



## **ASSETS AND SERVICES COMMITTEE**

### **Agenda**

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#### **NOTICE OF MEETING**

An ordinary meeting will be held in the Supper Room, Waihinga Centre, Martinborough on Wednesday 4 September 2019 at 11:30am. The meeting will be held in public (except for any items specifically noted in the agenda as being for public exclusion).

#### **MEMBERSHIP OF THE COMMITTEE**

Councillors Brian Jephson (Chair), Lee Carter, Pam Colenso, Colin Olds, Colin Wright, Mike Gray and community board chairs Lisa Cornelissen, Robyn Ramsden, Leigh Hay and Māori Standing Committee Chair Raihānia Tipoki.

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#### **Open Section**

- A1.** Apologies
- A2.** Conflicts of interest
- A3.** Public participation  
*As per standing order 14.17 no debate or decisions will be made at the meeting on issues raised during the forum unless related to items already on the agenda.*  
Roger Parkinson speaking in support of a waiver for the capital contribution component of the charges for the non-chlorinated water connections 9:00am
- A4.** Actions from public participation
- A5.** Extraordinary business
- A6.** Minutes for Confirmation: Pages 1-5  
Assets and Services Committee Minutes of 24 July 2019  
***Proposed Resolution:*** *That the minutes of the Assets and Services Committee meeting held on 24 July 2019 are a true and correct record.*

Assets and Services Committee Public Excluded Minutes of 24 July 2019

***Proposed Resolution:*** *That the public excluded minutes of the Assets and Services Committee held on the 24 July 2019 are received in public.*

***Proposed Resolution:*** *That the public excluded minutes of the Assets and Services Committee meeting held on 24 July 2019 are a true and correct record.*

**A7.** Notices of motion

**B. Decision Reports from Chief Executive and Staff**

**B1.** Report on Wineries Water Connections Pages 6-8

**C. Information and Verbal Reports from Chief Executive and Staff**

**C1.** Infrastructure and Services Group Report Pages 9-34

**C2.** Assets and Services Action Items Report Pages 35-41

**C3.** Lutra Recommendations Pages 42-61



**ASSETS AND SERVICES COMMITTEE**  
**Minutes from 24 July 2019**

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<b>Present:</b>	Councillors Brian Jephson (Chair), Lee Carter, Pam Colenso (from 9:01am), Colin Olds, Mike Gray, Colin Wright and Robyn Ramsden (Featherston Community Board Chair).
<b>In Attendance:</b>	Harry Wilson (Chief Executive), Mark Allingham (Group Manager Infrastructure and Services), Suzanne Clark (Committee Advisor) and for part only Tim Langley (Roading Manager), Michael Chadderton, Paul Smart and Willie Silcock (Fulton Hogan), and Jo Dean (Zero Waste Coordinator).
<b>Conduct of Business:</b>	The meeting was held in the WBS Room, Greytown Town Centre, Greytown and was conducted in public between 9:00am and 11:13am except where expressly noted.

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**Open Section**

**A1. Apologies**

*ASSETS AND SERVICES COMMITTEE RESOLVED (AS2019/19) to accept apologies from Mayor Viv Napier, Lisa Cornelissen and Leigh Hay.*

*(Moved Ramsden/Seconded Cr Gray)*

Carried

**A2. Conflicts of Interest**

There were no conflicts of interest declared.

**A3. Public Participation**

There was no public participation.

**A4. Actions from Public Participation**

There were no actions from public participation.

**A5. Extraordinary Business**

There was no extraordinary business.

**DISCLAIMER**

*Until confirmed as a true and correct record, at a subsequent meeting, the minutes of this meeting should not be relied on as to their correctness*

**A6. Minutes for Confirmation**

*ASSETS AND SERVICES COMMITTEE RESOLVED (AS2019/20)* that the minutes of the Assets and Services Committee meeting held on 19 June 2019 are a true and correct record.

*(Moved Cr Wright/Seconded Cr Olds)*

Carried

**A7. Notices of motion**

There were no notices of motion.

**B Information and Verbal Reports from Infrastructure and Services Group Manager and Staff**

**B1. Infrastructure and Services Group Report**

Fulton Hogan were in attendance to show members what asset and job management information was available in the RAMM software database so that members could provide feedback on what information they would like access to for monitoring of key performance indicator purposes.

Cr Carter left the meeting at 9:32am.

Cr Gray left the meeting at 9:33am.

Cr Carter returned to the meeting at 9:34am.

Cr Gray returned to the meeting at 9:34am.

Members noted that Mr Wilson's title in the Group Report was incorrect, he was the Chief Executive not Acting Chief Executive.

Mr Allingham discussed an engineering conference attended, reinstatement of roads and footpaths from fibre optic installation by Chorus, water supply noncompliance, operational management of Wellington Water staff, reporting of Lutra recommendations, use of Pain Farm for irrigating treated wastewater, sale of baleage from land irrigated with treated wastewater, housing for seniors, preparation of asset management plans for all Council owned buildings and reserves and stormwater drainage with members.

*ASSETS AND SERVICES COMMITTEE RESOLVED (AS2019/21):*

1. To receive the Infrastructure and Services Group Report.

*(Moved Cr Colenso/Seconded Ramsden)*

Carried

2. Action 7: Send an email to the Assets and Services Committee explaining what noncompliance with protozoa in Greytown water supply means; M Allingham
3. Action 8: Review the Infrastructure and Services Group Report KPI's to ensure that the correct survey results are reported; M Allingham
4. Action 9: Fix the spelling mistake in the wastewater service level table in the Infrastructure and Services Group Report; M Allingham
5. Action 10: Provide to the Assets and Services Committee the end-of-lease date for the new Pain Farm lease, and the planned date for irrigating treated wastewater to Pain Farm; M Allingham
6. Action 11: Pass on to GWRC a request from the Assets and Services Committee to clean/attend to the drain by the Featherston Railway Station as

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there have been instances of unacceptable flooding levels in the carpark; M Allingham

7. Action 12: Remove the wording 'low cost housing' from the Infrastructure and Services Report and replace with 'affordable housing'; M Allingham
8. Action 13: Send an email to the A&S Committee explaining why the South Wairarapa District libraries have not received the public access computing upgrade; M Allingham
9. Action 14: Provide an email update to the Assets and Services Committee on what stormwater sumps have been inspected and cleaned and the weight of material taken from each sump; M Allingham

## **B2. Action Items Report**

Members discussed the action items and updates were provided by Council officers.

Mr Allingham undertook to review the proposed speed limit for Cotter Street, as it was understood the current speed management guide only allowed speed limits in multiples of 20km per hour, except with the permission of NZTA.

*ASSETS AND SERVICES COMMITTEE RESOLVED (AS2019/22):*

1. To receive the Action Items Report.  
*(Moved Cr Colenso/Seconded Cr Gray)* Carried
2. Action 15: Prepare a report on the Featherston flooding event for the Featherston Community Board, with consideration given to outlining the damage caused and rectification action; M Allingham

## **B3. Zero Waste Coordinator Update**

Ms Dean advised that the Wheelie Bin project would be rolled out to the South Wairarapa on the 9 September 2019 and answered members' questions on wheelie bin replacement and pickups under various scenarios.

## **B4. Water Race Subcommittee**

Cr Olds tabled a report from the Water Race Subcommittee and spoke about the process for appointing members to the Subcommittee.

Mr Wilson noted that water races would be a significant and complex piece of work due to the historical nature of the race and current ecological considerations.

*ASSETS AND SERVICES COMMITTEE RESOLVED (AS2019/23)* to delegate to Cr Olds and the Chief Executive the selection of people to participate in the Water Race Subcommittee.

*(Moved Cr Wright/Seconded Cr Olds)* Carried

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## B5. Glyphosate

Members discussed Council's current use of glyphosate and the Committees agreement for Council not to lead the investigation into weed control alternatives to glyphosate.

Members noted that there was no connectivity between Council reporting and remits supported by elected members at the 2019 LGNZ conference.

Mr Wilson noted that glyphosate had been assessed by the Environmental Protection Agency and was approved for use in NZ. Local Government NZ (LGNZ) remits were not binding on councils, but they formed a unified position for LGNZ to take when lobbying central government on current issues.

### *ASSETS AND SERVICES COMMITTEE NOTED:*

1. Action 16: In the 2019 LGNZ Conference report update to Council outline the key remits supported; Cr Olds, Cr Carter, Mayor Napier

## Public Excluded

### C. Public Excluded Minutes from 19 June 2019

*ASSETS AND SERVICES COMMITTEE RESOLVED (AS2019/24)* that the public be excluded from the following parts of the proceedings, namely:

- C1. Receipt and confirmation of the public excluded minutes of the Assets and Services Committee meeting 19 June 2019

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

<b>Report/General Subject Matter</b>	<b>Reason for passing this resolution in relation to the matter</b>	<b>Ground(s) under Section 48(1) for the passing of this Resolution</b>
Receipt and confirmation of the public excluded minutes of the Assets and Services Committee meeting 19 June 2019	Good reason to withhold exists under section 7(2)(f)(h)	Section 48(1)(a)

This resolution is made in reliance on Section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by section 6 or section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public are as follows:

<b>Reason for passing this resolution in relation to the matter</b>	<b>Ground(s) under Section 48(1) for the passing of this Resolution</b>
f) to maintain the effective conduct of public affairs through- i) the free and frank expression of opinions by or between or to members or officers or employees of any local authority, or any persons to whom section 2(5) applies, in the course of their duty.	Section 7(2)(f)(h)

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<p>ii) the protection of such members, officers, employees, and person from improper pressure or harassment.</p> <p>(h) enable any local authority holding the information to carry out, without prejudice or disadvantage, negotiations (including commercial and industrial)</p>	
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*(Moved Cr Olds/Seconded Ramsden)*

Carried

**Confirmed as a true and correct record**

.....(Chair)

.....(Date)

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# ASSETS AND SERVICES COMMITTEE

4 SEPTEMBER 2019

## AGENDA ITEM B1

### REPORT ON WINERIES WATER CONNECTIONS

#### **Purpose of Report**

To inform members of work to assist three wineries.

#### **Recommendations**

Officers recommend that the Committee:

1. *To recommend to Council to decline a request for waiving the water connection fee as mandated in the water supply policy'.*
2. *To recommend to Council to request the normal water (not pro-rata 2.56 times) connection fee of \$3,249.42 plus GST on the basis that wineries agree to a reduction in water usage (remove irrigation) by an agreed date.*

#### **1. Executive Summary**

The council collects a capital contribution for each new water and wastewater connection or property. These funds are held in reserves to cover the future capital work to upgrade the network or treatment plant when a capacity constraint is identified.

The wineries that connected to an un-chlorinated water main are requesting the waiver the capital contributions for the new connections.

It is recommended that Council decline a request for waiving the water connection fee as mandated in the water supply policy. Council may consider not implementing the full pro-rata water (2.56 times) connection fee of \$8,318.51 plus GST if the wineries agree to a reduction in water usage. This is anticipating the likely outcomes of new legislation, for instance, an alternative water source for irrigation.

#### **2. Background**

Following the E.coli incidents in Martinborough, it was identified that the decision to chlorinate would affect the wineries. Chlorine by-products may have reacted with the microbes in the wine barrels to taint the wine.

Time was given to allow the wineries to install measures to de-chlorinate their supplies.



An alternative was identified to provide unchlorinated water to some wineries. Two parallel pipelines run from the water treatment plant along New York Street west to Princess Street. The vineyards in proximity to the road elected to connect to this main after the council had modified the pipeline to remove any risk of unchlorinated water entering the network.

Three wineries have connected to this pipeline:

- Martinborough
- Ngawaka
- Palliser

The wineries requested new connections for the water and the retention of their existing connections.

- They have agreed to cover the cost of the work for the new connection (using the interest free loan to cover approximately \$2-4,500 each),
- However request that the policy of collecting a capital contribution for the new connections be waived.

The council collects a capital contribution for each new connection or property when the apply. This contribution is held in a reserve to cover the future capital work to upgrade the network or treatment plant when a capacity constraint is identified. This is either a payment for the use of any additional capacity in the network or to cover the cost when an upgrade is required. For example, the new wastewater pipeline in Greytown that is at the capacity limit and needs upgrading to allow the new subdivisions to join. This is currently \$3,249.42 plus GST for a 20mm connection, but this is increased for a larger connection. The wineries received a 32mm connection which is provide 256% larger area with a much higher risk for excess water usage so increased by 2.56 to \$8,318.51 plus GST (3 connections =\$24,995.54 plus GST).

It is proposed that whichever level of contribution is agreed upon, this can be added to the interest free loan for the cost of the work to physically connect to the pipeline to a maximum of \$10,000 per winery. This is consistent with the other wineries who have installed additional treatment or storage to enable them to have a chlorine free water supply post chlorination of the Martinborough water supply.

While the wineries say that they will not use anymore water in comparison to the water already taken from their existing connections, there is increased potential for this to happen. Council do charge for excess usage to prevent an increased water usage. This is only after the fact that we will identify the excess usage.

We could request the wineries agree to monitor their own usage and alert Council to any increased usage throughout the year. We can also ensure more regular meter readings for these properties e.g. quarterly or six monthly to monitor their usage.

## **2.1 Other considerations**

In the updated water management plan, it is identified that water conservation measures will be introduced to decrease the impact of the wineries. Other considerations on water usage are:

- Natural Resources Plan – at low flows restricting water usage to ‘life sustaining’.
- Ruamahanga Whaitua process recommendations for a stop to water take during low flow conditions.
- Climate change impact for longer periods of low flow.

These plans mean that there will be increased pressure on water resources during summer and the wineries should be encouraged to reduce their overall water demand. While there is potentially some provision to keep plants alive, the use of potable water for irrigation is not considered sustainable.

A managed reduction in water demand for the vineyards should be encouraged.

## **3. Conclusion**

It is recommended that Council decline a request for waiving the water connection fee as mandated in the water supply policy, but offer for this to be repaid by way of an interest free loan up to a maximum of \$10,000 per vineyard.

Council may consider not implementing the full pro-rata water (2.56 times) connection fee of \$8,318.51 plus GST if the wineries agree to a reduction in water usage and agree to monitor their usage throughout the year. This could be an alternative water source for irrigation.

Written by: Lawrence Stephenson, Assets and Operation Manager

Reviewed by: Jennie Mitchell, Group Manager Corporate Support

# ASSETS AND SERVICES COMMITTEE

4 SEPTEMBER 2019

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## AGENDA ITEM C1

### INFRASTRUCTURE AND SERVICES REPORT

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#### **Purpose of Report**

To update members on the Infrastructure and Services Group activities.

#### **Recommendations**

Officers recommend that the Committee:

- 1. Receive the Infrastructure and Services Report.*

#### **1. Group Manager highlights**

This month the new roads contract under Ruamahanga Roads was rated number 1 from 31 council contracts for the completion of the works programs achieved. This is a great start to a new contract and aided by the joint work programs and collaborative processes.

Work in transport is continuing the annual contracts and renewals for the coming year to 5 years. This joint programming is envisaged to deliver savings over these works into the future through good programming and logistics.

The wheelie bin roll out in solid waste has been achieved with approximately 60 location issues for the drop off over the whole district. This process has highlighted the need to keep our databases up to date and the variation in property locations to their addresses.

The move to Wellington Water is well underway with the human resources processes underway. Attending the Client Councils Representative meeting highlighted how the contract governance processes work within the Wellington Water Council Controlled Organisation. It not only looked at the issues with the new alliance contract that needed to be resolved it also allowed for knowledge sharing across other areas such as waste and Health and Safety.

Work continues to be done on the manganese removal plant and the associated works for integration into the wastewater system, plant access and modular setup to enable future movement.

## 2. Water supply

*SERVICE LEVEL – Council provides reliable and safe drinking water supplies. Water provided is safe to drink and there is adequate water for urban firefighting.*

### Key Performance Indicators

WATER SUPPLY KEY PERFORMANCE INDICATORS	TARGET 2019/20	COMPLAINTS		INCIDENTS	
		JUL	YTD	JUL	YTD
The average consumption of drinking water per day per resident within the territorial authority	<400 Lt		491		
Compliance with resource consent conditions/water permit conditions to “mainly complying” or better	95%		100%		
Water supply systems comply with Ministry of Health Bacteriological Drinking Water Standards guidelines 2008*	FTN: Yes GYT: Yes MTB: Yes		FTN: Yes GYT: No MTB: Yes		
Water supply systems comply with Ministry of Health Protozoa Drinking Water Standards guidelines 2008	FTN: Yes GYT: Yes MTB: Yes		FTN: Yes GYT: No MTB: Yes		
The total number of complaints received by the local authority about drinking water taste per 1000 connections	<15	0	0	0	0
The total number of complaints received by the local authority about drinking water odour per 1000 connections	<15	0	0	0	0
The total number of complaints received by the local authority about drinking water pressure or flow per 1000 connections	<15	0.49 per 1000 (2 complaints)	0.49 per 1000 (2 complaints)	2	2
The total number of complaints received by the local authority about continuity of supply per 1000 connections	<15	0 per 1000 (0 complaints)	0 per 1000 (0 complaints))	0	0
The total number of complaints received by the local authority about drinking water clarity per 1000 connections	<15	0.24 per 1000 (1 complaints)	0.24 per 1000 (1 complaints)	1	1
Ratepayers and residents satisfied with level of service for water	75%			NRB Survey:	61%
Attendance for urgent call-outs: from the time that the local authority receives notification to the time that service personnel reach the site	< 1 Hr	(5/5) 100%	Median Time 1mins	5	5
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	< 8 Hrs	(5/5) 100%	Median Time 1mins	5	5
Attendance for non-urgent call-outs: from the time that the local authority receives notification to the time that service personnel reach the site	< 2 working days	(18/24) 75%	Median Time 20h 44mins	24	24
Resolution of non-urgent call-outs: from the time that the local authority receives notification to the time that service personnel confirm	< 5 working days	(21/24) 88%	Median Time 24h 27mins	24	24
Fire hydrants tested annually that meet NZ Fire Service Code of Practice	20%	20%	20%		
The % of real water loss from the local authority’s networked reticulation system identified by establishing and measuring night flow	<20%		22%		

The temporary chlorination of the water supply has worked well, with the tests showing a stable chlorine level through the network. Continued monitoring of the reservoirs will evaluate if a booster chlorination is required, as there is period lower chlorine levels. Work is ongoing to address other risks highlighted during the investigation, including backflow risks, connections

for the wineries. The design of the Manganese Removal Plant (MRP) is progressing and an updated layout with more detailed cost estimate for procurement at the end of August.

Featherston (Waiohine) plants operated well during the period. The concrete ring main for the storage area is complete and the lining is due in for early September. The fourth bore is drilled to enable the supply of both Featherston and Greytown. This will need further development to install pump equipment and connecting pipeline. Greytown bore had a fault during an unplanned shut-down which was rectified within 60 minutes.

### 3. Wastewater

*SERVICE LEVEL – Council provides wastewater services that effectively collect and dispose of wastewater. Wastewater does not create any smells, spill or health issues and causes minimal impact on the natural environment.*

#### 3.1 Key Performance Indicators

WASTEWATER KEY PERFORMANCE INDICATORS	TARGET 2019/20	COMPLAINTS		INCIDENTS	
		JUL	YTD	JUL	YTD
Attendance time: from notification to arrival on site	< 1 Hr	6/10 (00%)	Median Time 0h 44min	10	10
Resolution time: from notification to resolution of fault	< 4 Hrs	2/10 (20%)	Median Time 31h 54min	10	10
No. of complaints per 1000 connections received about sewage odour	< 15	1 per 1000 (0.24 complaint)	0.75 per 1000 (3 complaint)	1	1
No. of complaints per 1000 connections received about sewage systems faults	< 15	0	0	0	0
No. of complaints per 1000 connections received about sewage system blockages	< 15	2.44 per 1000 (10 complaint)	2.44 per 1000 (10 complaint)	10	10
No. of complaints per 1000 connections received about the response to issues with sewage	< 15	0	0	0	0
Proportion of urgent waste water service requests responded to within 6 hours of notification	95%	7/10 (70%)	7/10 (70%)	10	10
Number of dry weather sewerage overflows per 1000 connections	<10	0	0	0	0
Ratepayers and resident's satisfaction with wastewater services	57%			NRB survey:	57%
% of resource consent conditions complied with to mainly complying or better*	90%		98%		
No. of abatement notices	<2				0
No. of infringement notices	0				0
No. of enforcement notices	0				0
No. of convictions	0				0

#### 3.2 Consents – Featherston wastewater to land

Further investigations are being organised, a more in-depth investigation of the land treatment area, involving the drilling of 14 additional investigation bores. Further water quality sampling completed to quantify the performance of the treatment plant for pathogens and what treatment may be required to remove the risk to the shallow bore owners. The Featherston plant is operating well against the current consent conditions and would be within the proposed application conditions.

Martinborough irrigation has finished for the season, with the wastewater removed from the Ruamahanga River for 26% of the time in the previous year. The performance is being reviewed for nitrogen removal to maintain the discharge condition.

The Greytown plant has had issues with odours, following a trade waste discharge. The discharge has stopped and mitigation measures are ongoing to restore the ponds back to normal operation. The irrigation to land was commissioned in May ready for operation in the spring. A presentation day on the 19<sup>th</sup> of June went well.

#### 4. Stormwater drainage

*SERVICE LEVEL – Stormwater drains are well operated and maintained by the Council.*

##### Key Performance Indicators

STORMWATER DRAINAGE KEY PERFORMANCE INDICATORS	TARGET 2019/20	COMPLAINTS		INCIDENTS	
		JUL	YTD	JUL	YTD
% of ratepayers and residents satisfied with stormwater drains	59%			NRB survey:	48%
% of urgent (any blockage causing extensive flooding of buildings or other serious flooding) requests for service responded to within 5 hours	95%	0	0	0	0
No. of flooding events	0	0	0	0	0
No. of habitable floors affected per flooding event per 1000 properties connected	0	0	0	0	0
No. of abatement notices	0				
No. of infringement notices	0				
No. of enforcement notices	0				
No. of convictions	0				
Median response time to flooding events (Notification to personnel reaching site in hrs)	3	-	-	0	0
No. of complaints about stormwater per 1000 properties connected	0	0	0	0	0

There were two stormwater blockages reported during the period within the Greytown water race sections.

## 5. Land transport

*SERVICE LEVEL – Roads are maintained to ensure they are safe and comfortable to travel on. Footpaths can be safely used to get around town.*

### 5.1 Key Performance Indicators

LAND TRANSPORT KEY PERFORMANCE INDICATORS	TARGET 2019/20	COMPLAINTS		INCIDENTS	
		JULY	YTD	JULY	YTD
Using the RAMM measurement system, average smooth travel exposure on urban roads to be 85% and rural roads 95% with maximum variation of 5%	95%				
Ratepayers and residents fairly/very satisfied with the roads	80%			NRB Survey:	68%
5% of sealed roads are resealed each year subject to availability of NZTA subsidy	100%				
The pavement condition index as measured by the NZTA pavement integrity index	95%				
The number of crashes causing injuries is reduced	Group and control average				
The number of fatalities and serious injury crashes on the local road network	<7				
Ratepayers and residents are satisfied with footpaths in the district	70%			NRB Survey:	62%
Availability of footpaths on at least one side of the road down the whole street	88%				
Footpath Condition rating 95% compliant with SWDC AMP Standard	95%				
The % of customer service requests relating to roads and footpaths responded to within 48 hours	95%	36/39 (92%)	36/39 (92%)	39	39
Meet annual plan footpath targets	Yes				

### 5.2 Roading Maintenance Ruamahanga Roads – Fulton Hogan

The first month of the Ruamahanga Roads contract working with Carterton District Council to share resources to complete programme works. The approved programme was substantially complete on time and within budget.

Works completed as shown below

- 295 km of roads were inspected and identified faults recorded in RAMM for future programming.
- 10 bridges were inspected and found to be in a tidy condition.
- 152.678 km of unsealed roads were graded
- 1589m<sup>3</sup> of maintenance metal was applied to the unsealed roads
- 2 Cattle stops were installed on Ushers hill on White Rock Road as part of resilience works.
- 17 sealed road potholes were identified and filled.
- 31.1 meters of new and replacement culverts were installed.

Sealed road widening on Johnson Street in Featherston adjacent to the dog run was constructed.

Test pits have been dug and samples sent for testing as part of this year's design for sealed Road Rehabilitation.

Emergency response and initial clean-up occurred on Cape Palliser Road from the DOC station to the lighthouse due to extremely high seas and tidal swell.



Cape Palliser Rd tidal swell damage

Cape Palliser Road debris on carriageway

The drain behind Hart Street in Featherston was cleaned out and regraded to Abbots Creek following resident concerns.



Hart St after



Hart St Before



### 5.3 Other activities

Work is continuing the Tora Farm Settlement Road bridge; the retaining walls have been replaced around the abutment with the piles to be driven.



Pile driving Tora farm Settlement bridge.

A summary of maintenance works identified following the programmed Principal and Engineers inspections is currently being reviewed to determine the need and broken into High, Medium and Low work categories to enable maintenance to be programmed and costed.

Udy Street extension and Settlement Road (off Battersea Rd) have been surveyed for inclusion in the South Wairarapa District Roding network to enable subsidised works to be carried out.

## 6. Amenities

The Amenities team is responsible for the management of Council's parks, reserves and other amenities. The team looks after twelve parks, thirty-one reserves, forty-two buildings, five sports facilities, four cemeteries, eleven public toilets and twenty-two other properties. The Amenities Manager is the contract manager for the City Care parks and reserves contract, and is also responsible for the management of the libraries.

*SERVICE LEVEL – Parks and reserves enhance the quality of life in our communities. Our playgrounds are safe and enjoyed by the community. Clean safe public swimming pools can be accessed in the District. Provision of some low-cost housing for the elderly (or in line with Council policy) in each town. Well maintained hall facilities that are available for the public to book. Public toilets are convenient, clean and safe. There is a wide range of library stock including up to date material.*

## 6.1 Key Performance Indicators

AMENITIES KEY PERFORMANCE INDICATORS	TARGET 2019/20	COMPLAINTS		INCIDENTS	
		MONTH	YTD	MONTH	YTD
Users satisfied with parks and reserves	90%			NRB Survey:	88%
Ratepayers and residents are satisfied with Council playgrounds	85%			NRB Survey:	78%
Council playground equipment that meets national standards	100%				
Council pools comply with NZ swimming pool water testing standards	100%				
Ratepayers and residents' satisfaction with Council swimming pools	68%				73%
Occupancy of pensioner housing	94%			Actual:	
Ratepayers and residents satisfied with town halls	80%			NRB Survey:	71%
Cycle strategy	Developed				
Ratepayers and residents satisfied with public toilet facilities	87%			NRB Survey:	87%
Taking programmes out into the community and providing a wide variety of programmes in the library	>3 per library				
% of ratepayers and residents satisfied with libraries	90%			NRB Survey:	90%

## 6.2 Housing for Seniors

Flat inspections at Westhaven have been completed. The flats are looking tired and in need of a fresh coat of paint both on the interior and exterior.

If the tenants are planning to be away for a period of time they have been asked to let us know and it may be possible for some interior painting to be done in their absence.

## 6.3 Cemeteries

Contractors have completed the ashes wall 4 at the Featherston cemetery.

*Featherston Cemetery Ashes Walls 2 & 4*



Veteran Affairs are in the first stages of installing beams for nine burial plots and 20 in-ground ashes plots at the Featherston cemetery, block 4, services area.

Costs are being obtained for the following at Featherston Cemetery:

1. costs to install two upright, back to back inground ashes beams (32 ashes plots in total) in front of ashes walls 2 & 4
2. beam for 10 burial plots in Block 1, Catholic section
3. four extension beams for 12 plots, in Block 1a

**6.3.1. Purchases of burial plots/niches 16 July to 24 August 2019**

	Greytown	Featherston	Martinborough
Niche			3
In-ground ashes Beam	2		
Burial plot		1	
Services area			
<b>Total</b>	<b>2</b>	<b>1</b>	<b>3</b>

**6.3.2. Ashes interments/burials 16 July to 24 August 2019**

	Greytown	Featherston	Martinborough
Burial	2	1	
Ashes in-ground	1	3	
Ashes wall			
Services Area			
Disinterment			
<b>Total</b>	<b>3</b>	<b>4</b>	<b>0</b>

**6.4 Events**

**6.4.1. Featherston**

*Completed events:*

*Future events:*

**Wairarapa Garden Railway Group** – Indoor Running Day – being held 15 September 2019 at the ANZAC hall

**Featherston Expo** – being held 29 September 2019 at the ANZAC hall

**Kokomai Festival – The Keys are in the Margarine** – being held 14 October 2019 at the ANZAC hall

**6.4.2. Greytown**

*Completed events:*

*Future events:*

**The Greytown Woodside Rail Trail Fun Run** – held every Saturday starting 3 November 2018

**Kokomai Festival – String Bean Puppet Show** – being held 19 October 2019 at the Greytown Town Centre

#### **6.4.3. Martinborough**

*Completed events: Madcaps Show*

*Future events:*

**Jazz in Martinborough** – being held from 29 August to Sunday 1 September 2019 at the Martinborough Town Hall

#### **Waihinga Playground**

Progressing well ahead of completion date at this stage and on budget.

### **7. Library Activity Update**

#### **1. PURPOSE OF THE REPORT**

To update the Committee on the progress and activities of the Wairarapa Library Service.

#### **2. SIGNIFICANCE**

The matters for decision in this report are not considered to be of significance under the Significance and Engagement Policy.

#### **3. STATISTICS AND ACTIVITY**

The statistics in this report refer to the month of July 2019, as data is gathered at the end of each month. At each committee meeting the statistics and activities update will cover all four libraries, for all months since the last meeting.

#### **8. 3.1 Issues and renewals**

**Physical items:**

	<b>Carterton</b>	<b>Featherston</b>	<b>Greytown</b>	<b>Martinborough</b>	<b>Wairarapa Library Service Total</b>
<b>Number of issues and renewals for May 2019</b>	5890	2626	3245	3019	<b>14780</b>
<b>Number of issues and renewals for June 2019</b>	5904	2357	2842	2695	<b>13798</b>
<b>Number of issues and renewals for July 2019</b>	7161	2915	3666	3170	<b>16192</b>

#### **E-books and Audiobooks**

Below are the ebook and audiobook issues for the entire Wairarapa Library Service broken down into months. As you can see Audiobooks show an increase each month.

Wairarapa Library Service	May 2019	June 2019	July 2019
<b>Audiobooks</b>	250	469	539
<b>Ebooks</b>	557	238	309
<b>TOTAL</b>	807	707	848

### 3.2 New Library members

It is great to see our overall figures show a great increase in the people joining our libraries.

	May 2019	June 2019	July 2019
Carterton	29	35	53
Featherston	13	11	26
Greytown	17	23	29
Martinborough	25	17	25
<b>TOTAL</b>	84	86	133

## 8.1

### 3.3 Public Wi-Fi Use (number of times WiFi accessed)

Carterton was one of the first libraries to receive the new hardware from APNK. Completed statistics for all libraries will be available when all have received the new equipment.

	May 2019	June 2019	July 2019
Carterton	518	425	469
Featherston	N/A	N/A	19 (last week of July only)
Greytown	N/A	N/A	0 (upgrade not installed)
Martinborough	N/A	N/A	17 (last week of July only)

### 3.4 Carterton Events

#### Displays

Month	Adult Displays	Junior Displays
May 2019	Nordic Thrillers	May the fourth be with you
		Warning – pirate books!
June 2019	Time for a laugh	Winter Warmers reading programme
July 2019	If you like Lesley Pearse try.....	Family movie night
		Winter Warmers reading programme

#### Events May

- Alpacas with Maracas: On 22 May Carterton library participated in the International Simultaneous Storytime Session. The book read worldwide was “Alpacas with maracas”. Children were able to make their own alpaca mask in the craft activity and petted the live alpacas on display.

#### Events June

- The Winter Warmers reading programme for children has begun this June. There are 117 children registered for the programme.

### Events July

- On the 3rd the library hosted an evening storytime session with children and their teddy bears. The teddies then stayed in the library overnight as a sleepover. Their antics were captured and turned into a story available for the children to pick up with their teddy bears. You can read about their exploits at <https://bit.ly/2ZEVocy>.
- A craft session was held during the school holidays. The crafts were all based around the Winter Warmers Reading Programme, and celebrated Matariki
- As part of the Winter Warmers Reading Programme entertainers “Kirsty and Manu” with their tales and sand art.
- The Code Club celebrated completion of the beginner course. They demonstrated their software coding skills to their parents by running their favourite creations.
- The library held 3 craft sessions for children enrolled in the Carterton District Council School Holiday Programme.

### Other initiatives - May

- Carterton library implemented a technology upgrade, led by APNK (the suppliers of our public access computing). The library now has 2 fixed Chrome stations and 8 portable Chromebooks available for use within the library. The tech upgrade also included a software management upgrade, allowing library staff to better manage computer allocation and printing services. Come in for a demonstration!

### Other initiatives - June

- The annual stocktake was completed in June 2019.

## **3.5 Featherston Events**

### Displays

<b>Month</b>	<b>Adult Displays</b>	<b>Teen Displays</b>
May 2019	'I Can't remember the title, but the colour was blue'	
June 2019	Crochet (for the month)	New Books

### Events - May

- Alpacas with Maracas: On 22 May Featherston library participated in the International Simultaneous Storytime Session. The book read worldwide was “Alpacas with maracas”.
- Booktown, the Library hosted a massive Harry Potter Quiz in the Featherston School Hall, Quiz Master, Juanita McLellan and Sam Wiblin with 10 House Elves from Kuranui College attending the tables.
- The Library hosted ‘Puffin the Architect’ author for a reading and book signing.
- Regular preschool programme attendance is up to 15 children plus parents/caregivers (including 3 Dads)
- Penny attended training on Blue Cloud Analytics to enable her to produce reports.

### Events - June

- Matariki for pre-schoolers. This event was well attended by pre-schoolers who wrapped up warm for a couple of stories. They had glow sticks and explored the Library garden, lit up with lights.
- Preschool Programme topics were: Puddles, Wet Weather, Hungry Caterpillar Birthday, Giraffes, Animals. Book Bugs was attended by average 15 children and caregivers.
- Crochet classes wound up and proved popular.
- The library hosted class visits from St Teresa's School, Takitimu, Remutaka and Wairarapa.
- Thursday nights – 8 Library users, 1 council, 5 crochet class was average for the month.
- Enrolments for Winter Warmers exceeded our total by 46. All 3 schools have registered the entire school. St Teresa's Year 8 and 9 are trialling the online platform for reviews. [iread.co.nz](http://iread.co.nz)
- Maths is Fun is enrolling slowly. The lower age groups have filled, the older ones are filling slowly.
- A mother addressed a recent Book Bugs session about food and eating during the session. She has a child with a life-threatening allergy and must leave if children's lunch boxes come out. The parents were very sympathetic and understanding. However, it poses the question of food in the Library for these sessions.

### Events – July

- Maths is Fun Programme ran in Week 1 of the school holidays. We enrolled 35 and 29 completed
- Week 2, we hosted Lego building every morning, this was very well attended.
- Preschool Programme topics Bugs started back for the new term with the Moon Landing
- Class visits from St Teresa's School, Takitimu, Remutaka on the first day of term. We also had a visit from Featherston School Seniors, the first visit for years! We are forging a great relationship with them through Winter Warmers.
- Thursday nights – 8 Library users, 1 council, 5 crochet class is average for the month.
- Winter Warmers booklets have been checked twice with one class achieving 5 reviews.
- Kirsty Wadsworth & Manu Bennett visited to tell their stories of Matariki and perform some sand art. The show was a magical experience for those who attended. Thanks to the Eastern & Central Community Trust for funding ECREAD'N.
- St Teresa's Year 8 and 9 are trialling the online platform for reviews, we have experienced a couple of issues, which was the idea of the trial, but they are enjoying the challenge. [iread.co.nz](http://iread.co.nz)

Other initiatives

- Featherston extended its hours on a Thursday night until 7.00pm.
- Beginners crochet class with 6 attendees.
- Penny attended ECREAD'N meeting in Masterton to finalise Winter Warmers and to submit the Funding Application to the Eastern & Central Community Trust.
- Seed Bank Collaboration is progressing. A planned craft activity will be held in the next school holidays.
- Our Community Service Worker completed his hours and proved to be a great shelf tidier and had a very willing attitude.

**3.6 Greytown Events**

Events – May

Greytown's opening hours have been extended to include a late night on Tuesday until 7.00pm.

Events – June

- Late nights have been very well-received and higher numbers are anticipated once the weather improves.

**Wairarapa Library Service**

**Feedback form**

We aim to provide you with the highest standards of service and value your views. Help us to improve the Library and our services by completing this comments and suggestions form.

**Your feedback:**

Is this:

A comment?       A suggestion?

A Compliment?       A Complaint?

**Your Feedback:**

Late night at the library a great idea but can you make it till 8pm? 7 is too early to come with the kids (post-dinner etc) and many commuters don't get in till after 7pm.



## Events July

### 3.7 Martinborough Events

#### Displays

Month	Adult Displays	Teen Displays	Junior Displays
June 2019	Moody Winter Reads	New books	New Books
	Today's Picks		June Author Birthdays

#### Events – June

- Book Babies attendance is growing each week – our most recent session was attended by 11 children, plus their parents/caregivers.
- We exceeded our Winter Warmers enrolments by 6 over our allocated spaces.
- We provided “Lego in the Library with Liz” (Stevens). This proved so popular that we will be continuing it through the July school holidays.

#### Events - July

- The Library ran two very popular school holiday competitions – a scavenger hunt which garnered 31 entries. There were 3 prize packs up for grabs (Knucklebone café and the new Martinborough Sweet Shop provided some scrummy prizes!) – one of our regular readers won first prize.
- Our second competition was the classic “Guess the lollies in the Jar”; we had an astounding 128 entries, and one person guessed the EXACT number of lollies (99). Bless his heart, he said he was taking them to school the next day to share with his friends.
- Liz the Lovely Librarian brought in her own lego for children to enjoy on the Saturdays she was working in Martinborough; it was very popular!

#### Other initiatives

- Martinborough has extended its opening hours on a Saturday and is open until 2.00pm.
- Ali attended training on Blue Cloud Analytics to enable her to produce reports.
- Our children’s library beautification project is coming along in leaps and bounds – we have moved some collections around to improve the flow through the area. We were also blessed with the donation of a FABULOUS new seating/shelving unit from Plunket.
- Kathy S. has created a new area primarily for pet books – it is proving very popular!
- Our newly separate Geronimo section and our new Junior non-fiction display:
- Kathy and Victoria spent time at Carterton Library; it was great practice for them to see the Chromebooks in action and to gain experience at another library
- Feedback from our community regarding the removal of rental fees on fiction material (and reduced photocopying charges) has been overwhelmingly positive.
- Our social media presence is becoming more and more prominent in the community - our Facebook page has 589 followers at present. Considering

Martinborough's population of approximately 1,680, we consider this a great achievement.

### **3.8 Update**

8.2 South Wairarapa staff have undertaken training in Interloans, and Blue Cloud Analytics, enabling them to produce reports and examine statistics provided by the library management system. At present, staff are gaining experience using these reports and once they are comfortable and experienced in producing reports, Acquisition training will be rolled out to each of the South Wairarapa libraries. This is a part of the Library Management System, enhancing ordering, invoicing and budget tracking. Kotui has requested that libraries use this process as part of Workflows.

8.3 Carterton and South Wairarapa staff have recently had Enterprise training by Sirsi Dynix so that every library has access to and is able to upload events and information to the Wairarapa Library Service website. This was held at Carterton and was well received by all participants. There will be ongoing training opportunities for all staff.

The three South Wairarapa Libraries have extended their opening times by two hours each. These times afford customers more opportunity to access a WLS library, especially commuters. Currently, the new opening times are for a three-month trial and has been so successful that the new opening times will remain.

- Greytown library is now open on Tuesday 09.00am – 7.00pm
- Featherston library is now open on Thursday 09.00am – 7.00pm
- Martinborough library is now open on Saturday 10.00am – 2.00pm
- Carterton library is open on Saturday 10.00am – 4.00pm

Customer forms and stationery are being adopted for use in every library enhancing consistency of service e.g. all libraries have the same customer Feedback form and staff are being encouraged to get customer feedback on the new opening times. Libraries are being encouraged to share their forms and stationery to ensure best practice and continuity. This will be ongoing.

All libraries have received their new hardware from APNK. Feedback on the new Chromebooks is overwhelmingly positive. Carterton elected to have mobile devices for customers with two fixed stations and the South Wairarapa libraries have fixed stations with one mobile device for staff use. These mobile devices have not yet been delivered yet because of supply problems. They should arrive within the next month.

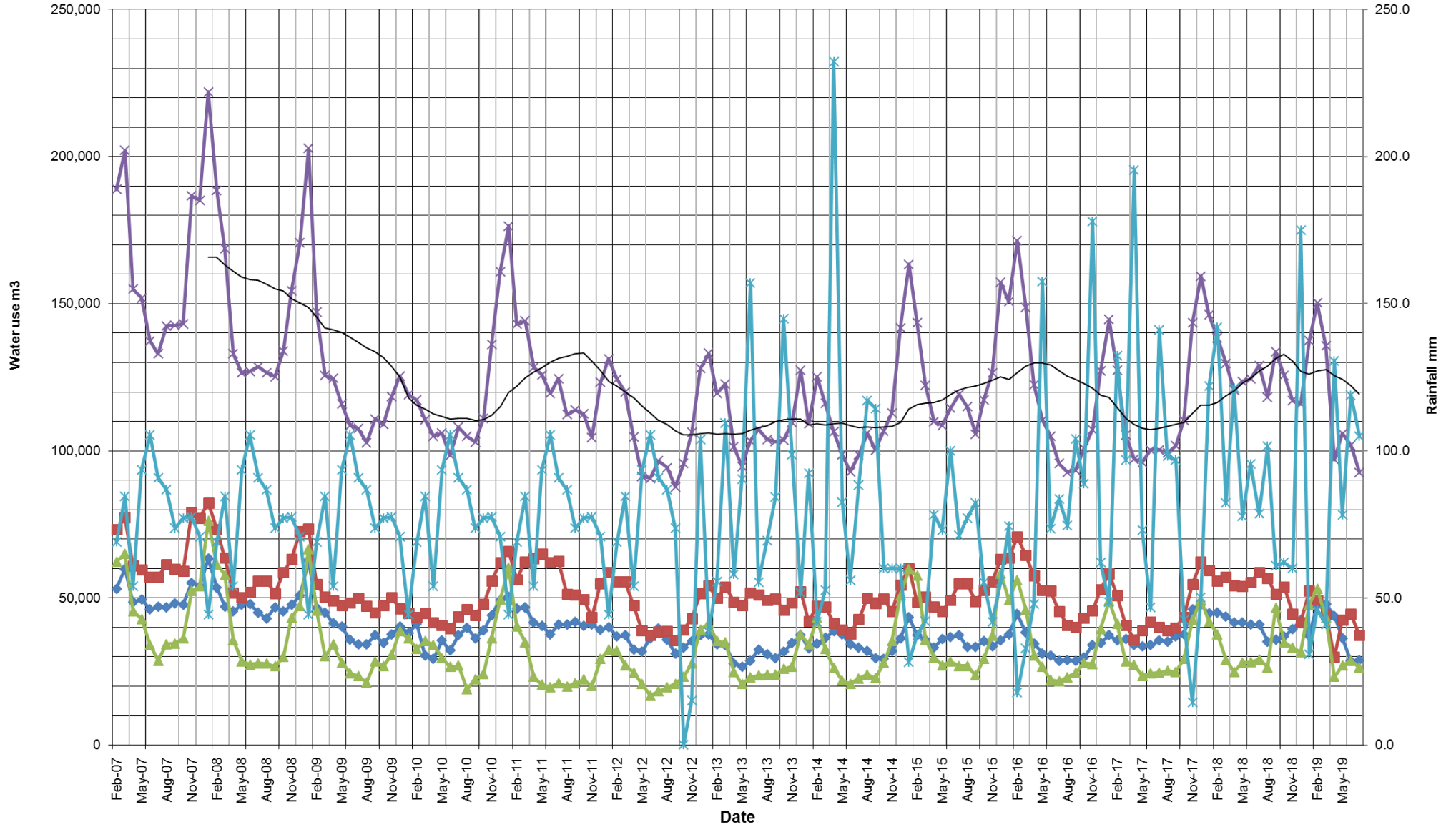
The library service now has a new app. Using the app, our communities no longer need to carry their library card with them as their barcode is accessible directly from the app. In addition to all the standard capabilities, such as browsing the catalogue, reserving items, renewing their books, you can also use the app to scan the ISBN barcode on the back of any book and see if we have it in the Wairarapa library system. Feedback from customers is very positive and, as it has made it possible to check the library stock quickly when undertaking a physical stock buy, feedback from the staff who have used it is also positive.

Contact Officer : Mark Allingham, Group Manager Infrastructure and Services

Reviewed By : Jennie Mitchell, Group Manager Corporate Support

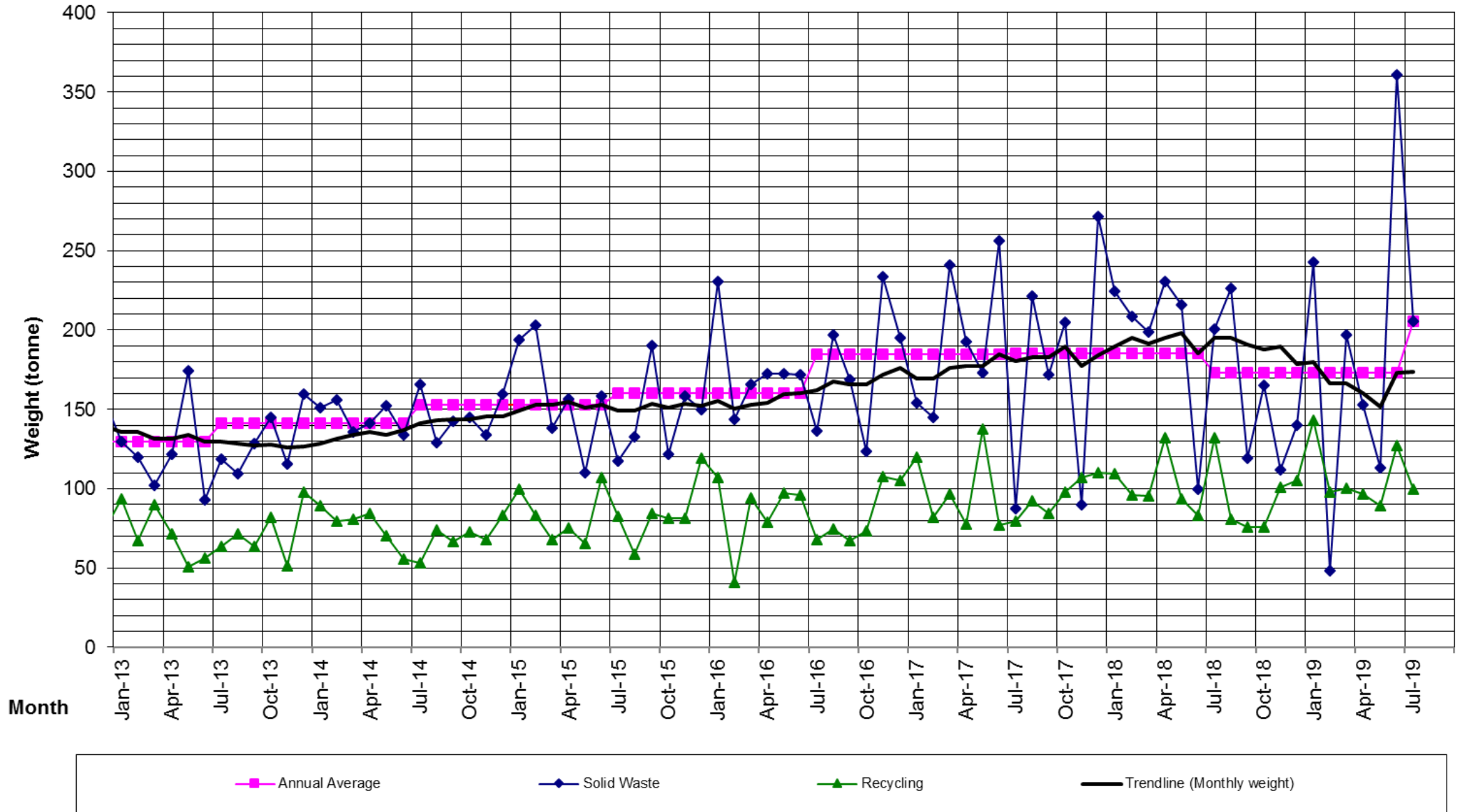
## **Appendix 1 – Monthly water usage**

# Water use South Wairarapa District Council



## **Appendix 2 – Waste exported to Bonny Glen**

Monthly weight of waste transferred to Bonny Glen





# **Appendix 3 – Fulton Hogan Reporting July & August 2019**

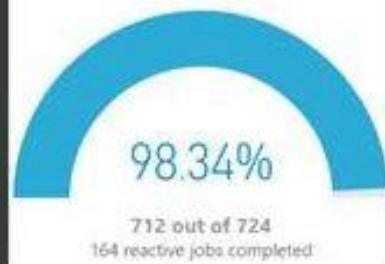


# Monthly Programme - Ruamahunga Roads CDC (2019-2029)

01/07/2019 to 31/07/2019



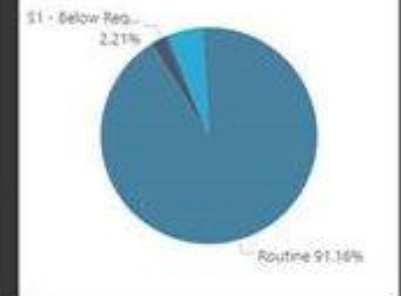
## Programme Achievement



## Jobs By Staff



## Priority Breakdown



## Programmed Jobs



## Programmed Last Month

Fault Description	Jobs	Qty	Units
K&C - Sweep	422	57,378	m
Sign Inspection	132	132	each
Carnageway Inspection	52	128,7...	m
Grading	33	109,4...	m
Edge break	25	261	m
Unsealed Inspection	14	42,997	m
Edge Marker - Replace	10	11	each
Install Edge Marker (Renew)	9	39	each
Bridge Inspection	8	8	each
Post - Leaning	2	2	each
Sign & Support - Entire Replacement	2	1	each
Street Sweeping	2	556	m
Low Shoulder	1	60	m2
Mill & Fill - Deformation	1	10	m2
Post - Paint	1	1	each

## Reactive Completed

Fault Description	Jobs	Qty	Units
Sealed Pothole	38	42	each
Edge Marker - Replace	27	27	each
Carnageway Inspection	24	18,034	m
Edge break	22	91	m
Grading	8	10,965	m
Install Edge Marker (Renew)	5	5	each
Fpath - Driveway Repair	4	41	m2
Dumping/Debris/Debris	3	33	m2
K&C - Repair	3	16	m
Footpath - Renew (Concrete)	2	19	m2
Post - Replace	2	2	each
Railing - Paint	2	5	m
ServiceCover - Uneven	2	2	each
Sight Rail - Repair/Replace	2	11	m
Sign - Accident (Repair/Replace)	2	2	each

## Programme Categories



## Job Details

Dupatch ID	Road	Staff Name
2	ADMIRAL STA...	Darryl Coley
3	AHARUHE SE...	Darryl Coley
4	BARLEY FLAT ...	Darryl Coley
5	BEACH ROAD	Darryl Coley
6	CHESTER PAR...	Darryl Coley
7	MINNET ANAN	Darryl Coley

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# Monthly Programme - Ruamahunga Roads SWDC (2019-2029)

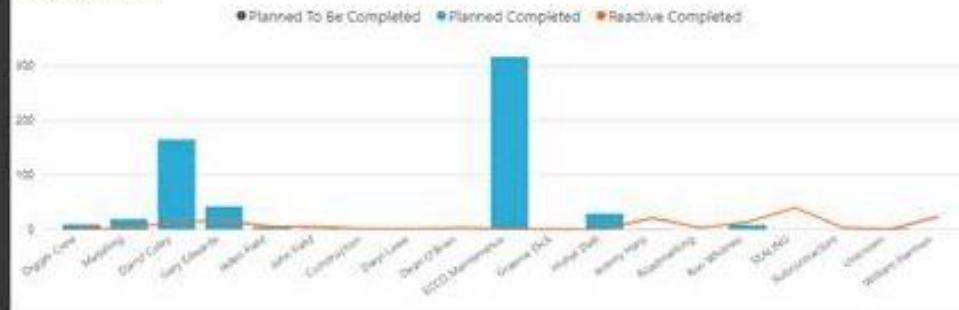
01/07/2019 to 31/07/2019



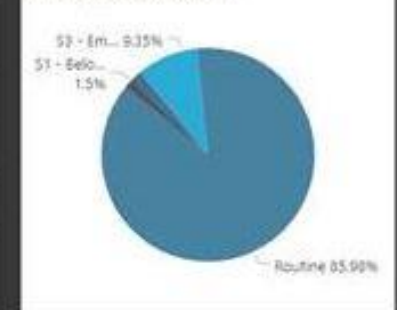
## Programme Achievement



## Jobs By Staff



## Priority Breakdown



## Programmed Jobs



## Programmed Last Month

Fault Description	Jobs	Qty	Units
K&C - Sweep	317	42,941	m
Sign inspection	84	84	each
Carrageway inspection	66	201.3	m
Grading	50	130.9	m
Unsealed inspection	31	80,024	m
Resheeting - Renewal	16	995	m3
Bridge inspection	12	12	each
Culvert - Clear Inlet/Outlet	3	3	one
Resheeting - Maintenance	3	198	m3
Cattle Stop - Maintenance	2	2	each
Ppath - Uneven Surface	2	30	m2
Slip (Emergency)	2	44	m3
Blocked Drainage	1	1	each
Carrageway inspection	1	2,955	m2
Culvert - Maintenance	1	1	m

## Reactive Completed

Fault Description	Jobs	Qty	Units
Grading	29	41,525	m
Level - Uneven Surface	28	81	m2
Carrageway inspection	21	13,293	m
Sealed Pothole	17	17	each
Bridge inspection	14	14	each
Edge break	12	112	m
Road Drop Out (Emergency)	4	4	m3
Light out	3	3	each
Marking - New	3	3	each
Sump Blocked - Clean (including Grate)	3	3	each
Culvert - New	2	20	m
Dumping/Debris/Debris	2	1,618	m2
Post - Replace	2	2	each
Resheeting - Maintenance	2	4,965	m3
Fallen Tree On Rd (Emergency)	1	1	each

## Programme Categories



## Job Details

Dispatch ID	Road	Staff Name
1	KUMENGA RD	Metalling
2	WHITE ROCK ...	Metalling
3	WHAKATOM...	Metalling
136	WHITE ROCK ...	Digger Crew
137	WHITE ROCK ...	Digger Crew
747	WHAKATOM...	Metalling



# Monthly Programme - Ruamahunga Roads CDC (2019-2029)

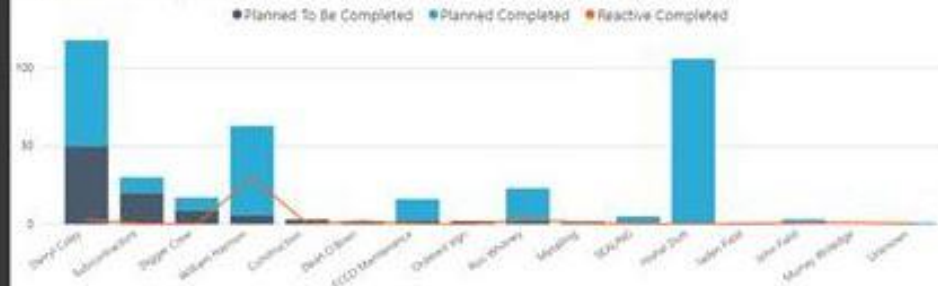
01/08/2019 to 31/08/2019



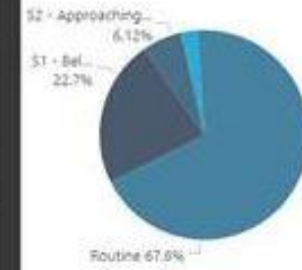
## Programme Achievement



## Current Jobs By Staff



## Priority Breakdown



## Programmed Jobs



## Programmed This Month

Fault Description	Jobs	Qty	Units
Carrageway Inspection	88	144,447	m
Sign Inspection	62	59	each
Sign Inspection	42	0	
Edge Marker - Replace	35	37	each
Light out	29	29	each
Grading	23	35,132	m
Unsealed Inspection	19	56,385	m
K&C - Siveep	16	8,596	m
Sign - Replace	14	15	each
Bridge Inspection	11	11	each
Edge break	5	24	m
Post - Paint	5	6	each
Low Shoulder	4	102	m
Rehab - Granular Overlay	4	5,756	m <sup>2</sup>
Culvert - Clear Inlet/Outlet	3	3	m

## Reactive Completed

Fault Description	Jobs	Qty	Units
Sealed Pothole	13	24	each
Dumping/Debris/Detritus	7	57	m <sup>2</sup>
Dumping/Debris/Detritus	5	13	m <sup>2</sup>
Dumping/Debris/Detritus	3	3	each
Grading	2	1,032	m
Tree Removal	2	13	each
Unsealed Potholes	2	2	each
Culvert - Waterblast	1	10	m
Fallen Tree On Rd (Emergency)	1	1	each
Flooding	1	0	m <sup>2</sup>
Reheating - Maintenance	1	13	m <sup>2</sup>
Sign Inspection	1	1	each
Sump Blocked - Clean (Including Gr...	1	1	each
Vehicle Accident	1	1	each

## Programme Categories

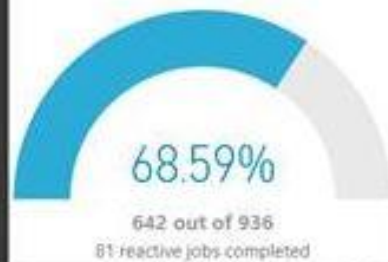


## Job Details

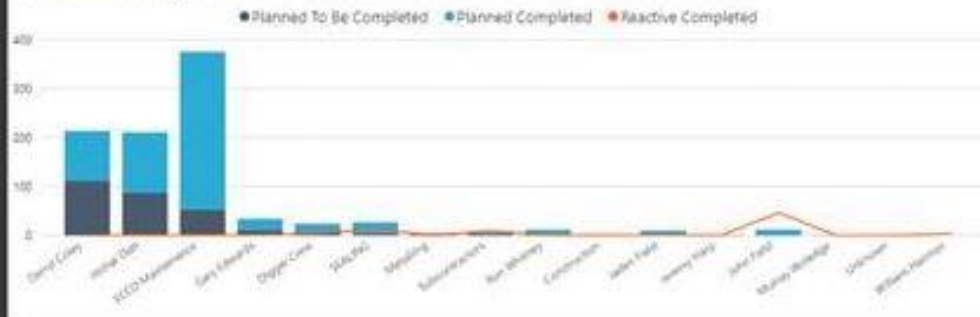
Dispatch ID	Road	Staff Name
234	GLADSTONE ...	Ron Whitney
324	LONGBUSH R...	William Harmon
332	BROOKLYN R...	William Harmon
375	CARTERS LINE	William Harmon
376	CARTERS LINE	William Harmon
424	T&A ROAD R...	William Harmon



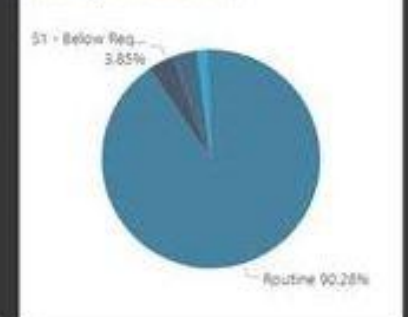
Programme Achievement



Current Jobs By Staff



Priority Breakdown



Programmed Jobs



Programmed This Month

Fault Description	Jobs	Qty	Units
K&C - Sweep	376	51,982 m	
Sign Inspection	272	272 each	
Carriageway Inspection	95	214,183 m	
Grading	46	67,329 m	
Unsealed Inspection	42	76,109 m	
Edge break	22	202 m	
Bridge Inspection	16	16 each	
Culvert - Clear Inlet/Outlet	10	10 one...	
Culvert - New	5	47 m	
Level - Depression	4	42 m2	
Resurfacing - Maintenance	4	405 m3	
High Cut	3	1,500 m	
Sign - Replace	3	5 each	
Culvert - Maintenance	2	16 m	
Culvert - New	2	2 each	

Reactive Completed

Fault Description	Jobs	Qty	Units
Sealed Pothole	20	29 each	
Edge break	10	41 m	
Light out	10	10 each	
Sign and/or Post - New Installation	6	7 each	
Dumping/Debris/Detritus	4	620 m2	
Edge Marker - Install/Upgrade	4	4 each	
Sump Blocked - Clean (including Gr...	4	4 each	
Bridge End Marker - Install/Replace	3	3 each	
Culvert - Clear Inlet/Outlet	3	3 one...	
Digout - Deformation	3	95 m2	
Post - Leaning	3	3 each	
Mowing	2	30 m	
Sight Rail - New	2	29 m	
Dumping/Debris/Detritus	1	1 each	
Grading	1	2,175 m	

Programme Categories



Job Details

Dispatch ID	Road	Staff Name
341	HIKAWERA RD	Darryl Coley
1739	TORA RD	Digger Crew
1740	TORA RD	Digger Crew
1743	TORA RD	Digger Crew
1745	TORA RD	Digger Crew
1746	THE BUSH	Timothy Price





# ASSETS AND SERVICES COMMITTEE

4 SEPTEMBER 2019

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## AGENDA ITEM C2

### ACTION ITEMS REPORT

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#### **Purpose of Report**

To present the Assets and Services Committee with updates on actions and resolutions.

#### **Recommendations**

Officers recommend that the Committee:

1. *Receive the Assets and Services Action Items Report.*

#### **1. Executive Summary**

Action items from recent meetings are presented to the Committee for information. The Chair may ask the Chief Executive for comment and all members may ask the Chief Executive for clarification and information through the Chair.

If the action has been completed between meetings it will be shown as 'actioned' for one meeting and then will be remain in a master register but no longer reported on. Procedural resolutions are not reported on.

#### **2. Appendices**

Appendix 1 - Action Items to 4 September 2019

Contact Officer: Suzanne Clark, Committee Advisor

Reviewed By: Harry Wilson, Chief Executive

# **Appendix 1 – Action Items to 4 September 2019**

Ref #	Raised Date	Action Type	Responsible Manager	Action or Task details	Open	Notes
838	12-Dec-18	Resolution	Mark	COUNCIL RESOLVED (DC2018/178): 1. To receive the Dublin Street West and New York Street West Report. (Moved Cr Colenso/Seconded Cr Vickery) Carried 2. To approve the name Vintners Lane to replace Dublin Street West. (Moved Cr Colenso/Seconded Cr Olds) Carried	Actioned	New road name sign ready, be changed early May 2019, residents have been advised. <b>27/08/19</b> Vintners Lane sign was put up about 3 months ago
81	20-Feb-19	Resolution	Mark	COUNCIL RESOLVED (DC2019/15): 1. To receive the Wastewater Sewer Lateral Replacement Management Report. 2. That lateral renewal up to the boundary where necessary will be undertaken at Council's cost but only when main pipeline renewal is being undertaken (this will be regarded as an operational expense). 3. That council in the meantime will not fund depreciation of private lateral assets. 4. That clearing of obstructions and ensuring the lateral is functional will be carried out within Council land. 5. That private property owners remain responsible for lateral renewal maintenance and renewal as per the bylaw when (2 above) does not apply. 6. That the policy be altered to reflect this change and the bylaw remain unchanged. (Moved Cr Olds/Seconded Cr Craig) Carried Cr Wright voted against the motion. Cr Carter voted against the motion.	Actioned	Policy to to come to A&S meeting on the 24th of July  29/07/19 - The section 3.1.9 of the Bylaw will be amended when the bylaw is reviewed and the resolution is put into practice now. Lateral Renewals being done in conjunction with capital works is currently in practice and able to be done under the current bylaw. 27/08/19 Bylaw and Policy reviewed. Officers feel there is no need to amend as the changes can be done under existing policy
198	3-Apr-19	Resolution	Mark	COUNCIL RESOLVED (DC2019/53): 1. To receive the contract Renewal Report. (Moved Cr Gray/Seconded Cr Vickery) Carried 2. To grant officers the right to extend the Amenities contract by 12 months under	Actioned	Contractor informed, the discussions are to start with CDC post the roading shared service completion in July 19 <b>27/08/19</b> Contractor informed

Ref #	Raised Date	Action Type	Responsible Manager	Action or Task details	Open	Notes
				negotiation. (Moved Cr Olds/Seconded Cr Jephson) Carried		
227	1-May-19	Action	Mayor Napier	Forward the WREMO quarterly report to the Assets and Services Committee	Actioned	24/7/19 Harry to arrange the WREMO quarterly report to be sent to Council and CB chairs. 30/8/19: Annual Report circulated
4	24-Jul-19	Resolution	Harry	ASSETS AND SERVICES COMMITTEE RESOLVED (AS2019/23) to delegate to Cr Olds and the Chief Executive the selection of people to participate in the Water Race Subcommittee. (Moved Cr Wright/Seconded Cr Olds) Carried	Actioned	28/8/19: Appointments made, all applicants notified.
7	24-Jul-19	Action	Mark	Send an email to the Assets and Services Committee explaining what noncompliance with protozoa in Greytown water supply means	Actioned	<b>27/08/2019</b> Email sent 26/06/19
8	24-Jul-19	Action	Mark	Review the Infrastructure and Services Group Report KPI's to ensure that the correct survey results are reported	Actioned	30/8/19: Tables updated.
9	24-Jul-19	Action	Mark	Fix the spelling mistake in the wastewater service level table in the Infrastructure and Services Group Report	Actioned	30/8/19: Spell check run over report
10	24-Jul-19	Action	Mark	Provide to the Assets and Services Committee the end-of-lease date for the new Pain Farm lease, and the planned date for irrigating treated wastewater to Pain Farm	Actioned	27/08/19 Lease expires 30 April 2022 with no right of renewal at this stage
11	24-Jul-19	Action	Mark	Pass on to GWRC a request from the Assets and Services Committee to clean/attend to the drain by the Featherston Railway Station as there have been instances of unacceptable flooding levels in the carpark	Actioned	16/08/19 GRWC has been emailed asking fro maintenance to be programmed and feedback required <b>GWRC Response</b> We are well aware of the issues concerning drainage at Featherston and we are currently working through this, we have already made progress by clearing the drain and we are now looking at reshaping the car park and installing another sump to help the situation, however this is not going to happen overnight. GWRC will keep you updated on any progress.



Ref #	Raised Date	Action Type	Responsible Manager	Action or Task details	Open	Notes
12	24-Jul-19	Action	Mark	Remove the wording 'low cost housing' from the Infrastructure and Services Report and replace with 'affordable housing'	Actioned	30/8/19: This wording is embedded in the Service Level information and will be reviewed for appropriateness as part of the LTP (logged in forward projects)
14	24-Jul-19	Action	Mark	Prepare a report on the Featherston flooding event for the Featherston Community Board, with consideration given to outlining the damage caused and rectification action	Actioned	<b>27/08/2019</b> Report sent to FCB 27/08/19
15	24-Jul-19	Action	Cr Olds, Cr Carter, Mayor Napier	Provide a report to Council on what LGNZ remits were supported by SWDC elected members at the 2019 LGNZ conference and what actions SWDC could take against each of the remits supported	Actioned	
301	21-May-18	Resolution	Mark	COUNCIL RESOLVED (DC2018/63) to support the proposal (option two) of status quo for water storage, but to initiate a working group or workshop to investigate and report on water storage options, including communication and education initiatives, with a view to consulting further in the 19/20 Annual Plan. (Moved Cr Wright/Seconded Cr Carter) Carried	Open	03/09 Mark holding over to next Council meeting  04/10 Research being undertaken - deferred to Jan 19 17/06/19 Since the water issue in Martinborough, the conservation report will be done post chlorination report to look for conservative measures <b>27/08/19</b> Wellington Water Ltd comms producing water conservation plans for MBA - to be templated over the other towns. Committee to be formed after the election
603	19-Sep-18	Resolution	Mark	COUNCIL RESOLVED (DC2018/130): 1. To receive the Cotter Street Recommendation Report. (Moved Cr Jephson/Seconded Cr Wright) Carried 2. To keep the road as an existing two way through road in the meantime. 3. To reduce speeds to 30kms/hr as part of the new speed limit rollout. 4. To review traffic counts in two years to	Open	4/10 Letter and questionnaire sent out to all residents of Cotter Street 7/2/19: A second survey will be mailed to each ratepayer. 12/2 - emailed potential letter to MA for review - Clare 1/5/19: Officers to forward the survey results to GCB members when they become available (A&S) 5/6/19: Transferred to A&S 17/06/19 report going at A&S meeting 19/06

Ref #	Raised Date	Action Type	Responsible Manager	Action or Task details	Open	Notes
				reassess traffic increases. Cr Carter voted against this motion. 5. To carryout preliminary design and cost a footpath on one side of the road for determination by March 2019. 6. That subject to discussion with residents and balancing of residents' views and alignment with national guidelines, further enhance safety by installing additional speed humps. (Moved Cr Wright/Seconded Cr Craig) Carried		<b>16/08/19</b> Letter sent to residents with survey results. 2 speed humps to be installed in October/November 2019
<b>82</b>	20-Feb-19	Resolution	Mark	COUNCIL RESOLVED (DC2019/16): 1. To receive the Sealing of Udy Street Report. (Moved Cr Colenso/Seconded Cr Maynard) Carried 2. That the status of the sealed section of paper road at the north end of Udy Street is confirmed (vested as necessary). 3. That subject to the above and receipt of NZTA subsidised funding, complete the plan to widen and seal the north end of Udy Street. 4. That subject to the above, that the cycle trail is extended to the corner of Udy Street and North Road and joined with the existing trail. (Moved Cr Olds/Seconded Cr Jephson) Carried	Open	Consultant engaged 5/6/19: Transferred to A&S. Process confirmed through NZTA and Linz the chnagnes need to be made in RAMM and the road can be maintatined. <i>"The general consensus is that if Council are taking over a parcel of unformed legal road which has now been formed and you are therefore liable for future maintenance then it should be entered into the RAMM database. That will then add it to the schedule of roads for funding from the NLTF</i> <i>I also understand that that funding is reviewed in 3 yearly cycles so it may be that you do not get any additional funding immediately depending on where that cycle currently is."</i> 17/06/19 Status will change after the new year change over
<b>423</b>	19-Jun-19	Resolution	Mark	ASSETS AND SERVICES RESOLVED (AS2019/12): 1. To receive the Directional Sign Policy for Accommodation, Information and Tourist Attraction Report. 2. That the Blue Signs Policy be amended and then circulated to community board chairs for feedback, and then presented to the Assets and	Open	16/08/19 policy is being redrafted in terms of NZTA Traffic Control Devices Manual to ensure Level of Service meets ONRC requirements for national consistency

Ref #	Raised Date	Action Type	Responsible Manager	Action or Task details	Open	Notes
				Services Committee seeking a recommendation for Council to approve the Policy. (Moved Cornelissen/Seconded Cr Colenso) Carried		
424	19-Jun-19	Action	Mark	Make amendments to the Directional Sign Policy so that consideration is given to generic vs business specific signs, historic business specific signs, making the policy relevant for all towns, consideration and appropriate use of coloured signs (blue and white vs black and yellow vs brown signs), policy exclusion situations, relevant NZTA policies, publication of the approved policy and application form, and a recommended process for managing requests	Open	16/08/19 policy is being redrafted in terms of NZTA Traffic Control Devices Manual to ensure Level of Service meets ONRC requirements for national consistency
13	24-Jul-19	Action	Mark	Provide an email update to the Assets and Services Committee on what stormwater sumps have been inspected and cleaned and the weight of material taken from each sump	Open	

# ASSETS AND SERVICES COMMITTEE

4 SEPTEMBER 2019

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## AGENDA ITEM C3

### LUTRA RECOMMENDATIONS UPDATE

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#### **Purpose of Report**

The purpose of the attached document is to capture the lessons learned from the Martinborough boil water incidents in February and April this year. This document is intended as a valuable tool to help avoid water contamination incidents and improve the response of Council officers to any kind of similar event in the future. The document includes not only what went wrong but also what went well; for this reason, there is not always a corrective action.

#### **Recommendations**

Officers recommend that the Committee:

1. *Receive the Lutra Recommendations Update Report.*

#### **1. Executive Summary**

Attached in Appendix 1 is a progress update on the lessons learned and corrective actions.

Members should consider the report and advise Council officers if further information is required.

#### **2. Appendices**

Appendix 1 – Lutra Recommendations Update

Contact Officer: Lawrence Stephenson

Reviewed By: Jennie Mitchell, Group Manager Corporate Support

# **Appendix 1 – Martinborough Water Incidents Lessons Learned**

## **Martinborough Water Incidents – Lessons Learned**

**Date: 29 August 2019**

**Version: 1.0 FINAL**

### **Purpose of this document**

The purpose of this document is to capture the lessons learned from the Martinborough boil water incidents in February and April this year. This document is intended as a valuable tool to help avoid water contamination incidents and improve the response of Council officers to any kind of similar event in the future. The document includes not only what went wrong but also what went well; for this reason, there is not always a corrective action.

### **Lessons learned approach**

The Lessons Learned are drawn from a range of different inputs including the Havelock North Inquiry, Lutra Technical Report, Regional Public Health Compliance Report and feedback from Martinborough residents, business community and council staff.

Feedback from Martinborough businesses was gathered from a meeting held with the Martinborough Business Association on 11 March and from the community at a meeting held on 8 April.

A chronological approach has been taken to document the lessons as they arose in the lead up and during the boil water incidents, although for the purposes of this report, the two incidents have been reviewed together.

The lessons learned from the Lutra Technical Report are based on the six principles of safe drinking water (Government Inquiry into the Havelock North Drinking Water, 2017). See Appendix 1 for more information.

### **Background – what happened in brief**

Further background information is available at [www.swdc.govt.nz/Martinborough-town-water-situation](http://www.swdc.govt.nz/Martinborough-town-water-situation)

#### ***January 2019***

- Late afternoon on 30 January, routine testing carried out at various sites around the water system showed a positive result for low levels of E. coli at Martinborough School, all other samples were clear.
- Within half an hour, Regional Public Health was contacted to discuss the course of action.
- In consultation with Regional Public Health, the school was advised to use an alternative water source as a precaution.
- Further samples were taken from around the system and sent for testing, and follow-up results received on 10am 31 January showed all the results were clear. This was communicated to the school and in a Facebook response.

**February-April 2019**

- Continued testing showed a second low, positive result at a different site that required further testing.
- In conjunction with Regional Public Health, a Boil Water Notice was issued at approximately 3pm 1 Feb, the day before the Martinborough Fair.
- Investigations into the probable cause identified a malfunction in the UV disinfection system following a power cut as the likely cause.
- The UV disinfection system was fixed so it was working as per the manufacturer's specifications.
- Working with advice from Wellington Water, the town water supply network was systematically checked for potential sources of contamination, and any identified risk points were addressed.
- Flushing of the water supply using water compliant with drinking water standards was completed on 17 February. Subsequent testing of the water for three days following the flush received clear results for E. coli and the boil water notice was lifted on 21 February.
- Throughout the incident, there was ongoing monitoring of illness reporting (particularly gastro-intestinal complaints) in the community and any reports of potential clusters of illness. Regional Public Health and Wairarapa DHB reported no increase in illness levels above the usual levels for the time of year.
- After the boil water notice was lifted, Council increased water sampling and testing, both in terms of the number and frequency of sites, in addition to the online monitoring of the data from the UV disinfection system.
- On 11 March, a meeting for Martinborough businesses was held in collaboration with the Martinborough Business Association for the Council to listen to and understand their specific challenges during the incident and how we can work together to be more prepared for any similar event in the future.
- On 8 April a public meeting was held in the Martinborough Town Hall to answer questions from the public and listen to feedback. A panel with representatives from SWDC, Regional Public Health, Lutra, Wellington Water answered questions from the floor. Approximately 80 people attended including Councillors and the Mayor.

**April 2019**

- On 9 April, preliminary positive results were received for the indicator organism E. coli for two routine water samples taken the day before, one from the reservoir area and the other from Shooting Butts Rd; all other samples taken around the system came back clear of E. coli.
- In consultation with Regional Public Health, a boil water notice was issued at approximately 6pm on 9 April.
- The boil water notice was communicated by letter drop, loud speaker announcements, electronic and corflute message signs, print and radio media, ratepayer email list, the Martinborough Business Association, Lions and sports clubs.
- Wharekaka Rest Home, Martinborough School, kindergartens, day cares and medical centre also received direct communication.
- The water network near the sites where the positive samples were taken was chlorinated on the night of 9 April.
- On 10 April, emergency water bladders were installed to provide alternative, safe water sources at Wharekaka Rest Home, the Square, Rugby Club, Waihinga Centre, Martinborough School and Martinborough Golf Club.
- On 10 April, Council, Lutra, Wellington Water and Regional Public Health started daily incident management meetings via teleconference. Where necessary these meetings were held over weekends as well as on week days.

## Martinborough Water Incidents – Lessons Learned

- On 11 April, the UV disinfection system was ruled out as the cause of contamination in this incident. A systematic risk assessment of the whole network continued, with investigations focusing at the reservoir and on backflow mechanisms to private properties.
- Midday 11 April, results for the second water samples taken before chlorination on the evening of 9 April confirmed the presence of E. coli in the reservoir area, but all other samples taken around the town were clear.
- On 24 April, Councillors approved temporary chlorination of the town’s water supply to take place on 13 May, pending further investigation and collaboration with vineyard and brewery owners
- From 24 April to 13 May, Council worked with vineyard and brewery owners to ensure they could make the necessary arrangements so their products would not be adversely affected by the upcoming chlorination.
- From 6 May to 11 May, the town’s water network was scoured and flushed, a different zone each day, to remove any built up manganese in the biofilm and sediment in the pipes in preparation for chlorination. Letter drops and advertising in local newspapers and on Council website and facebook page alerted residents to the day their area would be flushed and the times they were likely to be without running water while the flushing was completed.
- On 17 May, after three days of clear water testing, and with approval from Regional Public Health, the Boil Water Notice was lifted.
- Throughout the incident, there was ongoing monitoring of illness reporting (particularly gastro-intestinal complaints) in the community and any reports of potential clusters of illness. Regional Public Health and Wairarapa DHB reported no increase in illness levels above the usual levels for the time of year.

### Lessons and corrective actions

#### 1. Lessons learned in the overall management/set-up of the water supply network

ID#	Lesson	Source	Recommended corrective action(s)	Status of corrective action
1.1	There needs to be a review of the importance of drinking water supply within the Council and our contractor organisations	Lutra technical report, Corrective action 1.1	a) Review the findings of the Havelock North Stage 1 and Stage 2 Reports. b) Ensure all staff and contractors involved with the supply of drinking water understand their personal responsibility for the health of the public. c) Ensure that the contracts with suppliers and contractors are set up for 24/7 support. d) Ensure that all staff are adequately trained to	a) Operators are now aware of the summary and it is part of on-going operator training. b) See above c) Operators have that authority, and it will be part of on-going operator training. A standard operating procedure for an emergency has also been developed. d) Operators are aware of this and it will be part of on-going operator training.



Martinborough Water Incidents – Lessons Learned

ID#	Lesson	Source	Recommended corrective action(s)	Status of corrective action
			perform their duties including calibrations.	
1.2	There needs to be a multi-barrier treatment process and protection against contamination of the reticulation system.	Lutra technical report, Corrective action 3.1	Chlorination	<ul style="list-style-type: none"> <li>• The water supply from the bore with the lowest manganese levels is being chlorinated (since 13 May). This is a temporary arrangement as the bore is unlikely to supply enough water to the town over the summer period.</li> <li>• Plans are underway to install a manganese removal plant to enable water from all bores to be chlorinated. (Chlorination of water with manganese content can result in discoloured/brown water).</li> <li>• Community engagement on this is also underway.</li> </ul>
1.3	A systematic assessment of risks throughout the drinking water system needs to be carried out	Lutra technical report, Corrective action 6.1	<p>The risk assessment needs to:</p> <ul style="list-style-type: none"> <li>• Identify source risks, treatment risks and reticulation risks.</li> <li>• Identify mitigation measures for each risk.</li> <li>• Monitor the performance of each barrier.</li> </ul>	<ul style="list-style-type: none"> <li>• The Water Safety Plan has been updated, including a risk assessment to address these points (see Appendix 2)</li> <li>• Monitoring will form part of the permanent chlorination solution.</li> </ul>
1.4	Plant documentation needs to be current and relevant	Lutra technical report, Corrective action 1.2	<ul style="list-style-type: none"> <li>a) Ensure the process schematics (P&amp;IDs) are available and current.</li> <li>b) Ensure the functional description describing plant operation is available and current.</li> <li>c) Provide a detailed operations manual that details the plant functionality, troubleshooting and standard operating procedures for the operators.</li> <li>d) Provide a schedule of maintenance checks, verifications and calibrations for the whole plant.</li> </ul>	<ul style="list-style-type: none"> <li>a) There is a Process and instrumentation diagram (P&amp;ID), this is being updated as part of the permanent solution for Martinborough water supply.</li> <li>b) This is being updated as part of the permanent solution for Martinborough water supply.</li> <li>c) There is a current Operation and Maintenance (O&amp;M) manual. This was kept at the Waiohine Water Treatment Plant, a copy has now been provided for the MBA site.</li> <li>d) This schedule has been developed as part of the Infrastructure Data software system .</li> </ul>

## Martinborough Water Incidents – Lessons Learned

ID#	Lesson	Source	Recommended corrective action(s)	Status of corrective action
1.5	Compliance data must be analysed correctly (by a system that has been through adequate quality assurance) and presented in a way that is easily understood	Lutra technical report, Corrective action 1.3	Use an independent compliance reporting system to report compliance.	A software programme “Infrastructure Data” was purchased in April 2019 and is now being used to monitor compliance.
1.6	Operators, supervisors, and managers need to be sufficiently trained to understand the importance of change on a treatment plant	Lutra technical report, Corrective action 4.1	There needs to be training on: <ul style="list-style-type: none"> <li>• What constitutes a change</li> <li>• What action to take in the event of a change.</li> <li>• Authority of operators to respond to a change.</li> <li>• Understanding the change cannot compromise drinking water safety.</li> </ul>	Standard Operating Procedures are being updated to define ‘what constitutes a change’ <ul style="list-style-type: none"> <li>• Operators are now aware of this and it is part of on-going operator training.</li> <li>• See above</li> <li>• Operators have that authority, and it will be part of on-going operator training.</li> <li>• Operators are aware of this and it will be part of on-going operator training.</li> </ul>
1.7	Review the water quality and water source	Community	Water safety plan updated <ul style="list-style-type: none"> <li>• Review of trends</li> <li>• At least annual analysis of raw water</li> <li>• Review land changes</li> </ul>	<ul style="list-style-type: none"> <li>• Water safety plan updated</li> <li>• Water source being reviewed as part of the permanent water supply solution</li> </ul>

## 2. Lessons learned in the day-to-day operation of the water supply network

ID#	Lesson	Source	Recommended corrective action(s)	Status of corrective action
2.1	Operators, supervisors and managers must understand their drinking water supply and understand the importance of each critical element	Lutra technical report, Corrective action 5.1	They need to understand: <ol style="list-style-type: none"> <li>a) Understanding critical instruments and their function in the water supply.</li> <li>b) Understanding how the plant will respond to upset conditions (e.g. resumption of power after a power cut).</li> <li>c) Eliminate the ability to by-pass the UV treatment process.</li> <li>d) Understanding that a positive <i>E.coli</i> means the water is</li> </ol>	<ol style="list-style-type: none"> <li>a) Operators are aware of this and passed their assessments at the end of March 2019. It will also be part of on-going operator training. The water safety plan has been updated.</li> <li>b) Operators are aware of this and this will be part of on-going operator training.</li> <li>c) This has been actioned and bypass risk minimised.</li> <li>d) This is now known by operators and will be part of on-going operator training.</li> </ol>

Martinborough Water Incidents – Lessons Learned

ID#	Lesson	Source	Recommended corrective action(s)	Status of corrective action
			contaminated with faecal matter.	
2.2	Replace existing outdated control system with a modern programmable logic controller (PLC) and SCADA system	Lutra technical report, Corrective action 1.4	a) Any failure will lead to a plant shutdown and the inability to deliver unsafe drinking water. b) Ensure that as-built documentation is accurate such that troubleshooting problems is not constrained because of lack of information.	a) The SCADA system will be part of the upgrade for the permanent solution for Martinborough water supply. b) Will be part of the upgrade for the permanent solution for Martinborough water supply.
2.3	Ensure that calibrations and verifications are carried out and recorded in accordance with the standards	Lutra technical report, Corrective action 1.5	a) Calibration and verifications are carried out by DWA approved personnel. b) Equipment required for calibrations and verifications is available. c) Calibration and verification records are available for inspection. d) Staff are competent and authorised to carry out calibrations.	a) This is part of on-going training. Note that the operators passed the assessment on 28 March 2019. b) All equipment has been reviewed, provided and calibrated. c) These were available at the Waiohine plant, and a copy will now be available at the Martinborough plant. The new program will also make it available online for contractor managers. d) This is part of on-going training. Note that the operators passed the assessment on 28 <sup>th</sup> March 2019.

**3. Lessons learned in issuing the boil water notices and during the notice periods**

<b>ID#</b>	<b>Lesson</b>	<b>Source</b>	<b>Recommended corrective action(s)</b>	<b>Status of corrective action</b>
3.1	Communication should have gone to the whole community at the first sign of an issue	Community/ Businesses	Review NZDW standards protocol on issuing BWN after the confirmed result	The BWN in April was issued on a preliminary result to the whole community due to the proximity of the previous incident.
3.2	Set up emergency management team and CIMS structure as a first priority	Staff	Develop emergency management plans for different scenarios	An EMT was used daily throughout the second BWN period. Updated emergency management plans being updated for review as part of the Wellington Water change-over from 1 October 2019.
3.3	Look to utilise the skills of staff around the organisation	Staff	Identify council staff with the skills to help and the roles they can take in an emergency situation	To be incorporated as part of the emergency management plan.
3.4	Date and time communication updates, including the original BWN	Staff	N/A	Documented here for future reference
3.5	Identify all stakeholders impacted and interested in the issue and their communication needs	Staff	Develop stakeholder checklist for quick reference in a future emergency	To be incorporated as part of the emergency management plan.
3.6	Have contingency plans in place if key staff are not at work and not available when an emergency occurs, as well as if the emergency response continues over several days	Staff	Keep media lists and other key contacts in a shared folder for anyone to access  Key staff need back-up  A staff shift roster might be required for an ongoing response	To be incorporated as part of the emergency management plan.
3.7	Use all channels of communication available to get the message out	Staff/ community	Use all broadcast media channels – radio, newswires, newspapers  Door-to-door when required  Answer all media queries  Emergency Mobile Alert when the threshold is reached	Documented here for future reference

Martinborough Water Incidents – Lessons Learned

ID#	Lesson	Source	Recommended corrective action(s)	Status of corrective action
			Portable electronic traffic signs Corflute signs Ratepayer email database Group and organisation email lists (see 3.9 below)	
3.8	The community needs to receive regular, plain English updates on the situation, giving a date/time for the next communication	Staff/ Community	N/A	Documented here for future reference
3.9	Know who you can call on to help with door-to-door maildrops	Staff	Have contact details for community groups (including out of hours) <ul style="list-style-type: none"> <li>• Staff volunteers</li> <li>• Fire service</li> <li>• Police</li> <li>• Sports/youth groups</li> <li>• Lions Club etc.</li> </ul>	Work in progress
3.10	Use non-internet-based communication channels, and don't just rely on website and Facebook	Community	Consider developing text database and emergency text system for the District  Develop a list of contact details for organisations and groups who can help get the message out	Text and email systems are being investigated  Work in progress
3.11	Give special consideration to the elderly and vulnerable	Community	Remind people to check on their neighbours  Keep vulnerable persons register up-to-date  Give priority to the needs of medical centres, rest homes, schools and kindergartens	Documented here for future reference
3.12	The emergency water bladders can give the water a rubbery taste	Community	Feedback given to Wellington Water	Documented here for future reference

**4. Lessons learned around trying to find the source of contamination**

<b>ID#</b>	<b>Lesson</b>	<b>Source</b>	<b>Recommended corrective action(s)</b>	<b>Status of corrective action</b>
4.1	Initiate a systematic risk based approach to find the source	Staff	A full assessment from source to tap was undertaken  Develop procedure for incident response in Water safety plan  ID software tracks sample results for better analysis	Update emergency response plan  Water Safety Plan updated  Ongoing testing around network.
4.2	Don't assume there is only one source of contamination	Staff	ID software tracks sample results for better analysis  A full assessment from source to tap was undertaken  Backflow prevention device and policy amended	Ongoing testing around network.

**5. Lessons learned around the flushing of/outages of the water supply network**

<b>ID#</b>	<b>Lesson</b>	<b>Source</b>	<b>Recommended corrective action(s)</b>	<b>Status of corrective action</b>
5.1	Avoid water outages on the weekend if at all possible	Businesses	Noted	Incorporated into existing processes
5.2	Better to carry out town flushing in the daylight for H&S reasons and to assist with location of water valves and tobies	Staff	Noted	Documented here for future reference
5.3	Maintain an accurate map of where the valves and tobies are located	Staff	This is updated in Geospatial Information System	Ongoing verification and maintenance
5.4	Valves need to be confirmed as being in working order on a regular basis	Businesses/Staff	Review the maintenance schedule of the water pipe network	Current contract requires an annual test of all valves at the time of painting.

**6. Lessons learned in lifting the boil water notices**

ID#	Lesson	Source	Recommended corrective action(s)	Status of corrective action
6.1	Use the same channels of communication to notify the BWN has been lifted as those used to notify it.	Staff	N/A	Documented here for future reference
6.2	Keep a record of where all the posters and signs are so they can be removed/replaced with a lifting notice.	Staff	N/A	Documented here for future reference
6.3	Hold a community meeting as soon as possible after any event to debrief and get feedback	Staff	N/A	Documented here for future reference

## Appendices

### **Appendix 1: Correctives actions recommended by Lutra and SWDC response**

After the February incident, the Council commissioned a report by Lutra, an expert water consultancy, entitled ‘Technical Report: Martinborough Water Treatment Plant – Incident Review’. This was an independent report and, as such, SWDC, and other agencies involved in the incident, did not influence its content other than to offer factual corrections to information such as dates, times etc.

This Report describes the incident, identifies potential intervention points that could have helped prevent the incident, and makes recommendations for the future to prevent a repeat incident.

In evaluating the events and actions taken by the Council before and during the February incident, the six principles for safe drinking water, outlined in the Government Inquiry into Havelock North Drinking Water, 2017, were used as a benchmark.

Below shows the corrective actions set out in Lutra’s Technical Report with the Council’s response. The full Lutra report is available on our website at [www.swdc.govt.nz/Martinborough-town-water-situation](http://www.swdc.govt.nz/Martinborough-town-water-situation).

#### **1.1 Principle 1 – A high standard of care must be embraced**

Unsafe drinking water can cause illness, injury or death on a large-scale. All those involved in supplying drinking water (from operators to politically elected representatives) must therefore embrace a high standard of care akin to that applied in the fields of medicine and aviation where the consequences of a failure are similarly detrimental to public health and safety. Vigilance, diligence and competence are minimum requirements and complacency has no place.

Correctives actions	SWDC Response
SWDC should review the importance of drinking water supply within their organisation and those of their contractors specifically:	
<ul style="list-style-type: none"> <li>• Review the findings of the Havelock North Stage 1 and Stage 2 Reports.</li> <li>• Ensure all staff and contractors involved with the supply of drinking water understand their personal responsibility for the health of the public.</li> <li>• Ensure that the contracts with suppliers and contractors are set up for 24/7 support.</li> <li>• Ensure that all staff are adequately trained to perform their duties including calibrations.</li> </ul>	<ul style="list-style-type: none"> <li>• The reports were reviewed by SWDC. The reports have been discussed with the contractors and will continue to with Wellington water and any new operators.</li> <li>• Is part of on-going training.</li> <li>• This is already part of contract, and will continue to form an important part of this.</li> <li>• Is part of on-going training. The operators passed the assessment on 28<sup>th</sup> March.</li> </ul>
Ensure that the plant documentation is current and relevant, specifically:	



Correctives actions	SWDC Response
<ul style="list-style-type: none"> <li>• Ensure the process schematics (P&amp;IDs) are available and current.</li> <li>• Ensure the functional description describing plant operation is available and current.</li> <li>• Provide a detailed operations manual that details the plant functionality, troubleshooting and standard operating procedures for the operators.</li> <li>• Provide a schedule of maintenance checks, verifications and calibrations for the whole plant.</li> </ul>	<ul style="list-style-type: none"> <li>• There is a P&amp;ID, this will be updated as part of the permanent solution for Martinborough water supply.</li> <li>• There is a basic description that will be updated as part of the permanent solution for Martinborough water supply.</li> <li>• There is a current O&amp;M but this is kept at the Waiohine Water Treatment Plant, a copy is available at the site.</li> <li>• This schedule is being developed as part of the Infrastructure Data system that has been purchased.</li> </ul>
<p>Ensure compliance data is analysed correctly (by a system that has been through adequate quality assurance) and presented in a way that is easily understood, specifically:</p>	
<ul style="list-style-type: none"> <li>• Use an independent compliance reporting system to report compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• A programme Infrastructure Data system has been purchased and is being implemented.</li> </ul>
<p>Replace existing outdated control system with a modern Programmable Logic Controller (PLC) and SCADA<sup>1</sup> system, specifically:</p>	
<ul style="list-style-type: none"> <li>• Any failure will lead to a plant shutdown and the inability to deliver unsafe drinking water.</li> <li>• Ensure that as-built documentation is accurate such that troubleshooting problems is not constrained because of lack of information.</li> </ul>	<ul style="list-style-type: none"> <li>• This is planned to be part of the upgrade for the permanent solution for Martinborough water supply.</li> <li>• This is planned to be part of the upgrade for the permanent solution for Martinborough water supply.</li> </ul>
<p>Ensure that calibrations and verifications are carried out and recorded in accordance with the standards, specifically:</p>	
<ul style="list-style-type: none"> <li>• Calibration and verifications are carried out by DWA<sup>2</sup> approved personnel.</li> <li>• Equipment required for calibrations and verifications is available.</li> <li>• Calibration and verification records are available for inspection.</li> <li>• Staff are competent and authorised to carry out calibrations.</li> </ul>	<ul style="list-style-type: none"> <li>• Is part of on-going training, though the operators passed the assessment on 28<sup>th</sup> March.</li> <li>• All equipment has been reviewed and provided.</li> <li>• Is part of on-going training, though the operators passed the assessment on 28<sup>th</sup> March.</li> <li>• Is part of on-going training, though the operators passed the assessment on 28<sup>th</sup> March.</li> </ul>

Figure 1. Actions – Principle 1  
Source: Lutra, SWDC – 2019

## 1.2 Principle 2 – Protection of the source water is of paramount importance

Protection of the source of drinking water provides the first, and most significant, barrier against drinking water contamination and illness. It is of paramount importance that risks to sources of drinking water are understood, managed and addressed appropriately. However, as pathogenic microorganisms are found everywhere, complete protection is impossible and further barriers against contamination are vital.

<sup>1</sup> Supervisory Control And Data Acquisition  
<sup>2</sup> Drinking Water Assessor

Correctives actions	SWDC Response
SWDC should perform a catchment risk assessment and source protection zone study to develop a better understanding of the source risk.	SWDC already has a catchment risk assessment produced by consultants Opus, unfortunately this was not requested prior to the production of the report.

Figure 2. Actions – Principle 2  
Source: Lutra, SWDC – 2019

### 1.3 Principle 3 – Maintain multiple barriers against contamination

Any drinking water system must have, and continuously maintain, robust multiple barriers against contamination appropriate to the level of potential contamination. This is because no single barrier is effective against all sources of contamination and any barrier can fail at any time. Barriers with appropriate capabilities are needed at each of the following levels: source protection; effective treatment; secure distribution; effective monitoring; and effective responses to adverse signals. A ‘source to tap’ approach is required.

Correctives actions	SWDC Response
Chlorination of the supply is essential to provide a robust multi-barrier treatment process and to protect against contamination of the reticulation system. It is noted that dissolved iron and manganese levels in the source water will cause aesthetic issues when chlorine is added to the water. To avoid these an iron and manganese removal process will need to be installed at the water treatment plant.	The temporary chlorination of Martinborough Water supply provides the multiple barrier approach. A multiple barrier approach is planned and will be part of the upgrade for the permanent solution for Martinborough water supply.

Figure 3. Actions – Principle 3  
Source: Lutra, SWDC – 2019

### 1.4 Principle 4 – Change precedes contamination

Contamination is almost always preceded by some kind of change and change must never be ignored. Sudden or extreme changes in water quality, flow or environmental conditions (for example, heavy rainfall, flooding, earthquakes) should arouse particular suspicion that drinking water might become contaminated. Change of any kind (for example, personnel, governance, equipment) should be monitored and responded to with due diligence.

Correctives actions	SWDC Response
Ensure operators, supervisors, and managers are sufficiently trained to understand the importance of change on a treatment plant, specifically:	
<ul style="list-style-type: none"> <li>• What constitutes a change.</li> <li>• What action to take in the event of a change.</li> <li>• Authority of operators to respond to a change.</li> <li>• Understanding the change cannot compromise drinking water safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Is part of on-going operator training in conjunction with Wellington Water</li> <li>• Operators have that authority, but it is part of on-going operator training in conjunction with Wellington Water</li> <li>• Part of on-going operator training in conjunction with Wellington Water</li> </ul>

Figure 4. Actions – Principle 4  
Source: Lutra, SWDC – 2019

### 1.5 Principle 5 – Suppliers must own the safety of drinking water

Drinking water suppliers must maintain a personal sense of responsibility and dedication to providing consumers with safe water. Knowledgeable, experienced, committed and responsive personnel provide the best assurance of safe drinking water. The personnel, and drinking water supply system, must be able to respond quickly and effectively to adverse monitoring signals. This requires commitment from the highest level of the organisation and accountability by all those with responsibility for drinking water.

Correctives actions	SWDC Response
Operators, supervisors and managers must understand their drinking water supply and understand the importance of each critical element, specifically:	
<ul style="list-style-type: none"> <li>• Understanding critical instruments and their function in the water supply.</li> <li>• Understanding how the plant will respond to upset conditions (e.g. resumption of power after a power cut).</li> <li>• Eliminate the ability to by-pass the UV treatment process.</li> <li>• Understanding that a positive <i>E. coli</i> means the water is contaminated with faecal matter.</li> </ul>	<ul style="list-style-type: none"> <li>• This is part of on-going operator training in conjunction with Wellington Water. The water safety plan has been updated in July 2019.</li> <li>• This is part of on-going operator training in conjunction with Wellington Water.</li> <li>• This has been actioned and bypass risk minimised. This will also be addressed in permanent solution.</li> <li>• This is part of on-going operator training in conjunction with Wellington Water.</li> </ul>

Figure 5. Actions – Principle 5

Source: Lutra, SWDC – 2019

### 1.6 Principle 6 – Apply a preventative risk management approach

A preventive risk management approach provides the best protection against waterborne illness. Once contamination is detected, contaminated water may already have been consumed and illness may already have occurred. Accordingly, the focus must always be on preventing contamination. This requires systematic assessment of risks throughout a drinking water supply from source to tap; identification of ways these risks can be managed; and control measures implemented to ensure that management is occurring properly. Adequate monitoring of the performance of each barrier is essential. Each supplier’s risk management approach should be recorded in a living WSP which is utilised on a day to day basis.

Correctives actions	SWDC Response
Undertake a systematic assessment of risks throughout the drinking water system, specifically:	
<ul style="list-style-type: none"> <li>• Identify source risks, treatment risks and reticulation risks.</li> <li>• Identify mitigation measures for each risk.</li> <li>• Monitor the performance of each barrier.</li> </ul>	<ul style="list-style-type: none"> <li>• The water safety plan has been updated in July.</li> <li>• The water safety plan has been updated in July.</li> <li>• The water safety plan has been updated in July and the monitoring will form part of the permanent solution.</li> </ul>

Figure 6. Actions – Principle 6

Source: Lutra, SWDC – 2019

## Appendix 2 - Water Safety Plan Extract

A Water Safety Plan is a legal requirement as part of the New Zealand Drinking Water Standards. The Plan describes the water network and identifies critical control points, risks, and planned improvements to mitigate the risks.

The below is an extract from the Water Safety Plan. The complete Plan is available on request.

### 1.7 Barriers to contamination

Process performance criteria at the operational monitoring point:		Correction if performance criteria are not met:
<b>GROUND WATER SOURCE - BORES</b>		
Bore or bore pump failure may result in a loss of source water for the supply. Infiltration of surface water into the bores can compromise water quality. <u>Controls:</u> Maintaining the integrity of bore heads, restricting activities in the immediate area, exclusion of stock from bore-head area. Monitoring land use in catchment. Monitoring of bore levels and turbidity.		
Target:	<ul style="list-style-type: none"> <li>• Turbidity &lt; 1.0 NTU</li> <li>• Flow &lt; 20L/s from each bore</li> </ul>	<ul style="list-style-type: none"> <li>• Operator to check and adjust flows from each bore based on weather conditions / demand. Check UVT and raw water quality</li> </ul>
Action Limits:	<ul style="list-style-type: none"> <li>• Turbidity: &gt;0.9 NTU</li> <li>• UV transmittance equals 90% minimum value for 3 min</li> </ul>	<ul style="list-style-type: none"> <li>• SCADA Shuts down bore pumps. Alarm raised</li> <li>• Duty Operator to respond to alarm on-site or dial-in to SCADA system</li> </ul>
Critical Limits:	<ul style="list-style-type: none"> <li>• Turbidity &gt; 1.0 NTU (&gt;3min)</li> <li>• Flow exceeds 253m<sup>3</sup>/h for 3 min</li> <li>• transmittance is less 89% for 3 min</li> </ul>	<ul style="list-style-type: none"> <li>• SCADA shuts plant down. Alarm raised</li> <li>• Duty Operator to respond to alarm and attend site</li> </ul>
<b>UV DISINFECTION</b>		
Failure of the reactors results in a lack of control of microorganisms. <u>Controls:</u> Monthly validation of the UVI sensors to ensure accurate and adequate UV dose, servicing and maintenance as per manufacturers specifications. Monitoring of water quality such as turbidity and UVT.		
Target:	<ul style="list-style-type: none"> <li>• UV dose: &lt;45mJ/cm<sup>2</sup> at &lt; 222 m<sup>3</sup>/h</li> <li>• Turbidity &lt; 1.0 NTU</li> </ul>	<ul style="list-style-type: none"> <li>• Operator to check UV feed operating normally and adjust flows from each bores based on weather conditions/ demand. Perform reactor sensor and lamp checks during routine checking procedures. Check UVT and raw water quality</li> </ul>
Action Limits:	<ul style="list-style-type: none"> <li>• UV dose: &lt;45mJ/cm<sup>2</sup> at 222m<sup>3</sup>/h</li> <li>• Turbidity: &gt;0.9 NTU</li> <li>• UV flow equals the maximum flow rate 230m<sup>3</sup>/h for 3 min</li> <li>• UV transmittance equals 90% minimum value for 3 min</li> <li>• UV Controller Alarm (instant)</li> </ul>	<ul style="list-style-type: none"> <li>• SCADA Shuts down bore pumps. Alarm raised</li> <li>• Duty Operator to respond to alarm on-site or dial-in to SCADA system</li> </ul>
Critical Limits:	<ul style="list-style-type: none"> <li>• UV dose: &lt;45 mJ/cm<sup>2</sup> at 160m<sup>3</sup>/h, or &lt;66 mJ/cm<sup>2</sup> at 230m<sup>3</sup>/h</li> <li>• Turbidity &gt; 1.0 NTU (&gt;3min)</li> <li>• UV unit alarm is active</li> <li>• Flow exceeds 253m<sup>3</sup>/h for 3 min</li> <li>• transmittance is less 89% for 3 min</li> </ul>	<ul style="list-style-type: none"> <li>• SCADA shuts plant down. Alarm raised</li> <li>• Duty Operator to respond to alarm and attend site</li> </ul>
<b>CHLORINATION DISINFECTION</b>		

Process performance criteria at the operational monitoring point:		Correction if performance criteria are not met:
<p>Failure will result in a lack of bacterial and viral control.                      Over-dosing may exceed chemical MAV. Under-dosing may cause a risk of backflow contamination and loss of residual disinfection.  <u>Controls:</u> Online monitoring of chlorine levels. Monthly calibrations of dosing control equipment. Daily verification of readings.</p>		
Target:	<ul style="list-style-type: none"> <li>• FAC<sup>3</sup>: 0.5 to 0.8 mg/L</li> <li>• pH: 7 to 7.5</li> <li>• Turbidity &lt; 1.0 NTU</li> </ul>	<ul style="list-style-type: none"> <li>• Operator to monitor chlorine residuals at the end of the distribution zones and adjust the chlorine dosing systems</li> </ul>
Action Limits:	<ul style="list-style-type: none"> <li>• FAC: &lt; 0.4 mg/L (&gt; 15 m) &gt; 1.2 mg/L (&gt; 1 h)</li> <li>• pH: &gt; 7.8 (&gt; 1 h)</li> <li>• Turbidity: &gt;0.9 NTU</li> </ul>	<ul style="list-style-type: none"> <li>• SCADA shuts plant down. Alarm raised</li> <li>• Duty Operator to respond by adjusting dosing to within targets</li> <li>• Duty Operator to notify Operations Manager</li> </ul>
Critical Limits:	<ul style="list-style-type: none"> <li>• FAC: &lt; 0.3 mg/L (&gt; 10 m) &gt; 1.8 mg/L (&gt; 1 h)</li> <li>• pH: &gt; 8.0 (&gt; 15 m)</li> <li>• Turbidity: &gt;1 NTU (3 min)</li> </ul>	<ul style="list-style-type: none"> <li>• Duty Operator to notify Operations Manager</li> <li>• Operations Manager to notify Assets and Operations Manager and DHB if inadequately disinfected water needs to be supplied or has been supplied</li> <li>• For any of these thresholds excluding high chlorine, the duty operator needs to immediately action:                             <ul style="list-style-type: none"> <li>• Isolate the supply and run off storage until rectified</li> <li>• Determine where the water has travelled to using the flow timetable in the emergency response plan and scour at appropriate places until 0.4 FAC residual exists</li> </ul> </li> <li>• For high chlorine residuals, immediately rectify dosing control</li> </ul>
<b>DISTRIBUTION ZONE</b>		
<p>Possible access point for contamination due to backflow.  <u>Controls:</u> Daily monitoring of chlorine levels and turbidity. Backflow prevention policy.</p>		
<b>TREATED WATER STORAGE</b>		
<p>Possible access point for contamination  <u>Controls:</u> Weekly sanitary inspection of structure and surrounding area. Controlled access. Monitoring of chlorine residual levels.</p>		

Figure 7. Process performance and correction if needed - WSP  
 Source: SWDC – 2019

<sup>3</sup> Free Available Chlorine

### 1.8 Improvement of the Martinborough drinking water supply

Priority	Risk level	Water Supply area	Proposed works	Intended completion date
1	Moderate	Treatment Plant	Installation of Chlorination system at existing treatment site Continuation of temporary chlorination	May 2019
2	Moderate	New York Street West	Construction of a new Treatment building for manganese removal to allow permanent chlorination	2019
3	Medium	New York Street West	Transfer UV Disinfection process and chlorination system to new treatment building	Under review
4	Moderate	Treated Water Storage Reservoirs	Installation of Chlorine Monitor and dose control to maintain Chlorine Residual levels	Under review
5	Moderate	Reticulation	Prepare and implement a council water supply backflow prevention policy which includes preparation of a register of all backflow protection devices and a database of annual testing	Started 2019 – On Going
6	Moderate	Other	Review options for emergency power supplies	2020

Figure 8. Proposed improvements - WSP  
Source: SWDC – 2019

### 1.9 Contingency Plan

Type of Event	Required Contingency Action
Severe turbidity of source water and high turbidity in distribution zone. <u>Indicators:</u> Highly turbid water leaving the treatment plant or complaints from consumers.	<ul style="list-style-type: none"> <li>Cease abstraction while source is turbid and supply from treated water storage</li> <li>Identify which bore turbid water is coming from and abstract water from one of the other bores</li> <li>Check chlorine dosing level increase if residual levels are below 0.5 mg/l within reticulation network.</li> <li>Monitor storage level</li> <li>Monitor source water turbidity</li> <li>If storage is low and water with low turbidity cannot be supplied, advise DWA and issue BWN while problem is resolved.</li> <li>Keep customers informed and advise once regular supply is restored</li> </ul>
E. coli transgression in water in distribution zone <u>Indicators:</u> E. coli transgression reported following routine monitoring.	<ul style="list-style-type: none"> <li>Follow transgression response procedure in DWSNZ</li> <li>Advise DWA</li> <li>Commence daily <i>E. coli</i> testing at the Water Treatment Plant</li> <li>Sample in distribution system</li> <li>Check chlorine dosing level increase if residual levels are below 0.4m g/l within reticulation network</li> <li>Investigate cause, inspect plant and source</li> <li>Take remedial action</li> <li>Continue to sample for <i>E. coli</i> until 3 consecutive samples are free of <i>E. coli</i>.</li> <li>If <i>E. coli</i> is found in repeat samples consult with DWA, intensify remedial action, increase disinfection, consider 'Boil Water' notice, consider alternative supply</li> </ul>

## Martinborough Water Incidents – Lessons Learned

Type of Event	Required Contingency Action
<p>Severe microbiological contamination of source water  <u>Indicators:</u> A contamination event near to the bore-heads may be observed by or reported SWDC staff. May also be indicated by reported illness among consumers or positive <i>E. coli</i> monitoring results.</p>	<p>Issue BWN            Advise DWA            Inspect bore-heads and area around bores to identify source of contamination and rectify problem as quickly as possible            Implement chlorination / Super chlorination            Consider provision of emergency treatment or alternative water supply (e.g. tankers)            Disinfect contaminated reservoir and flush mains            Keep customers informed and advise once regular supply is restored</p>
<p>Chemical contamination of source water  <u>Indicators:</u> A contamination event near to the bore-heads may be observed by or reported to SWDC staff. May also be indicated by reported water quality concerns from consumers (taste, odour, colour) or illness among consumers.</p>	<p>Advise DWA            Assess situation and advise customers regarding use/treatment/disposal of contaminated water            Arrange emergency water supply (tankers) if necessary            Inspect bore-heads and area around bores to identify source of contamination and rectify problem as quickly as possible            Flush contaminated reservoir and mains            Keep customers informed and advise once regular supply is restored</p>

Figure 9. Contingency Plan - WSP  
 Source: SWDC – 2019