and achieve the required outcomes of the contract.		

Requests for Service

What are they:	Responded in time	Completed in time*	Responded late	Completed late*	Response overdue	Uncompleted overdue*	Response current	Uncompleted current*
Bridges								
Maintenance (bridges)								
Culverts/Drainage								
Maintenance (culverts/drainage)	4	5	1	3	1			
Footpaths								
Maintenance (footpaths)	1				1			
Road Signs								
Maintenance (road signs)	2	1						

Roads								
Maintenance (roads - potholes only)	3	1		1				
Maintenance (roads - not potholes)	17	8	3	3	1			
Roadside Berm Mowing								
Rural/Urban berm mowing								
Roadside Weeds/Vegetation/Trees								
Maintenance (roadside weeds/vegetation/trees)	7			1	1			
Street Cleaning and Litter Bins								
CBD cleaning - Turakina and Mangaweka only	1	2		1				
Street Lighting								
Maintenance (street lighting)	3						1	

* Data is for the month PRIOR to allow for correct analysis

ROADING AND FOOTPATHS GROUP OF ACTIVITIES 2016/17

Jul-16

Major programmes of work outlined in the LTP/Annual Plan 2016/17

Pavement Rehabilitation	Route Position Length	Status	Start date	Completion date	
Wanganui Road	0-544		Jan-16	Early August	
		Report on the Wanganui Road Project. The vast majority of the work relating to the Wanganui Road Project has now been completed. Construction of the road pavement and the application of the first coat chip seal has been completed. The weather and the current road temperature has proven to be the main cause of the delay in being able to place the Final Asphaltic Concrete (AC) surfacing. Prior to the placement of the AC surfacing another chip seal surface will be placed, which will act as the bond between the surface and the AC. The road subgrade has become somewhat saturated with water in parts and needs to dry out before the AC can be applied. This has caused some potholing to the surface and the contractor has addressed this aspect with urgency. The final check to ensure that the road pavement strength is up to the required standard has been completed, and this is compliant. It is planned to place the AC surface as soon as there is a window of fine weather which allows the pavement to dry out sufficiently and the road temperature is to an acceptable level. The roadway has been swept to remove the surplus chip. Construction of the footpaths and access ways has now been completed and a site inspection with the contractor to confirm that the work is up to standard has been carried out and found to be compliant. The work required to re-establish the grass shoulders alongside the footpaths and the kerb, plus the property boundaries where the top soil has been placed, will require a spell of dry weather so these areas can be compacted properly and then grassed.			
Marton - Bond Street/Skerman Street (94m)		Initial investigations			
Marton - Wanganui Road/Skerman Street (70m)		Initial investigations			
Franklin Road (580m)		Work In Progress	Jul-16	Nov-16	
Okirae Road (338m)		Initial investigations			
Parewanui Road (1,403m)		Initial investigations			
Taihape-Napier Road (880m)		Initial investigations			
Te Moehau Road (450m)		Initial investigations			
Turakina Valley Road (721m)		Initial investigations			
Griffins Road (920m)		Design Complete	Sep-16	Dec-16	
Sealed Road Resurfacing (over 200m)	Route Position Length	Status	Start date	Completion date	
Broadway (Marton)					
Daniell Street					
Goldings Line					
Kauangaroa Road					
Koeke Road					
Leedstown Road					
McHardies Road					
Makirikiri Road					
Mangahoe Road					
Matawhero Road					
Mellingon Road					
Mill Street (Marton)					
Moa Street					
Mt Curl Road					
Neumans Line					
Oaklea Avenue					
Otuarei Road					
Ptaka Road					
Putorino Road					
Rangatira Road					
Ross Street					
Ruanui Road					
Stantialls Road					
Tennent Court					
Turakina Beach Road					
Turakina Valley Road					
Tutaenui Road					
Union Line					
Waiaruhe Road					
Wanganui Road					
Wellington Road					
Capex report 2016/17	cumulative to 30/09/2016	cumulative to 31/12/2016	cumulative to 30/3/2017	cumulative to 30/6/2017	Budget
Sealed road surfacing:					2,390,746
Drainage Renewals					500,000
Pavement rehabilitation					1,770,000
Structures component replacement					316,993
Traffic services renewal					224,900
Associated improvements					25,000
Unsealed road metalling					460,125
TOTAL					5,687,764
Streetlight renewals	Design/ Scoping	Tender/Contract docs	Under construction	Complete	
The proposed LED streetlight replacement program will initially target areas in Marton as there are several large streetlight circuits which intermittently suffer from outages due to overloading. Installation of LED's will reduce the connected load and alleviate these issues. Once this stage of the program is completed it is anticipated that the program will continue through to 2018 in other areas of the district as current renewal budgets allow. In 2018 progress will be re-assessed and specific funding may be sought through the 2018 – 2021 NZTA funding cycle					
Footpath Renewals	Design/ Scoping	Tender/Contract docs	Under construction	Complete	
Taihape: Robin Street	Design - 100% complete (length 70m)	This site part of contract 1007	contract has commenced carried over from 15/16		Crimpy's

Taihape: Hautapu Street	Design - 100% complete (length 73m)	This site part of contract 1007	contract has commenced carried over from 15/16		Crimpy's
Taihape: Hawk Street	Design - 100% complete (length 25m)	This site part of contract 1007	contract has commenced carried over from 15/16		Crimpy's
Taihape: Kaka Road	Design - 100% complete (length 160m)	This site part of contract 1007.	contract has commenced carried over from 15/16		Crimpy's
Monitor upgrades of footpaths in Turakina including the laying of chipseal					
Hunterville - Milne Street					
Taihape - Huia Street					
Taihape - Kuku Street					
Taihape - Mataroa Road					
Taihape - Swan Street					
Taihape - Toroa Street					
Taiahpe - Tui Street					
New Footpaths	Design/ Scoping	Tender/Contract docs	Under construction	Complete	
Bulls: 136-160 High Street (investigate costs only)	$40,000 -footpath concrete 1.4 wide plus 16 driveways. 180m				
Taihape: SH1 to Dixon Way (investigate costs only)	This particular project is a major one running from the town to Dixon way heading south and potentially will traverse along the SH. Discussions have been held with NZTA who are not receptive in giving approval.				
Ratana: Te Taitokerau and Seamer Streets (investigate costs only)	$42,000 Te Taitokerau length approx 230m - 1.4wide -10 driveways. Seamer street was identified to have a footpath on the opposite side of the street, but the recommendation is not to as a lot of parking of buses takes place along here.				
Bulls - High Street	The 16/17 Footpath Renewal Programme is still to be confirmed				
Marton - Mill Street					
Marton - Wilson Place					
Taihape - Swan Street					
Taihape - Pukeko Street					
Minor safety improvements	Design/ Scoping	Tender/Contract docs	Under construction	Complete	
Orchard Road	This site being investigated.	Roading contract			
Turakina Valley 3 - widening Majuba Bluff RP 9450-9660 (in conjunction with flood damage repair work)	Design completed.				
Other major programmes of work carried out during 2016/17					
Projects	Design/ Scoping	Tender/Contract docs	Under construction	Complete	
Turakin Valley Road - upgrade and sealing of 3.4km section between SH3 and Mangatipona (preliminary work prior to sealing)	Investigation complete				
Complete repairs to the damage casued by the June 2015 rainfall event.	Mostly Complete	90% have been tendered	Work in Progress		

WATER SUPPLY GROUP OF ACTIVITIES 2016/17

Jul-16

Performance measures in LTP/Annual Plan

What are they:	Targets	Progress for this reporting period	Progress to date
Safety of Drinking Water The extent to which the local authority's drinking water supply complies with: (a) part 4 of the drinking-water standards (bacteria compliance criteria), and	No incidents of non-compliance	Refer to comment in 'Progress to date'	Not Achieved. RDC Assets staff have recently met with Ministry of Health (MoH) Drinking Water Assessors about the annual reporting of this measure. It is understood that bacteria compliance will not be achieved for July.
(b) part 5 of the drinking-water standards (protozoal compliance criteria).	No incidents of non-compliance	Refer to comment in 'Progress to date'	Not Achieved. RDC Assets and Operations staff have recently met with the Ministry of Health Drinking Water Assessors about the annual reporting of this measure. MoH reporting from the meeting is still in progress, but 'incidents' have been identified for 2015/2016 year (also affecting July 2016) that will impact on compliance at Bulls, Hunterville Urban, Marton and Taihape.
Compliance with resource consents	No more than one incident of non-compliance with resource consents	Refer to June Consent Compliance Report	Marton WTP backwash and alum sludge discharge to settling ponds exceeded consent limits but a strategy is in place to review/update the consent before its expiry at the end of the year.
Number of unplanned water supply disruptions affecting multiple properties	Fewer unplanned water supply disruptions affecting multiple properties than in the previous year (there were zero unplanned water interruption during 2015/16)		None
Maintenance of the Reticulation Network: The percentage of real water loss from the local authority's networked reticulation system (including a description of the methodology used to calculate this).	Using a sampling approach, Water Outlook enables SCADA information to be interrogated in-house. The target is less than 40%	Refer to comment in 'Progress to date'	Benchloss for RDC on all urban water supplies has been completed for the 2015/2016 financial year. Figures with respect to percentages of water supplied are as follows: Bulls 8.5 Hunterville Urban 12.4 Mangaweka 14.3 Marton 21.4 Ratana 15.3 Taihape 37.9
Demand Management The average consumption of drinking water per day per resident within the territorial authority district.	600 litres per person per day	Refer to comment in 'Progress to date'	For the last financial year the average daily consumption (L/person/day) of drinking water is as follows: Bulls 520 Hunterville Urban 304 Mangaweka 570 Ratana 328 Taihape 463 Marton 593 Hunterville Rural 362
Fault Response Times Where the local authority attends a call-out in response to a fault or unplanned interruption to its networked reticulation system, the following median response times measured: (a) attendance for urgent call-outs: from the time that the local authority receives notification to the time that service personnel reach the site, and	Specified standard: 0.5 hours Target is less than the previous year During 2014/15, there were 27 notifications of urgent callouts. Of these, 24 were responded to in time. The request for service system is being adapted to record median response times to set the benchmark. In the interim, the benchmark used is the prescribed service standard.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.
(b) resolution of urgent call-outs: from the time that the local authority receives notification to the time that service personnel confirm resolution of the fault or interruption.	Specified standard: 24 hours Target is less than the previous year During 2014/15, there were 27 notifications of urgent callouts. Of these, 21 were resolved in time. The request for service system is being adapted to record median response times to set the benchmark. In the interim, the benchmark used is the prescribed service standard.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.

(c) attendance for non-urgent call-outs: from the time that the local authority receives notification to the time that service personnel reach the site, and	Specified standard: 24 hours Target is less than the previous year During 2014/15, there were 382 notifications of non-urgent callouts. Of these, 346 were responded to in time.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.
(d) resolution of non-urgent call-outs: from the time that the local authority receives notification to the time that service personnel confirm resolution of the fault or interruption.	Specified standard: 96 hours Target is less than the previous year During 2014/15, there were 382 notifications of non-urgent callouts. Of these, 342 were resolved in time.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.
Customer Satisfaction The total number of complaints received by the local authority about any of the following: (a) drinking water clarity	Total number of complaints is less than 45/1000	0.4/1000	0.4/1000
(b) drinking water taste	Total number of complaints is less than 45/1000	0/1000	0/1000
(c) drinking water pressure or flow	Total number of complaints is less than 45/1000	0/1000	0/1000
(d) continuity of supply, and	Total number of complaints is less than 45/1000	0/1000	0/1000
(e) the local authority's response to any of these issues expressed per 1000 connections to the local authority's networked reticulation system	Total number of complaints is less than 45/1000	0.4/1000	0.4/1000
Ensure fire-fighting capacity in urban areas through random flow checks at the different supplies	98% of checked fire hydrant installations are in compliance	Programme of hydrant checks is ongoing	Programme of hydrant checks is ongoing
What are they: Rural water supplies	Targets	Progress for this reporting period	Progress to date
Compliance with resource consents	No incidents of non-compliance with resource consents		Achieved.
The percentage of real water loss from the Council's rural water schemes	A sampling approach will be used. Water Outlook enables SCADA information to be interrogated in-house.		Cannot be completed as there is no appropriate industry methodology to assess the rural unmetered water supply.
Where the Council attends a call-out in response to a fault or unplanned interruption to its rural reticulation system, the following median times are measured (a) attendance time: from the time that the Council receives notification to the time that service personnel reach the site, and	The request for service system is being adapted to record median response times to set the benchmark. In the interim, the benchmark used is the prescribed service standard. However, given the nature of rural water schemes, the target is to continue achieving the benchmark. Specified standard: a) 24 hours	No change from previous reporting period	Connections on the rural schemes are not metered, therefore no formal assessment of water loss can be undertaken with any degree of certainty. In terms of day-to-day scheme operation, water losses are identified by the exceedances of the limits imposed in the relevant resource consents. Refer to the Jun Consent Compliance Report for a summary of consent compliance
(b) resolution time: from the time that the Council receives notification to the time that service personnel confirm resolution of the fault of interruption	b) 96 hours		

Requests for Service

What are they:	Responded in time	Completed in time	Responded late	Completed late	Response overdue	Completed overdue	Response current	Uncompleted current
Bad tasting drinking water								
Dirty drinking water	2							
HRWS Maintenance required	1	2		1				
HRWS No water supply	1							
Location of meter/toby/other utility	2	1		1				
Low drinking water pressure (non urgent)								
No drinking water supply (urgent)								
Replace lid (non urgent)	1	1						
Replace lid (urgent)								
Replace toby or meter	5	9		1				
Water flooding (other than stormwater and wastewater)								
Water leak - Council-owned network	9	2		2				
Water leak at meter/toby	4	2						

WATER SUPPLY GROUP OF ACTIVITIES 2016/17			July	
Major programmes of work outlined in the LTP/Annual Plan 2016/17				
Projects	Design/ Scoping	Tender/Contract docs	Under construction	Complete
Marton: Seismic strengthening ($300k)				
Marton: Complete replacement of line from Calico Line bore and commence design for replacement of Tutaenui Road falling main from Jeffersons Line to Town ($748k)				
Taihape: Water Treatment Plant structural renewals and various reticulation renewals, including design and preparation work for renewal of 1.2km of trunk main ($1.91M)				
Taihape: Reticulation upgrade for Dixon Way and Mangaone Valley Road ($174k)				
Bulls: Renewals to reservoirs and lift pumps.				
Bulls: Improved treatment storage, filtration, backwash and river pump station.				
Managaweka: Structural improvements to reservoir, river pump station, renewal of mains in Weka Street, Mangawhahariki Road and Broadway ($820k)				
Hunterville: Treatment and reticulation upgrades				
Rural Water Supplies: Treatment and reticulation upgrades at Hunterville, Erewhon and Omatane rural schemes.				
Other major programmes of work carried out during 2016/17				
Projects	Design/ Scoping	Tender/Contract docs	Under construction	Complete
Achieving ongoing compliance with a Drinking Water Standards and resource consents (improved water treatment and automatic monitoring for compliance)				
Marton: Broadway duplication ($140k)				
Taihape: Structural repairs as a result of seismic assessment ($129k)				
Taihape: Complete installation of lamella clarifier ($70k)				
Bulls: Design and construction of new reservoir as a result of seismic assessment ($633k)				
Mangaweka: Structural repairs as a result of seismic assessment ($80k)				
Ratana; water supply upgrade - new reservoir, bore and treatment system. (Est $1.6M)	Water treatment system under design	Water treatment building Tender awarded to Kiwispan Ltd. (est$130k) Water treatment processing awarded to Filtec. (est $630k). Application made to Ministry for extension of time to complete works June 2016. Approved.	Building works programmed Dec 2015 Treatment works programmed Jan 2016 Reservoir & Network Connections TBC. Meeting with Dairylands & Ricky Taiaroa, land ownership issues resolved. Meeting with Ratana Waipu Trust Feb 14 to sign lease. Survey plan to be prepared to give effect to lease. Site access to be upgraded. Building Consent application made. Building foundation works to commence early April. Delays with KiwiSpan NZ commencing the construction of the process building. Letter from the Engineer to the Contract (Hamish Waugh) to be sent to KiwiSpan NZ in the week beginning 9 May 2016 instructing them to order the building kit and commence construction of the foundations.	Water reticulation network completed. Reservoir completed. Bore installation completed. Land Entry (easement) agreement signed with Ratana Waipu Trust. Filtec has fabricated most of the equipment. this stored at their Auckland factory. Final Engineering design completed, Building Consent applied for. Works on treatment shed to commence mid June, shed completion mid October commissioning complete end Oct 2016.
Ratana: Completion of new treatment plant ($375k)				

SEWERAGE AND THE TREATMENT AND DISPOSAL OF SEWAGE GROUP OF ACTIVITIES 2016/17

Jul-16

Performance measures in LTP/Annual Plan

What are they:	Targets	Progress for this reporting period	Progress to date
Discharge compliance Compliance with the Council's resource consents for discharge from its sewerage system measured by the number of (a) abatement notices	No abatement notices	No abatement notices received.	Achieved
(b) infringement notices	No infringement notices	No infringement notices received	Achieved
(c) enforcement orders, and	No enforcement orders	No enforcement orders received	Achieved
(d) convictions received by the Council in relation to those resource consents	No convictions	No convictions received.	Achieved
Routine compliance monitoring of discharge consents	6 out of 7 systems comply		Achieved - no recorded overflows from the network this month.
System and adequacy The number of dry weather sewerage overflows from the Council's sewerage system, expressed per 1000 sewerage connections to that sewerage system	Not more than one per 1,000 connections	0/1000	0/1000
Fault response time Where the Council attends to sewerage overflows resulting from a blockage or other fault in the Council's sewerage system, the following median times are measured (a) attendance time: from the time that the Council receives notification to the time that service personnel reach the site, and	Specified standard: Urgent 0.5 hours Non-urgent 24 hours Target is less than the previous year. The request for service system is being adapted to record median response times to set the benchmark. In the interim, the benchmark used is the prescribed service standard. During 2014/15, there were 35 faults reported during first nine months of the year. Of these, 34 were responded to in time.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.
(b) resolution time: from the time that the Council receives notification to the time that service personnel confirm resolution of the fault of interruption	Specified standard: Urgent 24 hours Non-urgent 96 hours Target is less than the previous year. The request for service system is being adapted to record median response times to set the benchmark. In the interim, the benchmark used is the prescribed service standard. During 2014/15, there were 35 faults reported during first nine months of the year. Of these, 32 were resolved in time.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.
Customer satisfaction The total number of complaints received by the Council about any of the following: a) sewage odour b) sewerage system faults c) sewerage system blockages, and d) the Council's response to issues with its sewerage systems expressed per 1,000 connections to the Council's sewerage system.	Less than 18/1000 The request for service system currently does not show all complaints for any one incident so there is potential under-reporting. Benchmark figures from 2014/15 are: (a) 4/1000 (b) 7/1000 (c) 14/1000 (d) 10/1000* The total is 35/1000	(a)0/1000 (b)0/1000 (c) 0.5/1000 (d) 0.7/1000	(a) 0/1000 (b) 0/1000 (c) 0.5/1000 (d) 0.7/1000

Requests for Service

What are they:	Responded in time	Completed in time*	Responded late	Completed late*	Response overdue	Completed overdue*	Response current	Uncompleted current*
Caravan effluent dump station		2						
Maintenance (wastewater)		1						
Wastewater blocked drain	2	1						
Wastewater leak	1	1						
Wastewater network failure (follow up item only)								
Wastewater odour		1						
Wastewater overflow (dry weather)		1		1				
Wastewater overflow (wet weather)								

* figures are for month prior

SEWERAGE AND THE TREATMENT AND DISPOSAL OF SEWAGE GROUP OF ACTIVITIES 2016/17				Jul-16
Major programmes of work outlined in the LTP/Annual Plan 2016/17				
Projects	Design/ Scoping	Tender/Contract docs	Under construction	Complete
Bulls: Aeration improvements and installation of infiltration galleries and treatment plant upgrades ($1.2M)				
Marton: Upgrades or changes to treatment system to improve effluent quality, solids removal etc.				
Marton : Anaerobic pond desludging				
Taihape: Improvements to reticulation, particularly sewer main renewals in Linnet Street and Paradise Terrace ($304k)				
Taihape: Improvements at treatment plant including clarifier to protect membrane filters ($301k)				
Ratana: Upgraded treatment plant and reticulation ($1.9M)				
Koitiata: Upgraded reticulation (subject to consultation) ($119k)				
Other major programmes of work carried out during 2016/17				
Projects	Design/ Scoping	Tender/Contract docs	Under construction	Complete
Marton WWTP - essential renewals prior to full assessment and drafting of consent application ($302k)				
Hunterville WWTP - desludging ($80k)				
Review Trade Waste agreements				

STORMWATER GROUP OF ACTIVITIES 2016/17

Jul-16

Performance measures in LTP/Annual Plan

What are they:	Targets	Progress for this reporting period	Progress to date
Discharge compliance Compliance with the Council's resource consents for discharge from its stormwater system measured by the number of (a) abatement notices (b) infringement notices (c) enforcement orders, and (d) convictions received by the Council in relation to those resource consents	Council currently has no resource consents for stormwater discharges Horizons Regional Council has indicated that resource consents may be required in the future, but the timeline for this has yet to be confirmed. When this occurs the anticipated benchmark will be no abatement or infringement notices, no enforcement orders and no convictions.	Achieved	Achieved
System adequacy a) The number of flooding events that occurred in the District b) For each flooding event, the number of habitable floors affected (expressed per 1,000 properties connected to the Council's stormwater system) Note: This is a District-wide assessment The rules for the mandatory measures define a 'flooding event' as an overflow from a territorial authority's stormwater system that enters a habitable floor	Less than 1/1000 There are 4,122 properties in the District which pay the stormwater rate.	(a) 0/1000, (b) 0/1000	(a) 0/1000, (b) 0/1000
Customer satisfaction The number of complaints received by the Council about the performance of its stormwater system, expressed per 1,000 properties connected to the Council's stormwater system.	Less than 15/1000 The request for service system does not show all complaints for any one incident, so there is potential under-reporting.	2.6/1000	2.6/1000
Response time: The median response time to attend a flooding event, measured from the time that the Council receives notification to the time that service personnel reach the site.	1 hour There are very few such events, so the target set is identical with the benchmark.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.	As previously noted, the request for service system does not calculate the actual times taken, so is unable to provide a median time. In April 2016, Council staff developed a formula which allows the median times to be determined, and this formula was applied to provide median times for the nine-month Statement of Service Performance. The formula will be applied again at the end of the year to provide updated median times for the full twelve months.

Requests for Service

What are they:	Responded in time	Completed in time*	Responded late	Completed late*	Response overdue	Completed overdue*	Response current	Uncompleted current*
Stormwater blocked drain (non urgent)	2							
Stormwater blocked drain (urgent)	1							
Stormwater road surface flooding (non urgent)	3	1						
Stormwater road surface flooding (urgent)	5							

* figures are for month prior

STORMWATER GROUP OF ACTIVITIES 2016/17

Jul-16

Major programmes of work outlined in the LTP/Annual Plan 2016/17				
Projects	Design/ Scoping	Tender/Contract docs	Under construction	Complete
Marton: Hammond Street Stormwater Renewal	Retic network under investigation and design. (est $225k)	Contract awarded to Blackley Construction 30/4/16	Works programmed to commence late May. Construction Works commenced.	Outlet design complete. Discharge consent granted from Horizons. Stg1 works completed
Marton: Pukepapa Road Stormwater renewal				
Marton: Harris Street Stormwater renewal				
Marton: Wanganui Road Stormwater renewal				
Taihape: Paradise Terrace Stormwater renewal				
Other major programmes of work carried out during 2016/17				
Projects	Design/ Scoping	Tender/Contract docs	Under construction	Complete
Upgraded culverts, drains and inlet protection - Taihape, Mangaweka, Hunterville and Bulls				
Upgrades to mitigate future flooding in Marton and Bulls				

COMMUNITY AND LEISURE GROUP OF ACTIVITIES 2016/17			Jul-16
Performance measures in LTP/Annual Plan			
What are they:	Targets		Progress to date
Provide a "good enough" range of community and leisure assets at an appropriate proximity to centres of population	Progressive improvement in provision and maintenance of the Library service: A greater proportion (benchmark = 15%) of the sample believe that Council's service is getting better		
	Progressive improvement in provision and maintenance of the swimming pools: A greater proportion (benchmark = 17%) of the sample believe that Council's service is getting better		
	Progressive improvement in provision and maintenance of the sports fields and parks: A greater proportion (benchmark = 5%) of the sample believe that Council's service is getting better		
	Progressive improvement in provision and maintenance of public toilets: A greater proportion (benchmark = 19%) of the sample believe that Council's service is getting better		
	Progressive improvement in provision and maintenance of community buildings: A greater proportion (benchmark = 4%) of the sample believe that Council's service is getting better		
	Progressive improvement in provision and maintenance of community housing: A greater proportion (benchmark = 0%) of the sample believe that Council's service is getting better		
Number of users of libraries	An increase in use compared with the benchmark: During 2013/14, 124,801 people entered the libraries Bulls: 20,373 Marton: 49,967 Taihape: 56,461 Count adjusted to compensate for non-recording periods		Bulls 1559 Marton 5407 Taihape 4455
Number of users of pools	An increase in use compared with the benchmark For the 2014/15 season: 19,445 in Marton 10,099 in Taihape		
Requests for Service			
What are they:	Completed on time	Completed late	Overdue
Cemeteries			
Cemetery maintenance			
Council Housing/Property			
Maintenance (Council housing/property)	12	7	4
Graffiti/Vandalism			
Graffiti/Vandalism			
Halls	**1**		
Maintenance (halls)			
Street Cleaning			
Street litter bins/maintenance			
Parks and Reserves			
Maintenance (parks and reserves)			
Waterleaks - Parks only			
Public Toilets			
Cleaning (public toilets)			
Maintenance (public toilets)	11	1	1

COMMUNITY AND LEISURE ASSETS GROUP OF ACTIVITIES 2016/17

Jul-16

Major programmes of work outlined in the LTP/Annual Plan 2016/17

Parks and Open Spaces	Design/ Scoping	Tender/Contract docs	Under construction	Complete
Turf Regeneration in Parks	Centennial Park irrigation scheduled to be installed week of 15 August, followed by Turf renovation the following week.			
Tree Management in Parks				
Establish Wasp Control Programme				
Develop Skate Parks using the Parks Upgrade Programme Fund				
Community Buildings	**Design/ Scoping**	**Tender/Contract docs**	**Under construction**	**Complete**
Complete Multi-purpose Facility in Bulls - dispose of surplus sites and re-develop Library site	Draft preliminary estimate has been received for the new multi-purpose facility in Bulls. Presentation to Councillors and Stakeholders scheduled for 3 August. Public meeting scheduled for 8 August. The present Bulls Information Centre site is the only propertly that has no constraints affecting disposal of the site. Legal advice is being sought on other properties identified for disposal in Bulls.			
Re-Roof Marton Plunket Rooms				
Renovations to Exterior Roof/Internal Floors at Mangaweka, Ohingaiti and Wainui Halls				
Re-paint Marton Memorial Hall				
Demolish Conference Hall in Taihape				
Construct new Amenity Block on Taihape Memorial Park				
Re-paint Jubilee Pavilion at Marton Park				
Re-paint Hunterville Grandstand				
Replace Ablution Block Roof at Dudding Lake	Two quotes have been received.			
Swimming Pools	**Design/ Scoping**	**Tender/Contract docs**	**Under construction**	**Complete**
Fit Solar-Heating at Marton Swim Centre				
Chemical Shed at Marton Swim Centre	Quotes are being sourced.			
Filtration & Heating at Taihape Swim Centre	Peer review has been received. The additional work is presently being determined/priced e.g. would an upgrade of the power supply be required.			
Install Space-Heating at Taihape Swim Centre				
Community Housing	**Design/ Scoping**	**Tender/Contract docs**	**Under construction**	**Complete**
Community Housing Management and Upgrades	Two additional submissions were received for the management / ownership. Report will be provided to Council.			
Property	**Design/ Scoping**	**Tender/Contract docs**	**Under construction**	**Complete**
Purchase Cobbler/Davenport/Abraham & Williams Properties as site for Council's Administration and Library Services, and undertake initial Heritage and Development Concept	Steps are being taken to purchase the property.			

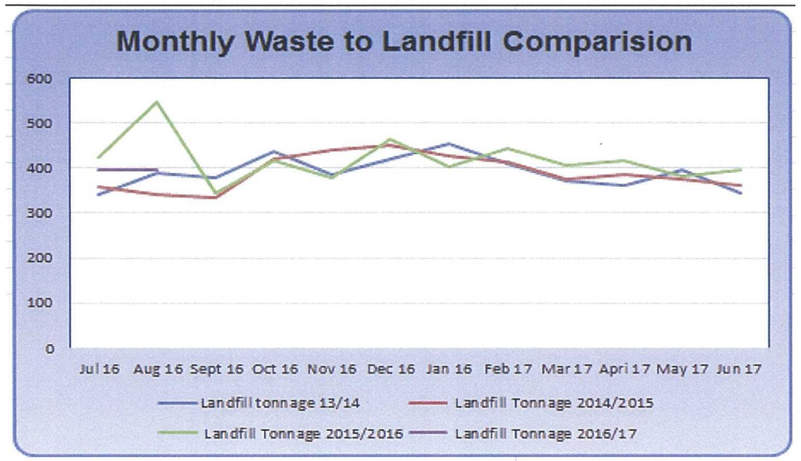
Other major programmes of work carried out during 2016/17

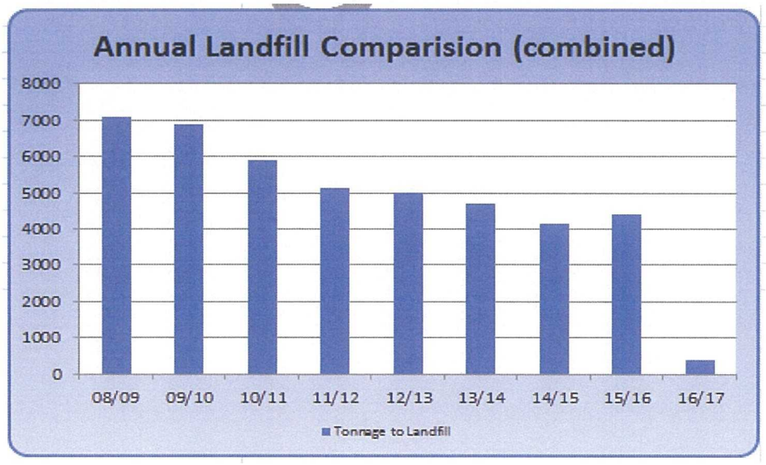
Projects	Design/ Scoping	Tender/Contract docs	Under construction	Complete
Contribute to Multi-Purpose Turf Facilitiy in Marton				
Mangaweka Camp Ground Ablution Block	Architect presently drawing up plans.			
Hunterville Cemetery Roadway	Stage I of the upgrade will be completed during summer of 2016/17.			

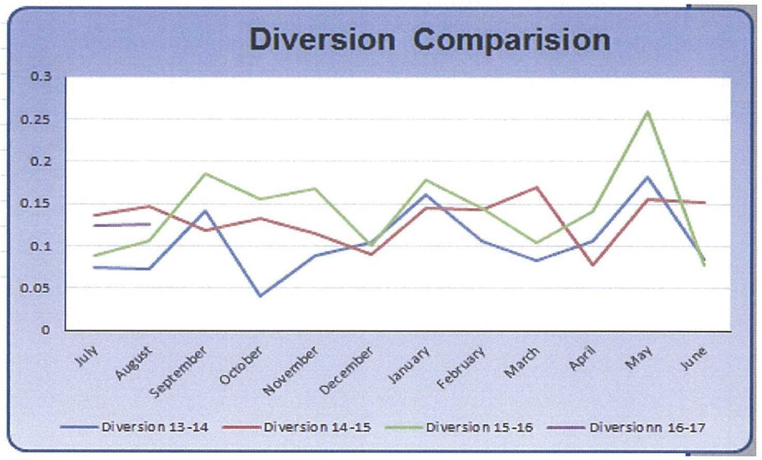
RUBBISH AND RECYCLING GROUP OF ACTIVITIES 2016/17

Jul-16

Performance measures in LTP/Annual Plan			
What are they:	Targets	Progress to date	Progress for the period
Waste to landfill	4,250 tonnes to landfill	396 Tonnes for year starting 1st July equating to 9% of target volume	
Waste diverted from landfill (tonnage and (percentage of total waste)	Percentage of waste diverted from landfill 14%	Rate for year starting 1st July 12.4% diversion	
Requests for Service			
What are they:	Completed on time	Completed late	Overdue
None for Solid waste	N/a	None	None







RUBBISH AND RECYCLING GROUP OF ACTIVITIES 2016/17			Jul-16
Major programmes of work outlined in the LTP/Annual Plan			
What are they:	Targets	Progress to date	Work planned for next three months
Waste management	Bulls Waste Transfer Station - trial recycle shop	No progress to date	Planned to purchase container
	Marton Waste Transfer Station - trial recycle shop	No progress to date	Planned to trial Bulls first, if successful will implement Marton
Waste minimisation	Waste Education NZ visits.	No reported visits for July	Not yet known. Acceptance of programme by schools is voluntary.
	Horizons Enviroschools programme.	No reported visits for July	Visit all schools who have embraced the Enviroschools programme.
Other projects			
What they are:	Targets:	Progress to Date	Work planned for next three months
Scope of review of the Waste Management and Minimisation Plan	Review of WMMP	No progress to date	No work planned for the next three months, review due in 2018.
Review of options for the continuing operation of the Marton Waste Transfer Station	Investigate the land value of site		Parks and Property Department to investigate this further.

Attachment 4

REPORT

SUBJECT:	**Bridge Maintenance Professional Services Contract**
TO:	RDC Assets and Infrastructure Committee
FROM:	John Jones
DATE:	5 August 2016
FILE:	6-RT-1-69

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1 Purpose of the Report

1.1 To advise Council of the procurement of professional services to manage Rangitikei District and Manawatu Council's local roads bridge assets.

2 Background

2.1 NZTA has recommended that Rangitikei and Manawatu District Councils develop a dedicated Structures Asset Management Plan and a program of works to enable the long term planning while remaining agile enough to respond to changing network demands.

2.2 Rangitikei and Manawatu District Councils maintain approximately 600 bridges /major culverts ranging in size from small cast *insitu* culverts to the 140m long Mangaweka Bridge over the Rangitikei River on Ruahine Road. Council also has a number of retaining walls, and stock underpasses. The development of a structures programme is critical.

2.3 The previous professional services contract expired on 30th June 2016. Until then professional services were procured to inspect bridges in accordance with The NZTA Bridges and Other Significant Highway Structures Inspection Policy (NZTA S6:2015). A forward works programme was prepared based on perceived need.

2.4 Previously asset management planning lacked front end direction and integration of other Roading activities. The focus had been on operations. An evidence based prioritised and optimised programme had not been produced.

2.5 Prioritisation is a method of putting proposals on a priority list indicating which are to be funded first.

2.6 Optimisation allocates resources to gain the most benefit or return possible in the given context. It focusses on evaluating what are considered to be the most

important aspects of asset management. These aspects relate to minimising total life-cycle costs while meeting community and broader social expectations.

2.7 Risks to the network are currently minimised by the individual strengths present in the delivery teams, particularly knowledge and understanding of the needs of the structures and general network maintenance. However Council does not have sufficient in house resources to produce an evidence based dedicated Structures Asset Management Plan and a program of works to enable the long term planning.

3 Contract Scope

3.1 The primary objective of the new contract is the management of the local roads bridge asset to the level of service and standards required by Council. The "bridge asset" comprises:

- All bridge structures and culverts (including multiple culverts) which directly support traffic with a total waterway greater than 3.4m^2 together with their adjacent embankment protection structures and bridge approach side protection
- All stock and pedestrian underpasses
- Roadway structures where public safety or critical network function is likely to be significantly affected in the event of failure, irrespective of ownership

4.2 The Professional services contract will comprise the following:

- Structural Inspections
    - General Bridge Inspections
    - Principal Bridge Inspections
    - Special Bridge Inspections
    - Other Structure Inspections
- Miscellaneous Technical Support (As Required)
- Capacity Assessments
- Overweight permitting
- HPMV permitting
- Risk/Criticality Assessments
- Bridge Specific Asset/Maintenance Management Plans
- Bridge & Structures Asset Information Management (RAMM)
- Forward Works Programming (Structural Maintenance, Strengthening, Replacement)
- Design (Structural Maintenance, Strengthening, Replacement)
- Resource Consent Applications
- Physical Works Procurement
- Physical Works Construction Surveillance and Quality Assurance
- Annual Bridge Posting/Restriction Information
- Financial Input for Annual Plan and RLTP
- Guardrail and Barrier Inspections and Design
- Bridge Signage Review and Design

- General Reporting
    - Meetings (Initial, 3 monthly and annual)
    - Reporting quarterly (every 3 months)
    - Bridge Inspection Report (submitted each year with inspection sheets)

4 Operational Implications

4.1 Following any significant weather event the professional services provider will be on hand to provide additional services. However, Council will reserve the right to also utilise other Consultants. This will be at the Council's discretion, but would likely be as a result of a large amount of required work not able to be resourced by the professional services provider. Payment for additional services will be agreed by Council on a case by case basis.

5 Procurement

5.1 The contract is for 2 years with a 3 year right of renewal subject to performance criteria

5.2 Tenders will be called through an open tender process via Tenderlink

5.3 Tenders will be evaluated in accordance with the Transport Agency's Price Quality Method Simple (PQM Simple). PQM simple is a formula-based evaluation. It distinguishes the difference in quality between tenderers by translating the non-price attribute grades to an SQP. The SQP is defined as 'the amount that the tendering authority is prepared to pay to secure a higher quality tender relative to the lowest quality tender'.

5.4 The tender evaluation weightings are 80% for non-price attributes and 20% for price.

5.5 Procurement Programme

- Call Tenders 10th August 2016
- Tenders Close 31st August 2016
- Contract Award 11th October
- Possession of site 11th November

6 Financial implications

6.1 The cost of the professional services is estimated to be $140,000 per annum for each District Council. This is made up of $100,000 for routine core activities and a Provisional Sum of $40,000 for additional engineering services. The costs will be contained within the current structures maintenance and renewals budget allocations.

6.2 Total value of contract (RDC and MDC) is estimated to be $240,000 per annum x 5 years = $1,200,000 with approximately 50% attributable to RDC.

7 Statutory Requirements

7.1 Council has statutory obligations under the Land Transport Management Act 2003 to maintain a roading network within the District. An effective roading network is also essential to ensuring economic and social wellbeing of the community through the provision of access and mobility for people, goods and services.

8 Consultation

8.1 Consultation is not required.

9 Cultural Considerations

9.1 There are no cultural considerations.

10 Conclusion

10.1 The professional services contract will produce a Structures Asset Management Plan that prioritises and optimises the 'best' bridge maintenance options for inclusion in the final works program.

11 Attachments

- There are no attachments

12 Recommendation

12.1 That the report 'Bridge Maintenance Professional Services Contract' to the Assets/Infrastructure Committee meeting on 11 August 2016 be received.

Attachment 5

Report

Subject: **Koitiata Camp Ground and adjacent Reserve - upgrading facilities**

To: Assets/Infrastructure Committee

From: Gaylene Prince, Community & Leisure Services Team Leader

Date: 5 August 2016

File: 6-CF-4-16

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1 Background

1.1 The Koitiata Residents Committee made a submission to the 2016/17 Annual Plan. Council determined that a report would be presented to the August meeting of the Assets/Infrastructure Committee.

1.2 The Koitiata Residents Committee submission (Appendix A) requested the following:

- Hot water be provided at the sink
- 'Town water' be provided at the sink, rather than bore water ('Town water' is presently trucked in, as required, to fill a 10,000 litre tank that supplies water to the coin operated showers)
- Removal of the small concrete tank collecting water from the roof, due to the deterioration of the tank stand
- Installation of two double power points for use by campers
- Internet access
- Removal of the open wood-fired BBQ on the reserve/replacement with a coin-operated gas BBQ with a covering roof structure.

1.3 Appendix B shows the location of the current BBQ, and the camp ground.

2 Water Supply

2.1 The approximate plumbing costs for the above first three bullet points is $1500. This cost can be covered by the operational budget.

2.2 With the additional use of the 'town water' supply, it is expected that there would be increased costs for cartage of additional water as required. This expenditure has not been budgeted for, and unlike with the coin-operated showers, it would not be recouped. It is likely that increased costs would be in the vicinity of $1600-$2000.

2.3 However such an upgrade not only improves the user experience but is a step in the right direction with regards to camp ground standards.

3 Power-points

3.1 An estimate had been sought for the installation of two double power points but had not been received at the time this report was prepared. It is envisaged that this expenditure can be covered by the operational budget.

4 Internet Access

4.1 The submission notes that "the community has its own broadband provider which is Inspire Net".

4.2 The Community & Leisure Services Team Leader has identified that Koitiata is one of Inspire Net's 'Inspire Free Wifi' hotspots located around the lower North Island.

4.3 Inspire Net advise that this service offers 1000 megabytes a month for each device at no cost to the user. It provides free access to both email and web browsing. If more data is required, users can obtain top-ups, online, with a credit or debit card.

4.4 If Council was to supply wifi, any plan would be in the vicinity of $100 per month.

4.5 It is suggested that the 'Inspire Free Wifi' be promoted at the camp ground.

5 BBQ

5.1 As noted in the submission, Koitiata is within three kilometres of the coast, where there is a total fire ban. The availability of a wood-fired BBQ on the council reserve contradicts this.

5.2 The Koitiata Residents Committee have requested that Council replace the well-used wood fired BBQ with a coin-operated gas BBQ. The Committee would be prepared to contribute by supplying the materials and labour to build a roof shelter structure over the BBQ.

5.3 Based on the pricing obtained for the Wilson Park proposal, costs for a built in gas BBQ, cabinet surround, coin mechanism, gas, and concrete pad would be approximately $23,000.

5.4 While funding has not been allocated for such a project, there is sufficient funds in the DISP Reserve account. The funds from the coin-operation would recoup the cost of the gas supply.

6 Conclusion

6.1 It is suggested that the water supply and electrical work and a new coin-operated gas BBQ be installed at Koitiata as per the Koitiata Residents Committee submission.

7 Recommendation

7.1 That the report 'Koitiata Campground and adjacent Reserve – upgrading facilities' be received.

7.2 That the water supply and electrical work at the Koitiata Campground be actioned, funded from the Operational Budget.

7.3 That the wood-fired BBQ at the adjacent Koitiata Reserve be replaced with a coin-operated gas BBQ, funded from the DISP Reserve account.

Gaylene Prince
Community & Leisure Services Team Leader

Appendix A

Rangitikei District Council - Council owned Property

2016/2017 Submission Re Koitiata Camp Ground

This little piece of paradise is really starting to be found by more and more people . As you can see by the copy of the visitor's book the overseas backpacker type traveler and the kiwi motorhome traveller are all big users .

The campground consists of 8 powered sites and a large area across the road for non powered sites.

The ammenities consist of an open air sink , two toilets , two showers operated by $2 coin , gas hot water for showers only. The sink only has cold bore water for use.

There is also a three burner gas barbecue donated by locals .

The water for the showers is trucked in from town water when required to a water storage tank on site.

All other water is underground bore water.

The $2 coins used to pay for the showers goes directly to Council for the cost of the water and bottled gas.

There is power to the site with only one power point which is used for the gas infinity. There are no other power points for use by campers for charging phones , laptops etc or for any other use such as cooking.

We the Koitiata Residents Committee would like to see the ammenities brought up to the 21st Century.

1) Hot water over the sink.

2) Cold town water over sink not bore water.

3) Two double hot points put in for charging phones , laptops and for campers general use.

The community has it's own Broadband provider which is Inspire Net. They have installed a tower on private land and this has been very successful for the last five years serving the locals well. There is no internet connenction at the campground for campers to access. This again is a must in this day and age. We would like to see this taken on board by Council with Inspire Net.

With regard to Health & Safety issues there is a small concrete water tank collecting water off the roof of the ammenities block sitting on a wooden stand. This stand is starting to rot away and the tank is starting to lean badly. This tank should be removed and the downpipes redirected into the tank that holds the town water.

As a health issue we have also supplied a copy of the water sample for the campground that the council have undertaken.

The approximate cost of removal of tank , shifting of downpipes and supplying hot and cold running water over the sink is $1,500 plus the installation of power points.

The council has an open wood fired barbecue at the playground area for people to use and yes it does get a lot of use in the summer months. The problem is that there is a total fire ban within 3km's of the coast so how does this comply with the rules? We would like to see the Council supply and install a gas operated stainless steel self cleaning barbecue as per attached.

The residents committee would like to work with council on this and provide and build the roof structure over the facility. We have no costing on this as yet

Regards
Keith Gray
Chairman

Appendix B

Koitiata Camp Ground & Reserve

Print Date: 4/08/2016
Print Time: 1:00 PM

Scale: 1:1046
Original Sheet Size A4

Projection: NZGD2000 / New Zealand Transverse Mercator 2000
Bounds: 1782254.7056075,5561925.41117404
1782539.1120395,5562082.27736756

Digital map data sourced from Land Information New Zealand. CROWN COPYRIGHT RESERVED
The information displayed in the GIS has been taken from Rangitikei District Council's databases and maps.
It is made available in good faith but its accuracy or completeness is not guaranteed.
All excavations near council assets to be undertaken with due care. Contractors will be liable for damages.
If the information is relied on in support of Resource Consent it should be verified by independent survey.

Attachment 6

REPORT

SUBJECT:	**Initial Seismic Assessment (ISA)) of Water Assets**
TO:	Assets and Infrastructure Committee
FROM:	Joanna Saywell, Utility Asset Manager
DATE:	1 August 2016
FILE:	6-WS-1-4

1 Initial Seismic Assessment

1.1 Kevin O'Connor and Associates were commissioned to inspect a number of Council's older utility assets to ensure that they would keep functioning after a seismic event.

1.2 Six main water assets were identified, four reservoirs and two others. All were found to be Earthquake Prone. The risk to life and property should they fail was deemed to be low, with the exception of the Bulls water tower.

1.3 The concrete reservoir in Bulls located on Trickers Road was considered to be in too poor condition to justify strengthening.

1.4 The water tower in Bulls was considered to pose a high risk if it failed with water in it. The consultants have been asked to consider the risk of failure if the water tower were to remain but without water in it and without the need to remain functioning as an essential service. This is still being assessed.

1.5 The executive summary from the structural report is attached for reference. The following table is extracted from the report.

Asset	Year of Construction	%NBS	Grade	NZSEE Classification	Strengthening Recommended	Estimated Cost	Consequences of Structural Failure	Risk to Life and Property
Bulls WSF – Trickers Road Concrete Reservoir	1965	5	E	Earthquake Prone	No*	*	High	Low
Bulls WSF – Taumaihi Street Concrete Water Tower	1957	15	E	Earthquake Prone	Yes	$300,000.00 to $400,000.00	High	High

Bulls WTP – Bridge Street Concrete Building and Filter	1964	15	E	Earthquake Prone	Yes	$100,000.00 to $200,000.00	High	Low
Marton WTP – Tutaenui Rd Concrete Clarifier	1971	20	D	Earthquake Prone	Yes	$200,000.00 to $300,000.00	High	Low
Mangaweka – Reservoir Rd Concrete Reservoir	Pre 1935	10	E	Earthquake Prone	Yes	$200,000.00 to $300,000.00	High	Low
Taihape – Ruru Rd Concrete Reservoir	1956	15	E	Earthquake Prone	Yes	$200,000.00 to $300,000.00	High	Low

2 Budgets

2.1 Council's Long Term Plan (LTP) for the 2015-18 years included budgets for investigation and renewal / replacement of the reservoir on Trickers Road with associated mains replacement and new pipework around the reservoir. The budget also allowed for formalising the access track and easements. No budget had been set aside for strengthening of the treatment building.

2.2 The new reservoir in Bulls should be designed to provide sufficient storage for the whole of Bulls so that the remaining timber reservoir could be refurbished at a later date.

2.3 The concrete clarifier in Marton requires strengthening. The initial estimates are still lower than full replacement so more detailed investigation is required. There is currently $300,000 budget available for seismic strengthening renewals in Marton pending a full structural assessment and options analysis.

2.4 The Mangaweka reservoir is old but of very thick concrete construction. It has had issues in the past with bird ingress. The cost to demolish and replace this reservoir may be higher than strengthening, so further works are underway to determine the most appropriate action. Money has been budgeted in the LTP for renewal of the reservoir ($620,000) pending a full structural assessment and options analysis.

2.5 The reservoir in Taihape is in poor condition. The roof structural members are corroded and the seismic assessment has determined that up to $300,000 of strengthening may be required in addition to roof repairs. The current budget for the Taihape water treatment plant renewals is only $300,000 pending a full structural assessment and options analysis. Therefore more investigation will be required before decisions can be made.

2.6 Detailed assessments have now been requested for all structures before confirming that they are to remain and be strengthened.

3 Recommendations

3.1 That the report 'Initial Seismic Assessment (ISA)) of Water Assets' be received.

Joanna Saywell
Utilities Asset Manager

Attachment 7

REPORT

SUBJECT:	**Consent Compliance – July 2016**
TO:	Assets/Infrastructure Committee
FROM:	Joanna Saywell - Utilities Asset Manager
DATE:	28 July 2016
FILE:	5-EX-3-2

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1 Introduction

1.1 This report is a summary of Rangitikei District Council's compliance with resource consent conditions from Horizons Regional Council, for the period indicated above. Information on compliance has been derived from our Water Outlook system, and where applicable, communications with compliance monitoring officers at Horizons.

1.2 The first full operational year of Water Outlook was competed on 1st July 2016. The system continues to achieve the purpose of its implementation in providing good visibility about compliance with consents for both RDC and Horizons. Horizons staff have met with RDC in July to confirm how they can use the system in their formal compliance reporting for the 2015/2016 financial year.

1.3 Note that in 2016 compliance reports have been forwarded to Greg Bevin, Horizons Regulatory Manager, to keep Horizons informed of progress towards full compliance. Greg Bevin has requested specific progress reporting on agreed compliance actions for Hunterville and Taihape Wastewater Treatment Plants. The specific detail requested is included as an appendix to this consent compliance report.

2 Water Supply

2.1 Table 1 shows the compliance of each water supply scheme against consent conditions. Only those schemes for which Rangitikei District Council is the consent holder have been shown.

Table 1: Consent Compliance – Water Supply

Scheme	Compliance July 2016	Comments	Actions
Marton	Water abstraction consents. Compliant	-	-
	WTP discharge consent. Non-compliant	The volume of the combined filter backwash & alum sludge discharge to the settling ponds exceeded consent limits in July.	The consent to discharge from the WTP expires in November 2016. Process engineering, water quality, ecology and planning consultants have been engaged to complete a long term residuals management strategy for the WTP discharge and prepare a consent renewal application. Consultant feedback indicates that the renewal application will seek an optimisation of the activity authorised by the existing consent, rather than a change in activity.
Taihape	Compliant	-	Horizons have accepted proposal to discharge excess water take back to Hautapu River. This currently bypasses 17-18 L/s back into the river when required so that flow extraction limits are not exceeded.
Bulls	Compliant	-	
Mangaweka	Compliant	-	
Ratana	Not assessed	Abstraction rate monitoring not in place at existing bore. Consent to use new bore for production has been acquired.	Design and construction of treatment plant underway.
Erewhon Rural	Compliant	-	Required summer weir gauging has been completed. Documentation has been forwarded to the Horizons Compliance Officier.
Hunterville Rural	Compliant	-	
Omatane Rural	Compliant	-	

3 Wastewater

3.1 Compliance against consents is shown per wastewater treatment plant (WWTP) in the table below.

Table 2: Consent Compliance – Wastewater Treatment Plants

Scheme	Compliance July 2016	Comments	Actions
Marton	Compliant		Two rounds of metal sampling in the Tutaenui Stream were undertaken in June with a third in July.
Taihape	Non-compliant	Non-compliant for flow on four days – three of which occurred when low flow trigger limit in the Hautapu River applied due to issues with Inflow & Infiltration (I and I). Note that flow compliance has been achieved every other day throughout the month of July.	A compliance pathway for this treatment plant has been agreed with Horizons Regulatory Manager. Reporting requirements from this agreement are included as appendix to this report.
Bulls	Not Assessed	A consent renewal application has been lodged with Horizons, and responses have been supplied to all Horizons requests for further information	RDC is awaiting a response from Horizons on their intended approach and timeframes for processing this consent.
Mangaweka	Compliant	No outflow data registered in Water Outlook for the last two weeks of July 2016 however all data received indicates that compliance for flow was met.	

Scheme	Compliance July 2016	Comments	Actions
Hunterville	Non-compliant	Regular exceedances of the maximum daily discharge volume have been recorded in July 2016. However despite the above, ongoing RDC ecological monitoring upstream and downstream of the Wastewater treatment Plant continues to demonstrate no adverse effects. The consent includes the provision for Horizons to approve a reduction in ecological sampling frequency when no adverse effects are identified over a 2 year period. RDC have requested approval from Horizons to exercise this provision. To date no response has been received.	
Ratana	Compliant	Compliant for July 2016 based on final quarterly sample taken in June 2016. End of period statistics show that numerical standards that apply to five RDC effluent sampling parameters have been achieved. Note that this is subject to change when Horizons complete the annual assessment which incorporates their independent sampling data.	In April 2016 Horizons staff informally advised that recent monitoring of Lake Waipu showed it to be in a poor state. Accordingly, they advised they will be looking for RDC to remove the Ratana discharge from the lake when Council applies to renew the current consent which expires in 2018. No formal correspondence has been received from Horizons on this matter. The Operations Team are planning a meeting planned with Horizon's Consents Monitoring Officer on site to discuss the water quality at the outfall to the lake.

Scheme	Compliance July 2016	Comments	Actions
Koitiata	Non-compliant	No irrigation field in place.	Koitiata Wastewater Reference Group has been formed and meetings held with ultimate aim of deciding on a sustainable wastewater solution for the community. Few issues raised by residents with respect to their septic tank systems. A decision on the future direction of wastewater disposal will be informed by the shallow bore water tests. The testing regime is continuing as scheduled.

4 Recommendation

4.1 That the report 'Consent compliance – July 2016' be received.

Joanna Saywell
Utilities Asset Manager

Appendix 1

Appendix – Hunterville and Taihape WWTP Agreed Compliance Pathway Progress Reporting

Purpose

This appendix reports RDC's progress against the compliance pathway agreed with Horizons Regional Council for Hunterville and Taihape Wastewater Treatment Plants, and as set out in the letter delivered by Ross McNeil to Michael McCartney at the Horizons Environment Committee Meeting of 11 May 2016.

It has been agreed that monthly progress reports will continue to be provided to Greg Bevin, Horizons Regulatory Manager.

Progress for Reporting Period 1 July 2016 to 1 August 2016

Progress for the reporting period is set out in Table 3.

Table 3: Progress for Reporting Period 1 July 2016 to 1 August 2016

Horizons Requested Progress Reporting Categories	Hunterville WWTP	Taihape WWTP
Actions completed in reporting period	Operation of the clarifier continues. Ongoing monitoring and collection of data.	Clarifier has been fabricated in Auckland and is being prepared for shipping.
Planned Actions for the next reporting period	Ongoing monitoring and collection of data to continue as planned.	It was reported in May that the foundations were to be constructed early/mid June. As of 1 August 2016, a contract has been let for the construction of the foundations. Construction started on 1st August.
Issues confronted/identified	No issues to report at the present time.	A new project manager has been appointed for this project.
Timeframes for resolving issues confronted/identified	No issues to report at the present time.	The agreement with Horizons was for the clarifier to be operating by the end of June to allow intensive environmental monitoring to occur until January 2017. The delays to the foundations mean that the clarifier will not be operating until September 2016. An assessment of the overall impact on the programme will be determined, and reported to Horizons, once the clarifier is operational.

Attachment 8

REPORT

SUBJECT:	**Marton Wastewater Treatment Plant as at 4 August 2016**
TO:	Assets and Infrastructure Committee
FROM:	Joanna Saywell, Utility Asset Manager
DATE:	4 August 2016
FILE:	6-WW-1-4

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1 Current Status

1.1 Consent Compliance

Compliance of the WWTP is back on track this past month with ammonia levels downstream well below consent limits. This is the second month since December with reasonable stream flows.

1.2 Bonny Glen – Progress with Pre-treatment

Last month council officers visited Bonny Glen and inspected the pre-treatment system. Midwest Disposals Ltd (Midwest) are in the process of duplicating the current system so that pre-treatment can be continuous.

The process involves the use of a "Geobag" that retains large particles while letting cleaned water through. The "Geobags" are estimated to take two months to fill so the system will need to transfer to the second bag in August. While the first bag is drying a second bag will start being filled. Hence the need for a duplicate system.

A Leachate Management Plan has been drafted that describes the processes that will be in place, and the timescales involved. (See attached document.) This has been developed with Midwest and has been sent to Horizons for comments.

1.3 Marton WWTP

In July the access track into the site and around the anaerobic pond to the inlet was re-graded. MWDL have installed three 30m^3 tanks on site for leachate disposal and are in the process of connecting them up to the inlet via a pump and flow meter.

They will be able to dispose of leachate directly into the plant under the control of the plant operators. This will enable a small, almost continuous flow to be discharged, removing the risks associated with shock loading.

The sucker truck drop off beside the inlet is still under design with minor improvements to the site entrance and turning area near the inlet screen.

1.4 Metal Testing

Last year our consultants, Aquanet Consulting Ltd, investigated the water quality of discharge from the MWWTP to the Tutaenui Stream with specific regard to possible contaminants potentially present in the leachate. They identified detectable levels of some common metals but they did not seem to give rise to more than low risk of toxic effects on aquatic life.

Further testing was undertaken of stream flows over the last two months and these are now presented in the attached report by Aquanet Consulting Ltd. Essentially these further tests do not change the conclusion of the earlier report. There were no detectable levels of any metal contaminants above ANZECC guidelines.

2 Programme

The current programme is:

Proposed works	**Responsibility (Cost)**	**Budget**	**Current Indicative Completion date**
Work at Bonny Glen Landfill			
Pre-treatment to remove colour and suspended solids	Midwest Disposals	N/A	Completed
Pre-treatment to reduce nitrogen to Trade Waste limits	Midwest Disposals	N/A	MWD are now suggesting end 2017
Prepare draft management plan covering the operational arrangements for the ongoing acceptance of pre-treated leachate at the Marton WWTP[1]	Midwest Disposals/RDC	N/A	Drafted for comment 30 July 2016.
Work at Marton WWTP			
Tanker disposal and turning facility	RDC	$160,000	November 2016
Installation of onsite tanks for septic waste (Midwest to provide	RDC	$60,000	August 2016

[1] As resolved and agreed at Council meeting 30 June 2016

and pay for additional storage tanks for leachate)[2]			
Inlet works	RDC	$100,000	November 2016
Improved aeration	RDC	$100,000	October 2016
De-sludging of the existing anaerobic pond	RDC	$300,000	Preferably after all landfill treatment in place or after landfill no longer discharges to plant
Up-grade existing or addition of another anaerobic pond - Design - Specification, contract - Construction	RDC	$1,000,000	Subject to successful pre-treatment of Bonny Glen leachate (or its removal) and after application for consent renewal. Final works subject to new consent application
Flow monitoring and control systems to tie in with new works	RDC	$150,000	
Final filtration systems	RDC	$1,500,000	
Application for a new consent lodged	RDC	$200,000	July 2018 (Current consent expires 31 March 2019)
Consent hearing etc.	RDC	$300,000	September 2018

3 Recommendations

3.1 That the report 'Marton Wastewater Treatment Plant as at 4 August 2016' be received.

Joanna Saywell
Utilities Asset Manager

[2] These should be in place before the A and I Committee meeting on 11th August 2016

Appendix 1

LEACHATE MANAGEMENT PLAN

Preamble

This Leachate Management Plan is for the continued acceptance of pre-treated leachate from Bonnie Glen landfill at Marton wastewater treatment plant by Rangitikei District Council

A Heads of Agreement has been drawn up between Rangitikei District Council and Midwest Disposals Ltd ("Midwest").

The object of the heads of agreement is to facilitate RDC's ongoing management and operation of the Marton Wastewater Treatment Plant ("MWWTP") in accordance with the resource consents issued by Horizons Regional Council ("Horizons"), whilst continuing to accept suitably pre-treated Bonny Glen landfill leachate at the MWWTP.

Beginning in November 2015 Midwest initiated a number of steps to reduce the impact of leachate disposal to the MWWTP:

1) Over the period; December 2015 to May 2016, Midwest has reduced the amount of leachate disposed of to the MWWTP by 70%. It had previously been identified that the summer months were the most challenging period for the MWWTP to maintain compliance due to low or non-existent in-stream flows.
2) During this same period Midwest made further investment at Bonny Glen to install leachate pre-treatment facilities on site. This flocculent dosing process, using Geobags, has reduced suspended solids by 90%, significantly reduced colour and odour, reduced ammonia by 15 – 30%, and COD by 20 – 30%.

Midwest have also built a pond to contain treated leachate prior to transportation to MWWTP. Midwest have also changed their method of operating so that the treated leachate is transported to Marton at a regular daily rate rather than at random times to suit landfill operations. Over January 2016, Midwest were able to cease leachate transportation altogether with the result that the Marton plant was compliant for most of the time when there was little flow in the Tutaenui Stream.

Programme of Works

This Management Plan sets out the work needed to achieve full removal of the leachate from the Marton wastewater treatment plant and the processes to be put in place to optimise the treatment processes at the MWWTP so that the effect of the leachate on plant compliance with the resource consent is minimised.

1. Work to be completed in July/August 2016:
   1.1. Grading of access track from the entrance to the plant around the anaerobic pond to the inlet chamber and screen area.
   1.2. Clearance of soil beside fence to create a base for tanks to be installed.
   1.3. Installation of three 30m^3 tanks for leachate storage with necessary pipework, valves, flow meter and pumping equipment to enable a controlled discharge to the top of the inlet chamber.

Note: The three tanks and all associated pipework and pumping equipment will be supplied and installed by Midwest Disposals Ltd and removed by them when they no longer need to dispose of leachate at the MWWTP. Any fuel for pumps will be supplied and topped up by Mid-West Disposals Ltd when delivering pre-treated leachate to the plant.

2. Work at MWWTP to the end of December 2016:

2.1. Design and installation of a drop off point for septic tank waste with associated grit trap and flow meter.
2.2. Minor improvements to road entrance to accommodate the increase in truck movements for delivery of leachate and septic waste.
2.3. Widening of access road and relocation of fence as necessary.

3. Midwest Disposals Ltd to end December 2016:
   3.1. Research and inspection of alternative treatment processes including a visit to Europe by four representatives (August 2016)
   3.2. Confirmation of chosen treatment and commissioning of design (October 2016)
   3.3. Duplication of Polymer / Geobag treatment system or installation of suitable alternative pre-treatment system to maintain pre-treatment of leachate as outlined in Heads of Agreement (including replacement of Geobags and polymer as necessary) to ensure total quality of ammonia and COD sent to the plant in any day does not exceed the limits below.
   3.4. Installation of two new tanks at the discharge of the Geobag system so that only pre-treated leachate is tankered to the MWWTP.
   3.5. Continue to manage landfill operations in accordance with new consent to minimise leachate production.

4. Midwest Disposals Ltd to end September 2017:
   4.1. Proceed with construction and installation of full leachate treatment facility
   4.2. Maintain pre-treatment system for all leachate that leaves the landfill

5. Midwest Disposals Ltd to end December 2017:
   5.1. Complete commissioning of full leachate treatment facility
   5.2. Obtain resource consents as necessary to enable disposal of treated leachate to stormwater or land
   5.3. Cease transportation of leachate to MWWTP.
   5.4. Remove leachate tanks and pump from MWWTP.

Daily Volume of Treated Leachate

The leachate produced by the landfill varies with the infiltration of rainfall, and as such a greater proportion is generated over winter. In total it is estimated, based on previous years' experience, that there will be approximately 12,500 m3 of leachate produced by the landfill annually.

The average daily volume of leachate produced by the landfill is therefore estimated to be 35m^3 over the full year

The daily volume of treated leachate accepted at the MWWTP shall not exceed 42m^3/day (3 tanker loads) when there is no-flow in the Tutaenui Stream and the total rainfall in the previous 40 days is less than 30mm.

The daily volume of treated leachate accepted at the MWWTP shall not exceed 70m^3 (5 tanker loads) except after a period of heavy rain (see below).

The daily volume of treated leachate accepted at the MWWTP shall not exceed 110 m^3 (three times average and equal to 8 tanker loads) in times of heavy rain (more than 100mm over the preceding 30 days).

LEACHATE MANAGEMENT PLAN

Pre-treated Leachate Quality

The total weight of ammoniacal nitrogen deposited at the MWWTP shall not exceed 150kg/day (volume of flow times concentration).

The total weight of COD deposited at the MWWTP shall not exceed 550kg/day (volume of flow times concentration).

Monitoring and Information Sharing

A flow meter shall be installed on the outlet from the tanks. Flow data shall be compared with certified weighbridge readings provided by Midwest on a monthly basis.

The quality of pre-treated effluent shall be checked weekly by Midwest for Ammoniacal nitrogen, suspended solids and COD. These results shall be supplied to RDC on a monthly basis. RDC may take random samples of the pre-treated leachate for verification.

1. RDC will:
   1.1. Monitor stream flows and advise Midwest Disposals Ltd when there is no flow in the stream.
   1.2. Manage daily leachate flow into plant as necessary to suit plant performance and stream flows.
   1.3. Advise Midwest of any issues, particularly low stream levels in summer or high colour or high ammonia readings in winter
   1.4. Take samples of plant influent to inform design of possible plant improvements required to meet future consent conditions and optimise plant settings (previously the influent was highly variable as it was influenced by the timing of leachate loading). Note that flows from the leachate tanks may be temporarily paused to allow the taking of samples of influent.

2. Midwest Disposals Ltd will:
   2.1. Retain leachate at the landfill during long dry spells.
   2.2. Store leachate on site over January (if it is a low rainfall month) so that there is minimal flow to MWWTP when there is low flow in the stream.
   2.3. Gradually increase treated leachate daily flows to MWWTP in February and subsequent months.
   2.4. If advised of high colour in the treated leachate by RDC, increase polymer dosing and/or replace Geobag or use alternative method of colour removal
   2.5. If advised of high ammonia in the treated leachate, or in the discharge from the MWWTP, by RDC, initiate or increase aeration of treated leachate prior to transportation, or use alternative method of ammonia removal.

Disposal of Pre-Treated Leachate at MWWTP

Disposal of pre-treated leachate at the MWWTP shall be via the three $30m^3$ tanks located near the inlet screen (once installed). A key to the gates shall be provided to the tanker driver following a site safety induction. Any new drivers will need to complete a site induction when attending site for the first time.

Drivers will be responsible for maintaining any pumps and level floats within the tanks. Bunds shall be in place so that there is no risk that spills from fuel containers can seep into the surrounding soils or treatment ponds.

If the tanks become completely full at time of a disposal visit the tanker driver shall either wait until there is sufficient volume discharged from the tanks to enable him to empty his tanker or shall leave

site and not return with a full tank for a minimum of two hours. Note that if the tanks are completely full and there is no problem with the pump, it is an indication that more than 110m^3 has been deposited at the plant and therefore there should be no more deliveries until the following day.

Hours of Operation

Drivers shall be responsible for site security if they attend site outside normal operating hours.

Drivers on site are to be aware of the constricted nature of the access road and the proximity of the anaerobic pond. It should be noted that there is minimal lighting at the inlet screens and therefore deliveries are limited to daylight hours.

Similarly, there is a house located near the access road and therefore there shall be no deliveries before 7.00 am Monday to Friday, or before 7.30 am on weekends, or after 7.30 pm on any day. (RDC reserve the right to limit these hours further if necessary).

Appendix 2

Marton Wastewater Treatment Plant Discharge to the Tutaenui Stream: Additional Monitoring, 2016

July 2016

Report Prepared for Rangitikei District Council

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Marton Wastewater Treatment Plant Discharge to the Tutaenui Stream: Additional Monitoring, 2016

18 July 2016

Report prepared for Rangitikei District Council by:

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Status	Final	

This report has been prepared for Rangitikei District Council by Aquanet Consulting Limited. No liability is accepted by this company or any employee or sub-consultant of this company with respect of its use by any other parties.

EXECUTIVE SUMMARY

1. Rangitikei District Council owns and operates the Marton Wastewater Treatment Plant (WWTP) which provides treatment for sewage from the Marton Township and the immediate surrounding areas.

2. Resource Consent N 7312 allows for the discharge of treated sewage waste from the Marton WWTP to the Tutaenui Stream. It was granted in April 1998 subject to a suite of conditions.

3. Since 2006 the Marton WWTP has received leachate from the Bonny Glen Landfill into the wastewater reticulation system a few kilometres upstream of the WWTP. In mid-2015, concerns were raised about the Bonny Glenn leachate inputs into the Marton WWTP and what impacts it may have on the quality of the discharged treated effluent from the WWTP and on the receiving environment, the Tutaenui Stream.

4. Following a meeting between representatives of Horizons Regional Council (Horizons) and Rangitikei District Council (RDC), a water quality sampling programme, additional to resource consent requirements, was agreed between Horizons and RDC's experts, to enable a first stage risk-based assessment of the Marton WWTP discharge and its potential for effects on the Tutaenui Stream with specific regards to the contaminants potentially present in the Bonny Glen leachate. This monitoring programme was implemented by RDC in July to September 2015.

5. Analysis of the 2015 monitoring results indicated that the discharge from the Marton WWTP contained detectable concentrations of common metals, but that they did not seem to give rise to more than low risks of toxic effects on aquatic life in the Tutaenui Stream downstream of the discharge, apart from possibly chromium. These results are summarised in a separate report (Aquanet, 2015).

6. In order to better understand the degree of risk of effects on aquatic life due to chromium concentrations, further monitoring (a second stage risk-based assessment) was undertaken, which included analyses of the concentrations of trivalent and hexavalent chromium in the Tutaenui Stream upstream and downstream of the Marton WWTP as well as within the effluent itself.

7. Samples of the effluent and Tutaenui Stream, upstream and 500m downstream of the Marton WWTP discharge point, were collected on a fortnightly basis over three sampling rounds on the 8th June, 20th June and the 4th July 2016 by RDC staff and analysed for total trace metals (effluent samples) and dissolved trace metals (effluent & instream samples).

8. Consistent with previous monitoring of metals undertaken in 2015, aluminium, arsenic, chromium, copper, lead, nickel and zinc were detected in the samples of the effluent, while total cadmium was below detection limit on each sampling occasion.

9. Instream concentrations of dissolved arsenic, cadmium, lead, nickel and zinc were all below the ANZECC 95% protection level for freshwater upstream and 500m downstream of the Marton WWTP, indicating that the risk of toxic effect from these metals is low in the Tutaenui Stream. These results are consistent with previous sampling carried out in 2015.

10. Dissolved aluminium concentrations were similar between upstream and downstream of the WWTP, with concentrations below the ANZECC guideline of 0.055 g/m^3 for the 95% protection level for freshwater in round one of monitoring and above the guideline in round two and three. With similar concentrations between sites and lower concentrations of aluminium in the effluent than in the Tutaenui Stream, results indicate that the discharge from the Marton WWTP was not influencing instream concentrations over the three sampling rounds. Instream samples were not analysed for aluminium during the previous monitoring carried out in 2015.

11. Dissolved copper concentrations at both sites upstream and downstream of the discharge were above the ANZECC guideline of 0.0014 g/m^3 for the 95% protection level for freshwater, consistent with 2015 monitoring results. There was a relatively minor average decrease in copper concentration between upstream and downstream of the discharge (5.4%). This decrease is within the laboratory analytical accuracy and probably not material, indicating that the risk of effects from copper would be very similar upstream and downstream of the discharge. This result is consistent to previous sampling carried out in 2015 where a relatively minor (<10%) difference was found between sites.

12. Dissolved chromium concentrations significantly increased downstream of the Marton WWTP discharge, exceeding the ANZECC guideline of 0.001 g/m^3 for hexavalent chromium (95% protection level). The increase in chromium concentrations between upstream and downstream sites correlates with elevated chromium concentrations in the discharge, indicating that the discharge is the likely source of the increase in chromium concentrations in this stretch of the Tutaenui stream. These results are consistent to previous sampling carried out in 2015.

13. Chemical speciation of the chromium was undertaken in order to determine whether hexavalent chromium (CrVI), the form of Chromium most toxic to aquatic organisms, was present in the effluent and receiving environment. Laboratory results showed that hexavalent chromium was <u>not</u> detected in the three rounds of sampling in the effluent or either of the instream sites.

14. Overall, these results indicate that the discharge from the Marton WWTP contains detectable concentrations of common metals, but that these don't seem to give rise to more than low risks of toxic effects on aquatic life in the Tutaenui Stream downstream of the discharge.

CONTENTS

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1. Introduction

1.1. Background

The Rangitikei District Council (RDC) owns and operates the Marton WWTP which provides treatment for sewage from the Marton Township and the immediate surrounding settlements.

The treatment plant is comprised of three ponds, the first of which receives the raw wastewater and pre-treats it anaerobically. It is approximately 3.3 metres deep and is presently covered with reed beds. In the second pond, a total of 4 aerators are used to help circulate the waste and oxygenate the water for treatment and to mitigate odour problems. The third pond, which was designed to reduce bacterial populations and promote nitrification, holds the effluent before it enters four USF contra-shear sand filters. It is then discharged into a drain which enters the Tutaenui Stream.

Resource Consent N. 7312 allows for the discharge of treated sewage waste from the Marton WWTP to the Tutaenui Stream and was granted in April 1998 subject to a suite of conditions.

Since 2006 leachate from the Bonny Glen Landfill has been discharged into the Marton wastewater reticulation system a few kilometres upstream of the Marton WWTP. Based on information provided by RDC, it is our understanding that an informal agreement for this discharge existed between the former RDC Waste Manager and the Bonny Glen Landfill operators, however to date, no formal Trade Waste Consent exists for the Marton WWTP to accept this discharge.

Resource Consent conditions for the discharge require in-stream aquatic monitoring to be undertaken for macroinvertebrates and periphyton every three years. An additional monitoring programme was set up in 2015 to consider the potential effects of the input of leachate discharge from the Bonny Glen Landfill on concentrations of various organic and inorganic (metals) contaminant in the discharge and the Tutaenui Stream. The first stage of this monitoring programme was implemented by RDC in July to September 2015.

1.2. Aim & Scope

As mentioned in the previous section, a monitoring programme, additional to Consent requirements, was set up and undertaken in 2015 as a first stage risk-based assessment of the Marton discharge and its potential effects on the Tutaenui Stream with specific regards to the contaminants potentially present in the Bonny Glen leachate. This monitoring started in early July 2015 and was undertaken for three months. Analysis of laboratory results indicated that the discharge from the Marton WWTP contained detectable concentrations of common metals, but that they did not seem to give rise to more than low risks of toxic effects on aquatic life in the Tutaenui Stream downstream of the discharge, apart from possibly chromium. In order to better understand the degree of risk of effects on aquatic life due to chromium concentrations, further monitoring which included analyses of the concentrations of trivalent and hexavalent chromium in the Tutaenui Stream upstream and downstream of the Marton WWTP as well as within the effluent itself was proposed and implemented. It included:

- Water quality sampling in the Tutaenui Stream upstream and 500m downstream of the discharge. Monitoring was to be carried out over three rounds under stable flow conditions. Samples to be analysed for trace dissolved metals and hexavalent/trivalent chromium (Table 1).

- Effluent quality sampling at the same time as the above in-stream sampling. Samples to be analysed for trace total metals, dissolved metals and hexavalent/trivalent chromium (Table 1).

This report presents the findings of the proposed monitoring, undertaken between June and July 2016.

Table 1: Parameters and detection limits required for the proposed monitoring in the Tutaenui Stream.

Site	Parameter	Units	Detection Limits	
			Effluent	Instream
Effluent & Instream	Dissolved Aluminium	g/m³	0.003	0.003
	Dissolved Arsenic	g/m³	0.001	0.001
	Dissolved Cadmium	g/m³	0.00005	0.00005
	Dissolved Chromium	g/m³	0.0005	0.0005
	Dissolved Copper	g/m³	0.0005	0.0005
	Dissolved Lead	g/m³	0.0001	0.0001
	Dissolved Nickel	g/m³	0.0005	0.0005
	Dissolved Zinc	g/m³	0.001	0.001
Effluent	Total Aluminium	g/m³	0.0032	-
	Total Arsenic	g/m³	0.0011	-
	Total Cadmium	g/m³	0.000053	-
	Total Chromium	g/m³	0.00053	-
	Total Copper	g/m³	0.00053	-
	Total Lead	g/m³	0.00011	-
	Total Nickel	g/m³	0.00053	-
	Total Zinc	g/m³	0.0011	-
	Chemical Speciation			
Effluent & Instream	Dissolved Chromium (III)	g/m³	0.001	0.001
	Total Chromium (III)	g/m³	0.001	-
	Hexavalent Chromium	g/m³	0.01	0.001

2. Methods

2.1. Sites monitored

Samples were collected by RDC staff from the Marton WWTP effluent and from the two locations in the Tutaenui Stream; upstream and 500m downstream of the discharge from the Marton WWTP. Coordinates for the sites are listed below in Table 2 and their positions shown in Figure 1. Sites sampled are shown in Plates 1 and 2.

Table 2: Sites on the Tutaenui Stream sampled for metals in 2016.

Location	Easting	Northing
Upstream	1803462	5557769
500m Downstream	1803743	5557455

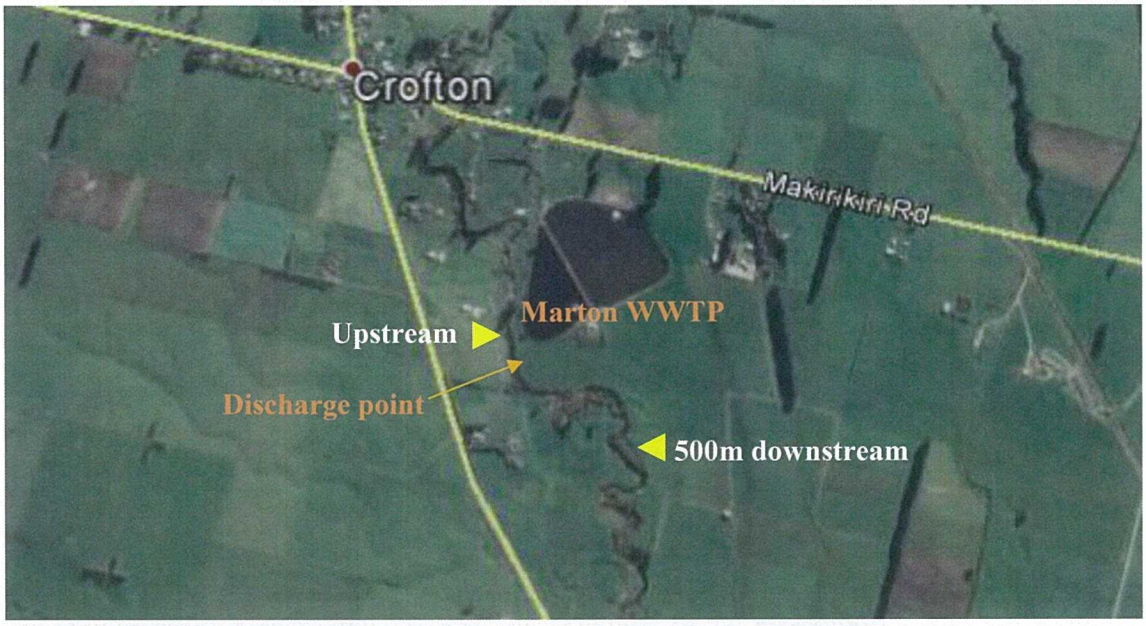

Figure 1: Location of sites sampled in 2016 in relation to the Marton WWTP discharge point.

Plate 1: Tutaenui Stream upstream of the Marton wastewater discharge (Photo taken 31st July 2015).

Plate 2: Tutaenui Stream 500m downstream of the Marton wastewater discharge (Photo taken 31st July 2015).

2.2. Effluent Monitoring

Samples of the Marton Wastewater Treatment Plant effluent were collected by Rangitikei District Council Staff on the same days as instream samples and sent to Hills Laboratories in Hamilton to be analysed for the parameters listed in Table 11.

2.3. Instream Water Quality Monitoring

Instream water quality samples were also collected by Rangitikei District Council Staff from the Tutaenui Stream upstream and 500m downstream of the Marton WWTP discharge point. Sampling occurred on days when the Tutaenui Stream was at a stable flow and approved by Horizons' Compliance Officer. All instream samples were sent to Hills Laboratory, Hamilton to be analysed for the parameters outlined in Table 1.

3. Results

3.1. Effluent Quality

Samples of the Marton WWTP final effluent (i.e. prior to discharge to the Tutaenui Stream) were collected by Rangitikei District Council (RDC) staff over three rounds of sampling on the 8th June, 20th June and the 4th July, 2016. Samples were sent to Hills Laboratories for total and dissolved trace metal analysis and chemical speciation of chromium.

Results are presented in Table 3, Table 4 and **Figure 2** to Figure 5, below.

Table 3: Chemical speciation of Chromium in Marton WWTP effluent samples, 2016.

		Dissolved Chromium (III) g/m³	Total Chromium (III) g/m³	Hexavalent Chromium g/m³
Round 1	8/06/2016	0.025	0.026	< 0.010
Round 2	20/06/2016	0.027	0.028	< 0.010
Round 3	4/07/2016	0.03	0.034	< 0.010
n		3	3	3
Average		0.027	0.029	0.005
Median		0.027	0.028	0.005
Minimum		0.025	0.026	0.005
Maximum		0.030	0.034	0.005
Stdev		0.003	0.004	0.000

Table 4: Trace metal concentrations in the Marton WWTP effluent, 2016.

		Total Aluminium g/m³	Total Arsenic g/m³	Total Cadmium g/m³	Total Chromium g/m³	Total Copper g/m³	Total Lead g/m³	Total Nickel g/m³	Total Zinc g/m³
Round 1	8/06/2016	0.054	0.0087	< 0.000053	0.026	0.0039	0.00039	0.00194	0.0191
Round 2	20/06/2016	0.071	0.0093	< 0.000053	0.028	0.0042	0.00041	0.0022	0.0173
Round 3	4/07/2016	0.154	0.0122	< 0.000053	0.034	0.0051	0.00072	0.0025	0.022
n		3	3	3	3	3	3	3	3
Average		0.093	0.010	0.00003	0.029	0.0044	0.0005	0.0022	0.019
Median		0.071	0.009	0.00003	0.028	0.0042	0.0004	0.0022	0.019
Minimum		0.054	0.009	0.00003	0.026	0.0039	0.0004	0.0019	0.017
Maximum		0.154	0.012	0.00003	0.034	0.0051	0.0007	0.0025	0.022
Stdev		0.054	0.002	0	0.004	0.0006	0.0002	0.0003	0.002

		Dissolved Aluminium g/m³	Dissolved Arsenic g/m³	Dissolved Cadmium g/m³	Dissolved Chromium g/m³	Dissolved Copper g/m³	Dissolved Lead g/m³	Dissolved Nickel g/m³	Dissolved Zinc g/m³
Round 1	8/06/2016	0.031	0.0084	< 0.00005	0.025	0.0021	0.0003	0.0016	0.0101
Round 2	20/06/2016	0.036	0.008	< 0.00005	0.027	0.002	0.0003	0.0017	0.0096
Round 3	4/07/2016	0.051	0.0126	< 0.00005	0.03	0.0022	0.00042	0.0019	0.0148
n		3	3	3	3	3	3	3	3
Average		0.039	0.010	0.00003	0.027	0.0021	0.0003	0.0017	0.012
Median		0.036	0.008	0.00003	0.027	0.0021	0.0003	0.0017	0.010
Minimum		0.031	0.008	0.00003	0.025	0.0020	0.0003	0.0016	0.010
Maximum		0.051	0.013	0.00003	0.030	0.0022	0.0004	0.0019	0.015
Stdev		0.010	0.003	0	0.003	0.0001	0.0001	0.0002	0.003

Aluminium

Total aluminium concentrations ranged from 0.054 g/m³ to 0.154 g/m³ with an average concentration of 0.093 g/m³.

Dissolved aluminium concentrations ranged from 0.031 g/m³ to 0.051 g/m³ with an average concentration of 0.039 g/m³.

Arsenic

Total arsenic concentrations ranged from 0.0087 g/m³ to 0.0122 g/m³ with an average concentration of 0.010 g/m³.

Dissolved arsenic concentrations ranged from 0.008 g/m³ to 0.0126 g/m³ with an average concentration of 0.010 g/m³.

Cadmium

Total cadmium concentrations were always below the detection limits of < 0.000053 g/m³.

Dissolved cadmium concentrations were always below the detection limits of < 0.00005 g/m³.

Chromium

Total chromium concentrations ranged from 0.026 g/m³ to 0.034 g/m³ with an average concentration of 0.029 g/m³.

Dissolved chromium concentrations ranged from 0.025 g/m³ to 0.03 g/m³ with an average concentration of 0.027 g/m³.

Chemical speciation of the chromium was undertaken in order to determine whether hexavalent chromium (CrVI), the form of chromium most toxic to aquatic organisms, was present in the effluent (Table 3). Laboratory results showed that hexavalent chromium was not detected in the three rounds of sampling, although it is noted that the lowest detection limit that could be achieved by Hill laboratory on effluent samples was 0.01 g/m³, i.e. 10 times higher than the ANZECC trigger value.

Copper

Total copper concentrations ranged from 0.0039 g/m³ to 0.0051 g/m³ with an average concentration of 0.0044 g/m³.

Dissolved copper concentrations ranged from 0.002 g/m³ to 0.0022 g/m³ with an average concentration of 0.0021 g/m³.

Lead

Total lead concentrations ranged from 0.00039 g/m³ to 0.00072 g/m³ with an average concentration of 0.0005 g/m.

Dissolved lead concentrations ranged from 0.0003 g/m³ to 0.00042 g/m³ with an average concentration of 0.0003 g/m.

Nickel

Total nickel concentrations ranged from 0.00194 g/m³ to 0.0025 g/m³ with an average concentration of 0.0022 g/m³.

Dissolved nickel concentrations ranged from 0.0016 g/m³ to 0.0019 g/m³ with an average concentration of 0.0017 g/m³.

Zinc

Total zinc concentrations ranged from 0.0173 g/m³ to 0.022 g/m³ with an average concentration of 0.019 g/m³.

Dissolved zinc concentrations ranged from 0.0096 g/m³ to 0.0148 g/m³ with an average concentration of 0.012 g/m³.

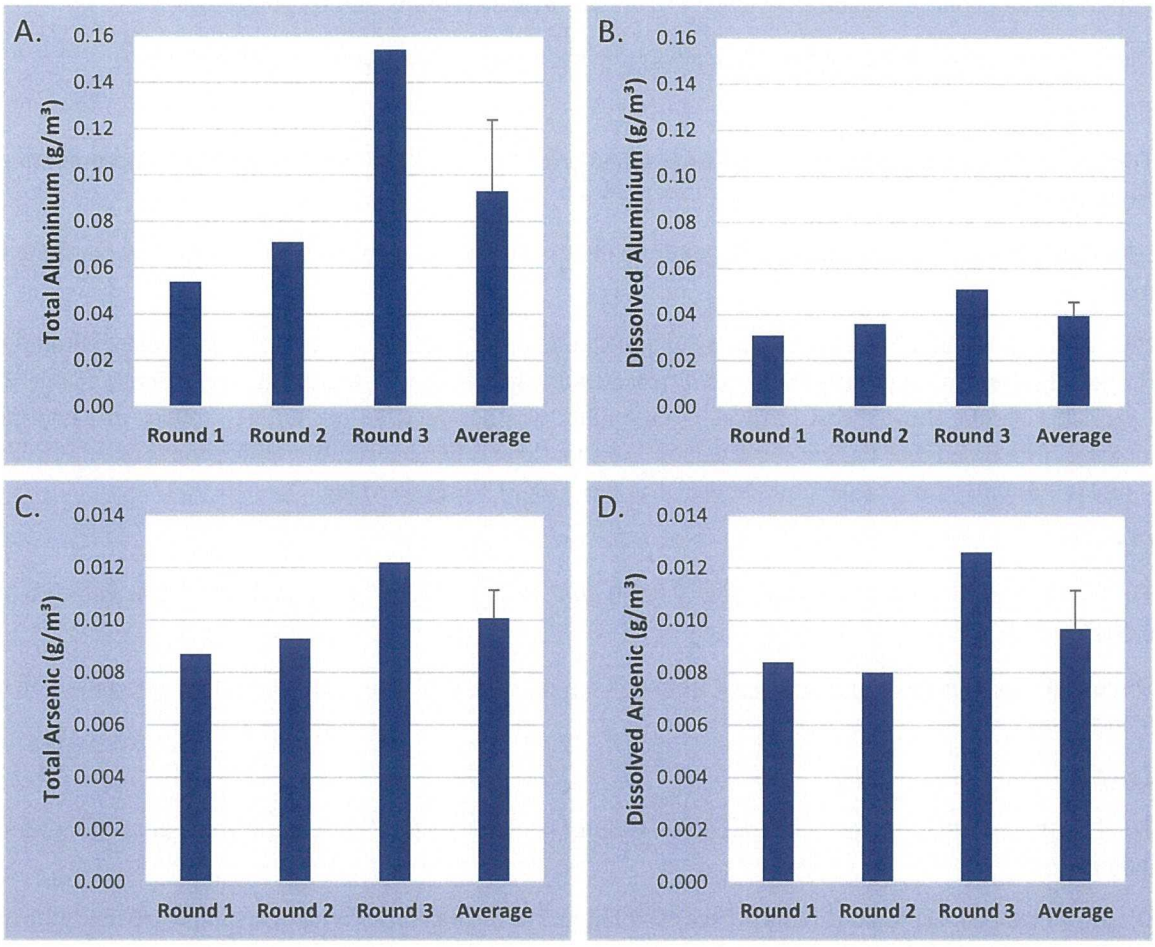

Figure 2: Trace metals in effluent samples collected from the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3): A. Total Aluminium, B. Dissolved Aluminium, C. Total Arsenic and D. Dissolved Arsenic.

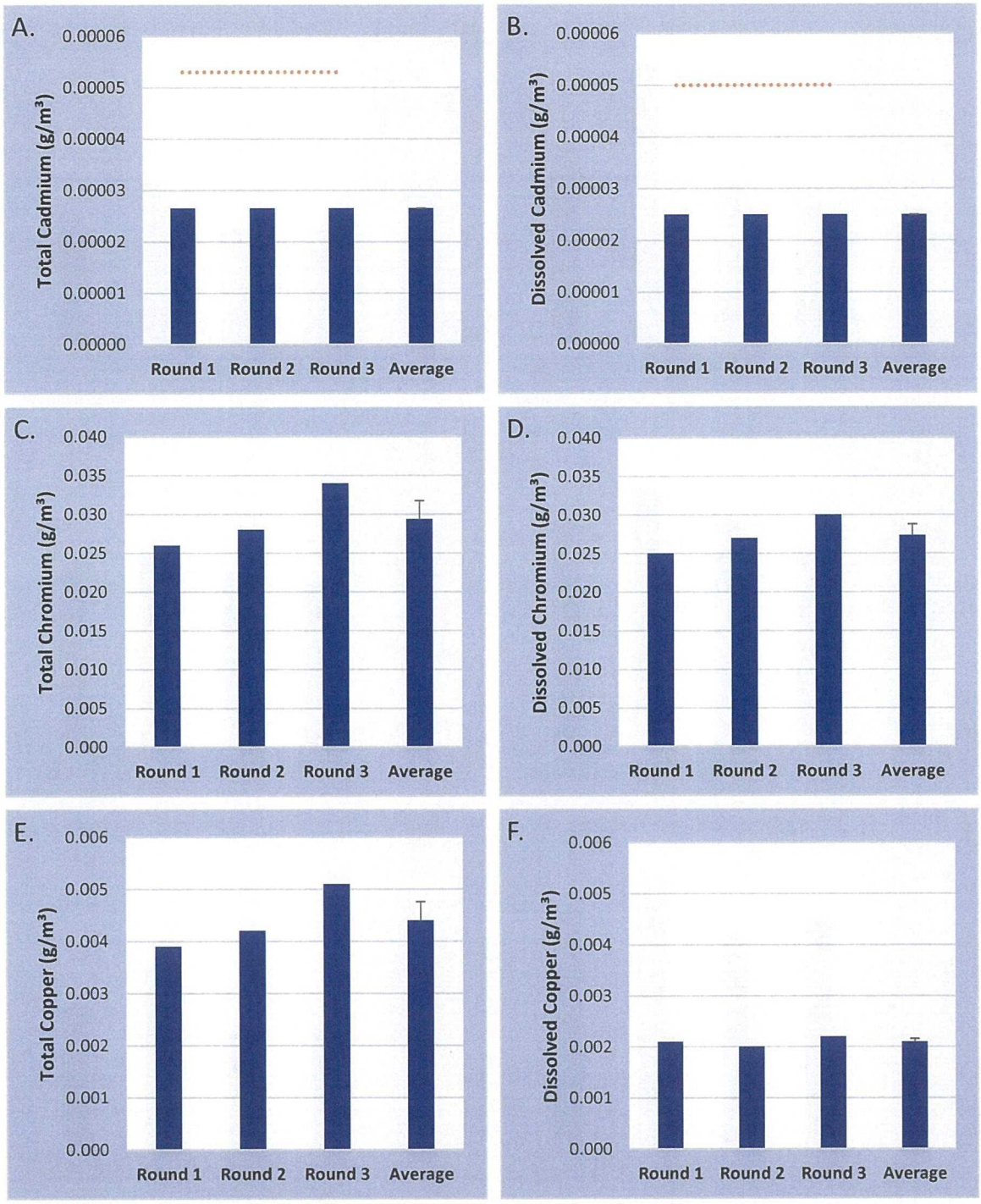

Figure 3: Trace metals in effluent samples collected from the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3): A. Total Cadmium, B. Dissolved Cadmium, C. Total Chromium, and D. Dissolved Chromium, E. Total Copper and F. Dissolved Copper. Laboratory detection limits are presented as dotted orange lines.

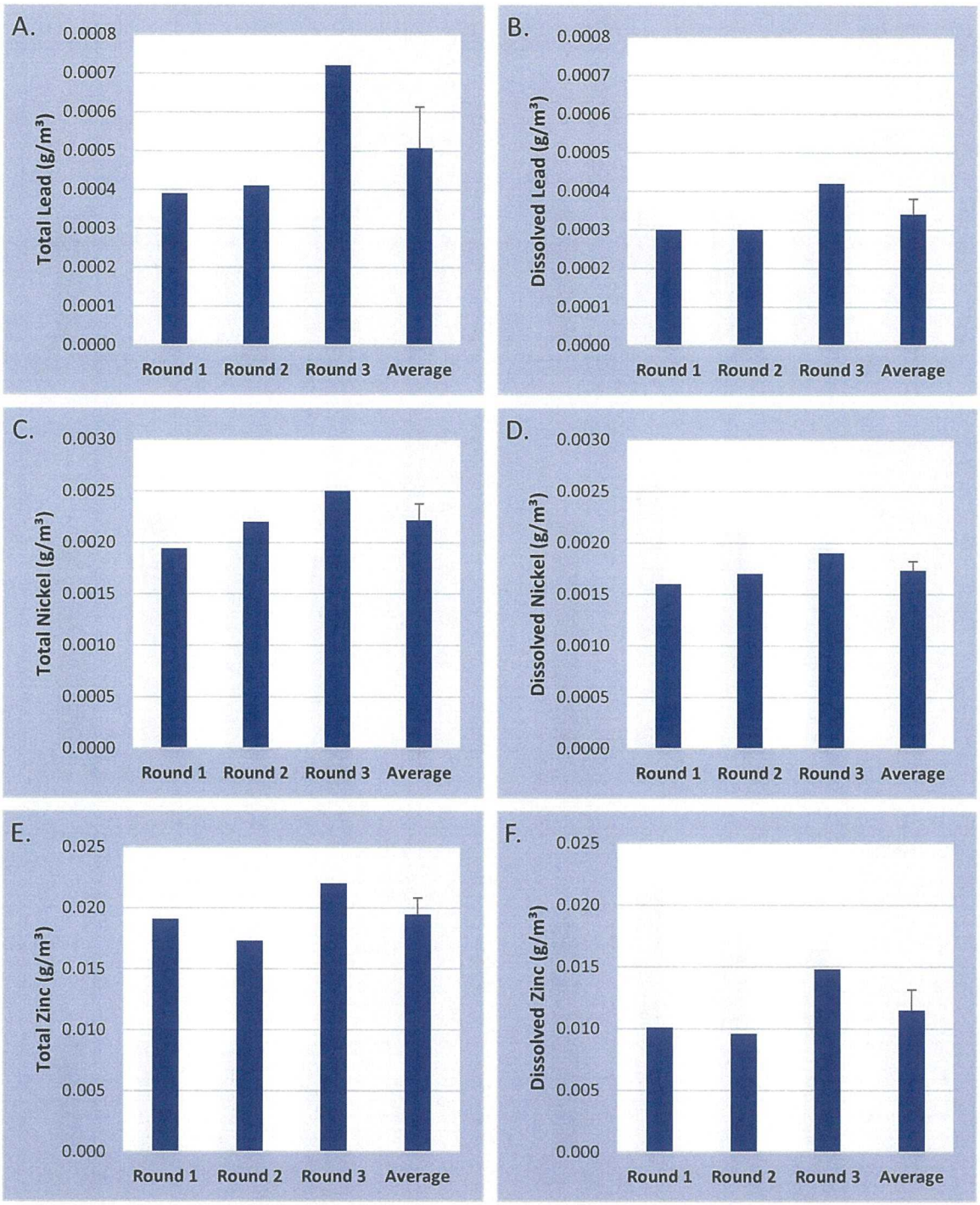

Figure 4: Trace metals in effluent samples collected from the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3): A. Total Lead, B. Dissolved Lead, C. Total Nickel, and D. Dissolved Nickel, E. Total Zinc and F. Dissolved Zinc.

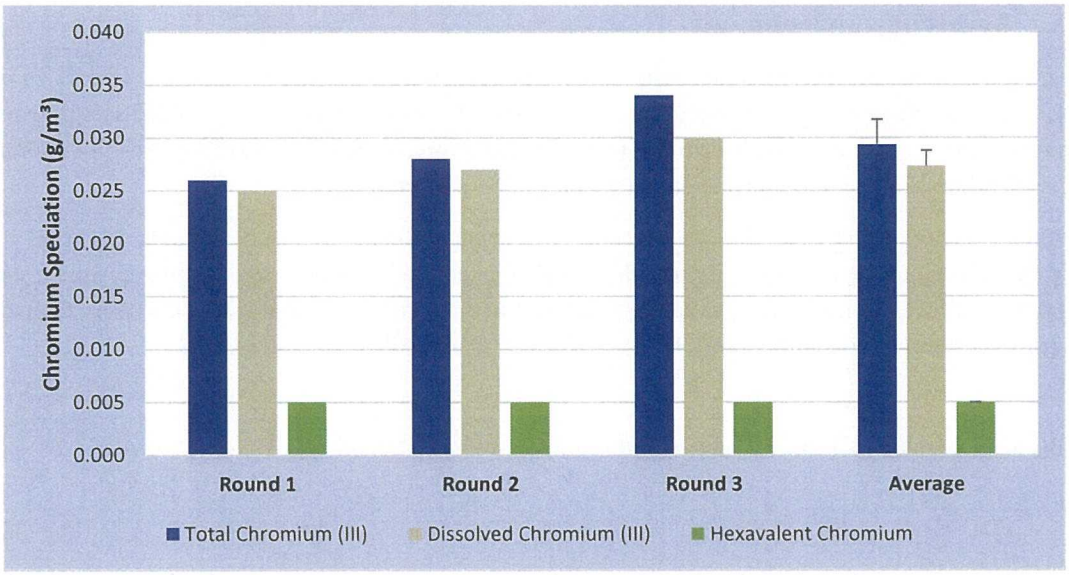

Figure 5: Chemical speciation of chromium in Marton WWTP effluent samples, collected on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). Hexavalent chromium concentrations were below the laboratory detection limit of 0.010 g/m³ during each sampling round.

3.2. Receiving Environment

As with the effluent samples, instream water quality samples were collected by Rangitikei District Council (RDC) staff over three rounds of sampling on the 8th June, 20th June and the 4th July, 2016. Sampling rounds were two weeks apart and during base flows in the Tutaenui Stream. Samples were sent to Hill Laboratories for dissolved trace metal analysis and chemical speciation of chromium.

Laboratory detection limits used were generally consistent to those proposed in Table 1, except during round two of monitoring (20th June, 2016) where higher detection limits were used for the upstream sample. Hills laboratory were not able to explain the difference in detection limits, but it appears likely to be due to the upstream samples containing more suspended solids than the downstream sample.

Results are presented in Table 5, Table 6 and Figure 6 to Figure 14, below.

Table 5: Chemical speciation of Chromium upstream and 500m downstream of the Marton WWTP, 2016.

Round / Date		Dissolved Chromium (III) (g/m³)		Hexavalent Chromium (g/m³)	
		U/S	D/S	U/S	D/S
Round 1	8/06/2016	< 0.0012	0.0094	< 0.001	< 0.001
Round 2	20/06/2016	< 0.0015	0.0018	< 0.001	< 0.001
Round 3	4/07/2016	< 0.0012	0.0023	< 0.001	< 0.001
n		3	3	3	3
Average		0.001	0.005	0.001	0.001
Median		0.001	0.002	0.001	0.001
Minimum		0.001	0.002	0.001	0.001
Maximum		0.001	0.009	0.001	0.001
Stdev		0	0.004	0	0

Table 6: Trace metal concentrations upstream and 500m downstream of the Marton WWTP, 2016.

Round / Date		Dissolved Aluminium (g/m³)		Dissolved Arsenic (g/m³)		Dissolved Cadmium (g/m³)		Dissolved Chromium (g/m³)	
		U/S	D/S	U/S	D/S	U/S	D/S	U/S	D/S
Round 1	8/06/2016	0.014	0.019	< 0.001	0.0038	< 0.00005	< 0.00005	< 0.0005	0.0099
Round 2	20/06/2016	0.119	0.107	< 0.002	0.0016	< 0.0001	< 0.00005	< 0.001	0.0025
Round 3	4/07/2016	0.074	0.074	< 0.001	0.0016	< 0.00005	< 0.00005	< 0.0005	0.0025
n		3	3	3	3	3	3	3	3
Average		0.069	0.067	0.0007	0.0023	0.000033	0.000025	0.00033	0.00497
Median		0.074	0.074	0.0005	0.0016	0.000025	0.000025	0.00025	0.00250
Minimum		0.014	0.019	0.0005	0.0016	0.000025	0.000025	0.00025	0.00250
Maximum		0.119	0.107	0.0010	0.0038	0.000050	0.000025	0.00050	0.00990
Stdev		0.053	0.044	0.0003	0.0013	0.000014	0	0.00014	0.00427

Round / Date		Dissolved Copper (g/m³)		Dissolved Lead (g/m³)		Dissolved Nickel (g/m³)		Dissolved Zinc (g/m³)	
		U/S	D/S	U/S	D/S	U/S	D/S	U/S	D/S
Round 1	8/06/2016	0.0024	0.0021	< 0.0001	0.00014	< 0.0005	0.0007	0.0058	0.0078
Round 2	20/06/2016	0.003	0.003	< 0.0002	0.00011	< 0.001	< 0.0005	0.007	0.0074
Round 3	4/07/2016	0.0026	0.0025	< 0.0001	<0.0001	< 0.0005	< 0.0005	0.0062	0.0071
n		3	3	3	3	3	3	3	3
Average		0.0027	0.0025	0.00007	0.00010	0.00033	0.00040	0.0063	0.0074
Median		0.0026	0.0025	0.00005	0.00011	0.00025	0.00025	0.0062	0.0074
Minimum		0.0024	0.0021	0.00005	0.00005	0.00025	0.00025	0.0058	0.0071
Maximum		0.0030	0.0030	0.00010	0.00014	0.00050	0.00070	0.0070	0.0078
Stdev		0.0003	0.0005	0.00003	0.00005	0.00014	0.00026	0.0006	0.0004

Aluminium

Dissolved aluminium concentrations at the upstream site ranged from 0.014 g/m³ to 0.119 g/m³ with an average concentration of 0.069 g/m³. Concentrations at the downstream site ranged from 0.019 g/m³ to 0.107 g/m³ with an average concentration of 0.067 g/m³. Dissolved aluminium concentrations were below the ANZECC guideline of 0.055 g/m³ at both sites during round one of monitoring and above the guideline during the second and third monitoring rounds.

Arsenic

Dissolved arsenic concentrations at the upstream site were below laboratory detection limits of 0.001 g/m³ (8th June & 4th July, 2016) and 0.002 g/m³ (20th June, 2016) on each sampling occasion. Concentrations at the downstream site ranged from 0.0016 g/m³ to 0.0038 g/m³ with an average concentration of 0.0023 g/m³. Dissolved arsenic concentrations were well below the ANZECC guideline of 0.024 g/m³ at both sites over the three monitoring rounds.

Cadmium

Dissolved cadmium concentrations were below laboratory detection limits of 0.00005 g/m³ and 0.0001 g/m³ at both sites over the three monitoring rounds. Concentrations were also well below the ANZECC guideline of 0.0002 g/m³ at both sites over the three monitoring rounds.

Chromium

Dissolved chromium concentrations at the upstream site were below the laboratory detection limits of 0.0005 g/m³ (8th June & 4th July, 2016) and 0.001 g/m³ (20th June, 2016) over the monitoring period. Concentrations at the downstream site ranged from 0.0025 g/m³ to 0.0099 g/m³ with an average concentration of 0.005 g/m³. Dissolved chromium concentrations were below the ANZECC guideline of 0.001 g/m³ for hexavalent chromium at the upstream site during the three rounds of sampling, while concentrations at the downstream site exceeded the guideline by almost 10 times during the first round of monitoring and 2.5 times in the second and third rounds.

As with the effluent samples, chemical speciation of the chromium was undertaken in order to determine whether hexavalent chromium (CrVI), the form of chromium most toxic to aquatic organisms, was present in the Tutaenui Stream upstream and downstream of the Marton WWTP (Table 5). Hexavalent chromium was not detected in any of the samples collected during the three rounds of sampling, both upstream and downstream of the plant, using the lowest laboratory detection limit available for instream samples (Hill Laboratories: 0.001 g/m³).

Copper

Dissolved copper concentrations at the upstream site ranged from 0.0024 g/m³ to 0.003 g/m³ with an average concentration of 0.0027 g/m³. Concentrations at the downstream site ranged from 0.0021 g/m³ to 0.003 g/m³ with an average concentration of 0.0025 g/m³. Dissolved copper concentrations exceeded the ANZECC guideline of 0.0014 g/m³ at both upstream and downstream sites during the three rounds of monitoring.

Lead

Dissolved lead concentrations at the upstream site were below laboratory detection limits of 0.0001 g/m³ (8th June & 4th July, 2016) and 0.0002 g/m³ (20th June, 2016) on each sampling occasion. Concentrations at

the downstream site were 0.00014 g/m³ in the first round, 0.00011 g/m³ in the second round and below the detection limit of 0.0001 g/m³ in the third round. Dissolved lead concentrations were well below the ANZECC guideline of 0.0034 g/m³ at both sites over the three monitoring rounds.

Nickel

Dissolved nickel concentrations at the upstream site were below laboratory detection limits of 0.0005 g/m³ (8th June & 4th July, 2016) and 0.001 g/m³ (20th June, 2016) on each sampling occasion. Concentrations at the downstream site were 0.0007 g/m³ in the first round and below the detection limit of 0.0005 g/m³ in the second and third round. Dissolved nickel concentrations were well below the ANZECC guideline of 0.010 g/m³ at both sites over the three monitoring rounds.

Zinc

Dissolved zinc concentrations at the upstream site ranged from 0.0058 g/m³ to 0.007 g/m³ with an average concentration of 0.0063 g/m³. Concentrations at the downstream site ranged from 0.0071 g/m³ to 0.0078 g/m³ with an average concentration of 0.0074 g/m³. Dissolved zinc concentrations were below the ANZECC guideline of 0.008 g/m³ at both sites during the three rounds of monitoring.

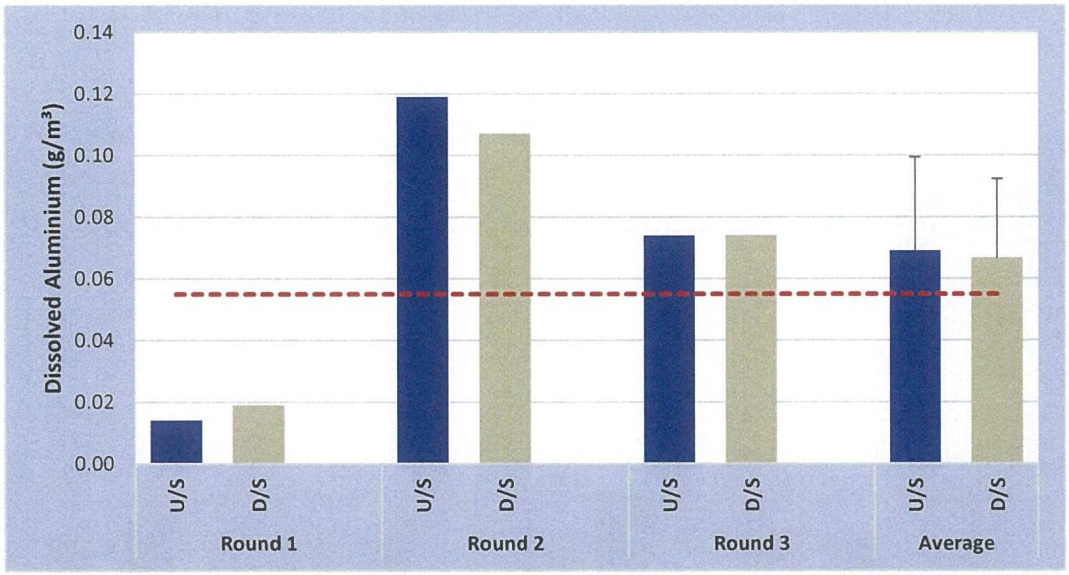

Figure 6: Trace dissolved aluminium in aqueous samples collected from the Tutaenui Stream upstream and 500m downstream of the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). The ANZECC (2000) guideline for aluminium (ISQG-Low) is presented as a dashed red line.

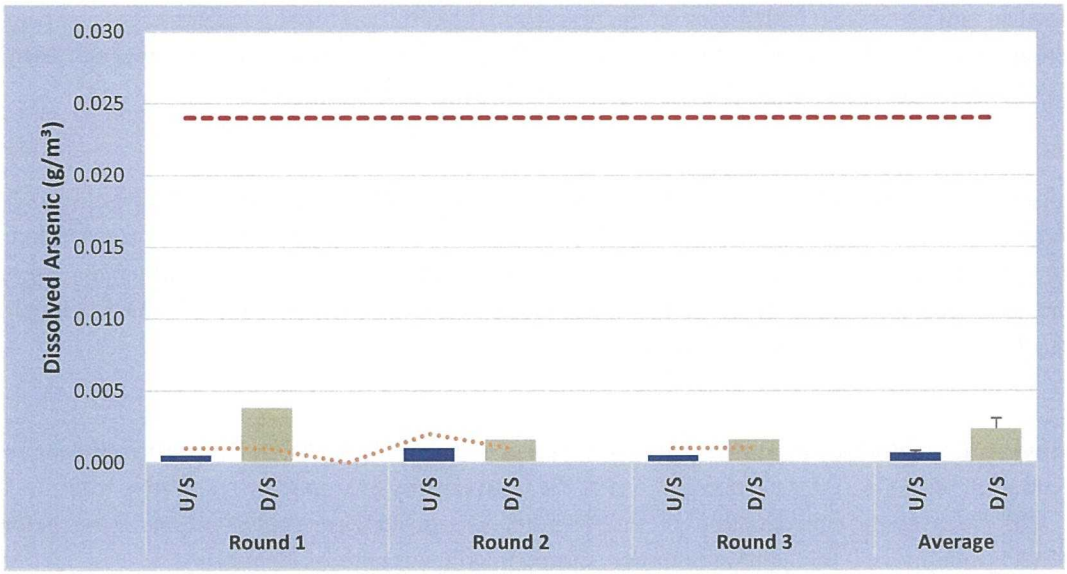

Figure 7: Trace dissolved arsenic in aqueous samples collected from the Tutaenui Stream upstream and 500m downstream of the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). The ANZECC (2000) guideline for arsenic (ISQG-Low) is presented as a dashed red line. The laboratory detection limits are presented as dotted orange lines.

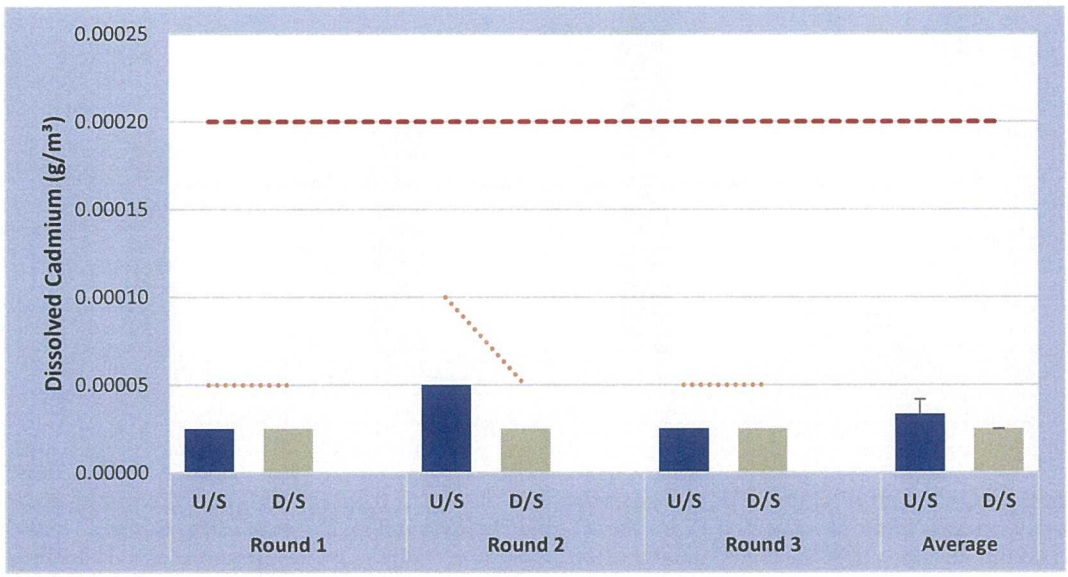

Figure 8: Trace dissolved cadmium in aqueous samples collected from the Tutaenui Stream upstream and 500m downstream of the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). The ANZECC (2000) guideline for cadmium (ISQG-Low) is presented as a dashed red line. The laboratory detection limits are presented as dotted orange lines.

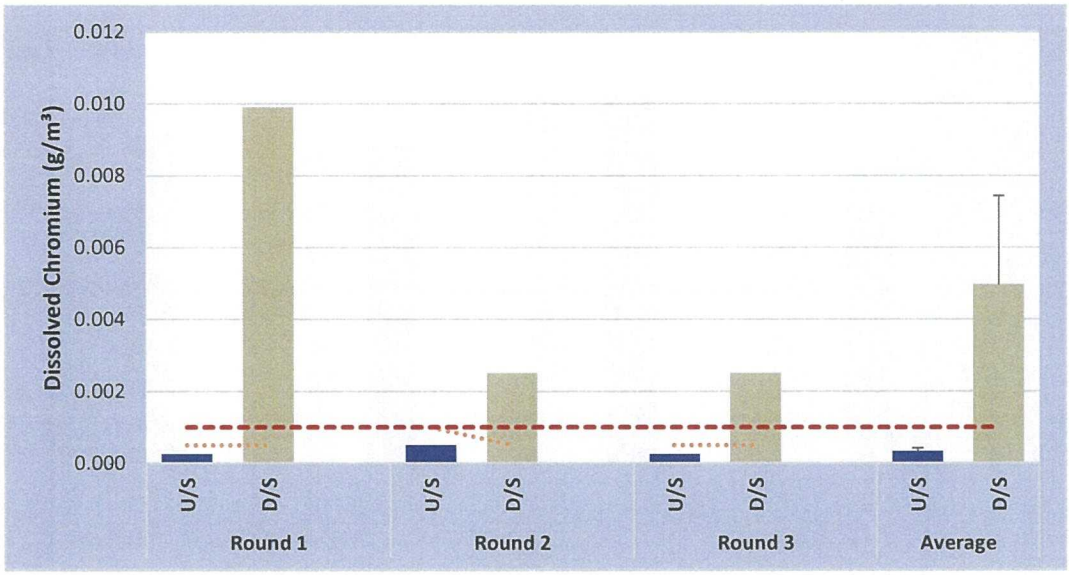

Figure 9: Trace dissolved chromium in aqueous samples collected from the Tutaenui Stream upstream and 500m downstream of the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). The ANZECC (2000) guideline for chromium (ISQG-Low) is presented as a dashed red line. The laboratory detection limits are presented as dotted orange lines.

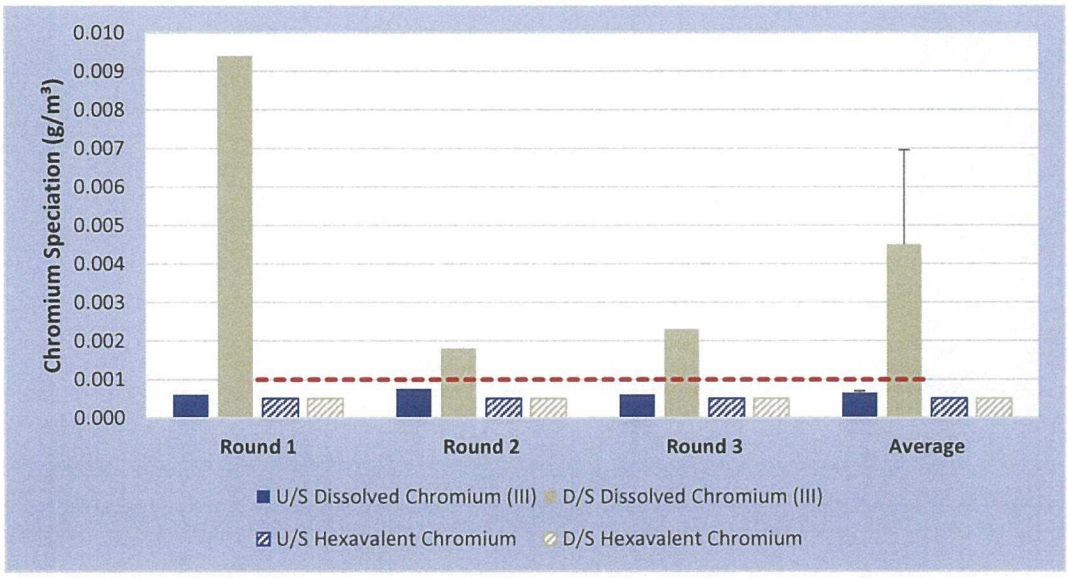

Figure 10: Chemical speciation of chromium in aqueous samples collected upstream and 500m downstream of the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). Dissolved chromium III concentrations were below the laboratory detection limit of 0.0012 to 0.0015 g/m³ on each sampling occasion at the upstream site. Hexavalent chromium concentrations were below the laboratory detection limit of 0.0005 g/m³ during each sampling round at both sites.

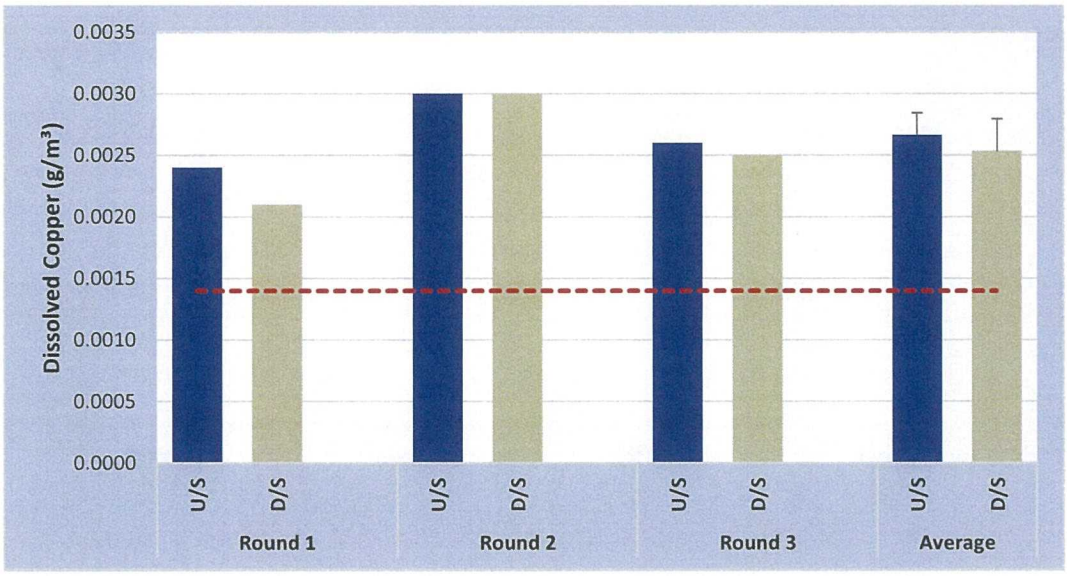

Figure 11: Trace dissolved copper in aqueous samples collected from the Tutaenui Stream upstream and 500m downstream of the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). The ANZECC (2000) guideline for copper (ISQG-Low) is presented as a dashed red line.

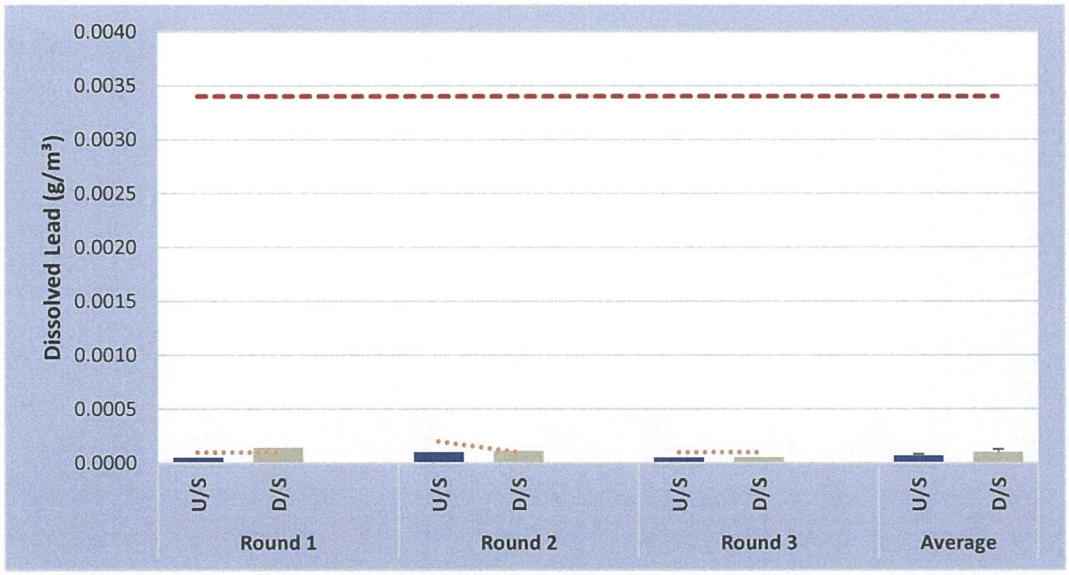

Figure 12: Trace dissolved lead in aqueous samples collected from the Tutaenui Stream upstream and 500m downstream of the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). The ANZECC (2000) guideline for lead (ISQG-Low) is presented as a dashed red line. The laboratory detection limits are presented as dotted orange lines.

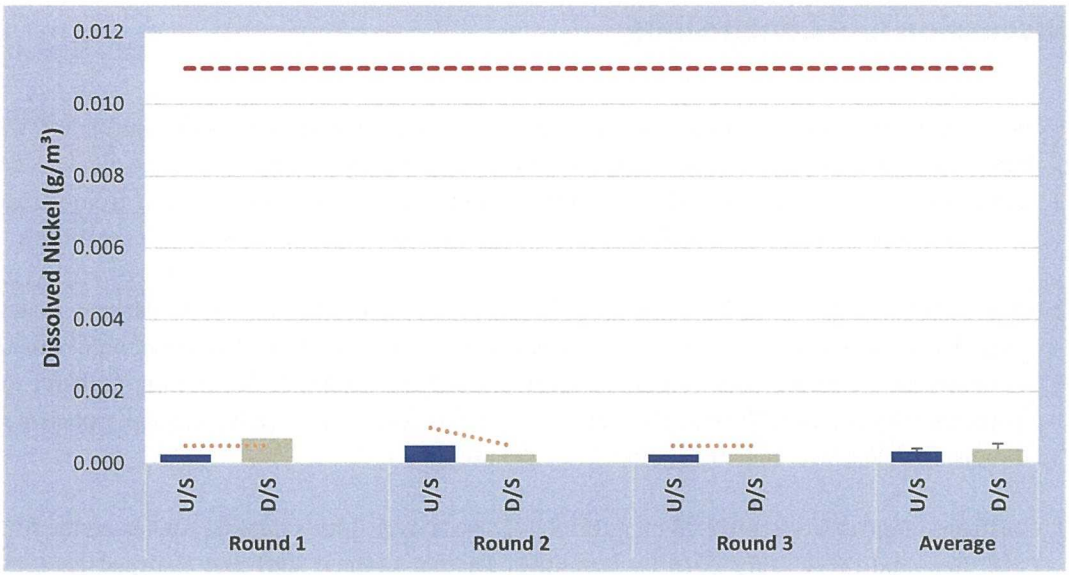

Figure 13: Trace dissolved nickel in aqueous samples collected from the Tutaenui Stream upstream and 500m downstream of the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). The ANZECC (2000) guideline for nickel (ISQG-Low) is presented as a dashed red line. The laboratory detection limits are presented as dotted orange lines.

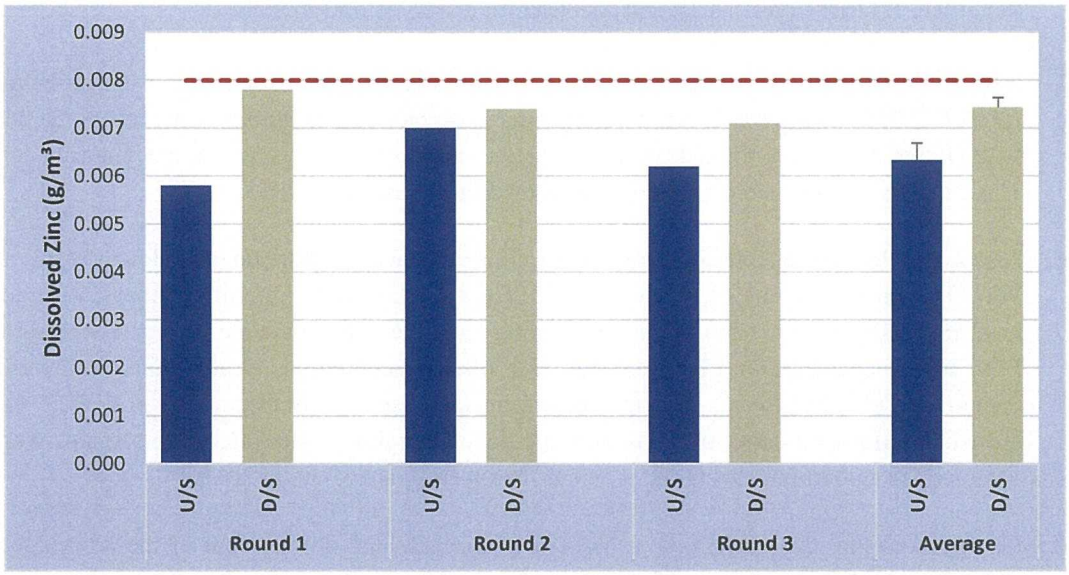

Figure 14: Trace dissolved zinc in aqueous samples collected from the Tutaenui Stream upstream and 500m downstream of the Marton WWTP on the 8th June 2016 (Round 1), 20th June 2016 (Round 2) and 4th July 2016 (Round 3). The ANZECC (2000) guideline for zinc (ISQG-Low) is presented as a dashed red line.

4. Discussion and Conclusions

1. Rangitikei District Council owns and operates the Marton Wastewater Treatment Plant (WWTP) which provides treatment for sewage from the Marton Township and the immediate surrounding areas. Resource Consents N 7312 allows for the discharge of treated sewage waste from the Marton WWTP to the Tutaenui Stream. It was granted in April 1998 subject to a suite of conditions.

2. Since 2006, leachate from the Bonny Glen Landfill has been discharged into the Marton wastewater reticulation system a few kilometres upstream of the Marton WWTP. The intention of this report is to present the results of the second stage risk-based assessment of the Marton discharge and its potential effects on the Tutaenui Stream, with specific regards to metals potentially present in the Bonny Glen leachate, in particular hexavalent chromium.

3. Effluent samples were collected on a fortnightly basis over three sampling rounds on the 8th June, 20th June and the 4th July 2016 by Rangitikei District Council staff and analysed for total and dissolved trace metals. Consistent with previous monitoring of metals undertaken in 2015, aluminium, arsenic, chromium, copper, lead, nickel and zinc were detected in the samples of the effluent, while total cadmium was below detection limit on each sampling occasion.

4. Instream samples were collected at the same time as effluent samples, on a fortnightly basis over three sampling rounds on the 8th June, 20th June and the 4th July 2016. Samples were collected by Rangitikei District Council staff and analysed for dissolved trace metals.

5. Instream concentrations of dissolved arsenic, cadmium, lead, nickel and zinc were all below the ANZECC 95% protection level for freshwater upstream and 500m downstream of the Marton WWTP, indicating that the risk of toxic effect from these metals is low in the Tutaenui Stream. These results are consistent with previous sampling carried out in 2015.

6. Dissolved aluminium concentrations were similar between upstream and downstream of the WWTP, with concentrations below the ANZECC guideline of 0.055 g/m³ for the 95% protection level for freshwater in round one of monitoring and above the guideline in round two and three. With similar concentrations between sites and lower concentrations of aluminium in the effluent than in the Tutaenui Stream, these results indicate that discharge from the Marton WWTP was not influencing instream concentrations over the three sampling rounds. Instream samples were not analysed for aluminium during the previous monitoring carried out in 2015.

7. Dissolved copper concentrations at both sites upstream and downstream of the discharge were above the ANZECC guideline of 0.0014 g/m³ for the 95% protection level for freshwater, consistent with 2015 monitoring results. There was a relatively minor average decrease in copper concentration between upstream and downstream of the discharge (5.4%). This decrease is within the laboratory analytical accuracy and probably not material, indicating that the risk of effects from copper would be very similar upstream and downstream of the discharge. This result is consistent to previous sampling carried out in 2015 where a relatively minor (<10%) difference was found between sites.

8. Dissolved chromium concentrations significantly increased downstream of the Marton WWTP discharge, exceeding the ANZECC guideline of 0.001 g/m^3 for hexavalent chromium (95% protection level). The increase in chromium concentrations between upstream and downstream sites correlates with elevated chromium concentrations in the discharge, indicating that the discharge is the likely source of the increase in chromium concentrations in this stretch of the Tutaenui stream. These results are consistent to previous sampling carried out in 2015.

9. Chemical speciation of the chromium was undertaken in order to determine whether hexavalent chromium (CrVI), the form of Chromium most toxic to aquatic organisms, was present in the effluent and receiving environment. Laboratory results showed that hexavalent chromium was <u>not</u> detected in the three rounds of sampling in the effluent or either of the instream sites.

10. Overall, these results indicate that the discharge from the Marton WWTP contains detectable concentrations of common metals, but that these don't seem to give rise to more than low risks of toxic effects on aquatic life in the Tutaenui Stream downstream of the discharge.

APPENDICES

I

Appendix A:

Resource Consent Condition for In-stream Aquatic Monitoring, as required by Horizons Regional Council.

Consent N. 7312:

4. The Consent Holder shall conduct an in-stream biota survey, including benthic invertebrates and periphyton, during low flows in Tutaenui Stream, once every 3 years from the date of issue of this consent, for the duration of the consent. The survey shall be carried out at four locations: immediately upstream of the discharge outfall, about 50 metres downstream of the outfall, about 500 metres downstream of the outfall, and at Curls Bridge. The Consent Holder shall forward a report on the survey results to the Regional Council within 3 months of the completion of each survey.