SOUTH WAIRARAPA DISTRICT COUNCIL EXTRAORDINARY MEETING

AGENDA – 17 April 2019

Open Section

The meeting will be held in the Supper Room, Waihinga Centre, Texas Street, Martinborough and will commence at 9.00am. The meeting will be held in public (except for any items specifically noted in the agenda as being for public exclusion).

SWDC Affirmation

We pledge that we will faithfully and impartially use our skill, wisdom and judgement throughout discussions and deliberations ahead of us today in order to make responsible and appropriate decisions for the benefit of the South Wairarapa district at large.
We commit individually and as a Council to the principles of integrity and respect, and to upholding the vision and values we have adopted in our Long Term Plan strategic document in order to energise, unify and enrich our district.

A1. Karakia Timitanga

A2. Apologies

A3. Conflicts of interest

A4. 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.

A5. Actions from public participation

A6. Extraordinary business

A7. Notices of motion

B. Decision Reports from Chief Executive and Staff

B1.	Wellington Water	Pages 1-90
B2.	Recommendation from Hearings Committee	Pages 91-96

Public Excluded

Proposed Resolution: *That the public be excluded from the following parts of the proceedings of this meeting, namely:*

C1. Tender Report Contract No. C124101/2019 Roading Contract

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:

Report/General Subject Matter	**Reason for passing this resolution in relation to the matter**	**Ground(s) under Section 48(1) for the passing of this Resolution**
Tender Report Contract No. C124101/2019 Roading Contract	Good reason to withhold exists under section 7(2)(i)	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:

Reason for passing this resolution in relation to the matter	**Ground(s) under Section 48(1) for the passing of this Resolution**
i) to enable any local authority holding the information to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations)	Section 7(2)(i)

SOUTH WAIRARAPA DISTRICT COUNCIL

17 APRIL 2019

AGENDA ITEM B1

WELLINGTON WATER SHAREHOLDING REPORT

Purpose of Report

The purpose of this report is to clarify some points that were raised at the hearing into the Wellington Water Shareholding.

Recommendations

Officers recommend that the Council:

1. *Receive the Wellington Water Shareholding Report.*
2. *Agree to become a shareholder of Wellington Water.*
3. *Not ratify the recommendation from the Hearings Committee 27 March 2019.*

1. Executive Summary

When the proposition of becoming a shareholder in Wellington Water (WWL) was first discussed with Officers, the overwhelming consensus was that this was an opportunity that should not be missed.

The Officers view was that joining WWL would provide resilience, expertise, and a quality of service delivery no other locally available model could ever hope to come close to.

This is still the strong opinion of officers, and is still our recommendation.

The senior leadership team and officers are of the view that this council, our residents, ratepayers, and visitors are at risk, and will continue to be at risk until a structure is in place that provides genuine resilience, expertise, and a quality of service delivery.

The recent events in Martinborough and the findings of the Lutra report have reinforced this view. The Lutra report attached as Appendix 3.

2. Discussion

2.1 The Consultation Process

There were comments at the hearing about the consultation process not being sufficient.

Officers wish to reassure you all that the consultation process met the requirements of the local Government Act and our policies.

One of the key points is that we would not normally enter a statutory consultation process to decide who will provide services, be it for waters, roading, or parks and reserves. This would be a tender process led by officers. If it wasn't for the purchase of the shares in WWL, we would not have needed to consult on using WWL to provide our three water services. It is because we are proposing to join a Council Controlled Organisation (CCO), at we were required to consult.

2.2 Statement of Proposal

S83AA covers the requirements of a statement of proposal:

83AA Summary of information

A summary of the information contained in a statement of proposal must—
(a) be a fair representation of the major matters in the statement of proposal; and
(b) be in a form determined by the local authority; and
(c) indicate where the statement of proposal is available; and
(d) state the period within which persons interested in the proposal may present their views to the local authority.

The Statement of Proposal adequately covered of all the points raised by the submitters. There is no requirement to have all details in the statement of proposal, there is an expectation that those interested will make further enquiry.

2.3 Submissions

At the hearing, many of the statements made by submitters were not factually correct but were not able to be challenged as part of the hearing process. An example of stating locals will lose jobs when this is not the case.

2.4 Consultation with Maori

Since the hearing we have held a hui with the Maori Standing Committee and WWL staff members including the CEO to ensure that we had included them in our conversation. This hui was very well received and the MSC appear to support this proposal. Councillors who are part of the MSC can reinforce this verbally at the meeting.

As noted at the hearing, the MSCwas also an integral part of the decision making process during the 2018/28 Long Term Planning process.

2.5 Shared Services

While shared services are good in theory, they can be extremely difficult in practice. Apart from our Combined District Plan and solid waste contracts which are not true shared service models), the only success has been the roading unit between Carterton (CDC) and SWDC. This was only very recently achieved.

Soon after the hearing we were advised that MDC have gone out to the market for their three waters contracts. They have advised that they have several viable interested parties.

Since the hearing, I met with the other two CEOs about the possibility of a Wairarapa-wide three waters shared service.

The estimated time it would take to get agreement from all elected members to explore this possibility was up to 6 months.

It would be a conversation possibly best left until after the election and new Councillors have a good understanding of three waters issues. It could take up to a year to get to that point.

If we got agreement from Councillors to proceed, an external independent consultancy would do a section 17A review of all three Councils current set ups and recommend a way forward.

This would be a detailed and complex analysis and would take 3-5 months to complete. In light of upcoming expected announcements from central government in the three waters space, the timing of this process needs to be considered. It seems prudent not to spend large amounts of money on consultancy if the government is going to force some change on TAs in the near future.

2.6 Status Quo

The Lutra report clearly indicated that the status quo is not acceptable. If we don't join WWL we would need to look at increasing our internal staffing levels and also negotiate a fair deal with a contractor in a very short space of time.

This is **not** a no cost option and also doesn't provide the robust structure that WWL does.

Neither a more highly resourced status quo nor a Wairarapa wide shared service could be set up and ready to go in the space of three months or provide us with access to 250 experts including engineers, communications, systems and other staff.

As recent events have shown, the fragility of SWDCs current systems need greater expertise to increase the resilience of the supply.

Our small team needs to be on-call and vigilant 24/7/365 days a year. Some staff needed to work 21 days straight some in over 24 hour shifts as a result of the first Martinborough boil water notice. This is not a fair expectation and not the way we wish our staff to work. We have an obligation to do better as good employers.

Without the services available through WWL, SWDC would continue to engage specialist contractors for each project. While this has been the approach for many years it does require a greater SWDC staff involvement to coordinate and causes lack of continuity.

2.7 Contract considerations

Our current three waters contract with City care (CC) expires in October 2019. (Note that CC are a CCO owned by Christchurch City Council (CCC), and set up to return profits to CCC).

This means we could either roll the CC contract over for a further year, or go to the market now for three waters services.

As indicated in the officers reports regarding the Amenities contract, we do not have time to do a full Section 17A review before the end of our current contract.

2.8 Procurement

WWL provides economy of scale in procurement, along with best practice in this area. This should result in lower prices for infrastructure such as irrigators or UV equipment etc.

2.9 Emergency support

As Councillors are aware, unless we chlorinate the Martinborough water, an e-coli/boil water notice event can re-occur at any stage.

With multiple risks in systems such as backflow valves, fire hydrant use etc. having the reassurance of WWL in support gives officers confidence in abnormal events. This has already been shown with their support throughout the two events to date.

Their expert technical and communications advice has been professional and extremely beneficial as part of the incident management team for each event.

As development increases so with the risk of future contamination issues, unless we chlorinate.

2.10 Increased drinking water standards

The government has clearly signalled that they will be increasing compliance standards as a result of the Havelock North event (HNE). This will require increased vigilance, monitoring and reporting and probably increased investment. Without WWL this will put an increased load on or already extremely busy three waters team.

2.11 Depth of expertise

Depth of expertise comes through having planners, ecologists, scientists, engineers etc. contributing to a think tank and producing far greater thought product. This is demonstrated in the constructive conversations on the Martinborough water issues. A challenging validation process where all data and assumptions was disputed until proven with external data could only have been done with a diverse expert panel including experts in waters- communications, engineering, chemistry, bio-chemistry (biofilm), standards and policy. WWL provide all of this expertise inhouse.

2.12 Advocacy

When challenging entities such as Greater Wellington Regional Council, Regional Public Health, drinking water assessor’s etc. council does not have

the expertise to effectively engage. WWL have described to Councillors their relationship with GWRC and have shown the ability to work collaboratively with them to get good results for their shareholder councils. SWDC would very much benefit from this expertise.

2.13 SWOT analysis

Councillors who were able to come to the workshop held with senior WWL staff recall the strengths, weaknesses, opportunities, and threats (SWOT) analysis we did with them. This showed how much more robust our three waters service will be if we join WWL. The SWOT analysis is attached as Appendix 4.

Also attached as Appendix 5 are responses to the perceived threats listed in the SWOT analysis. Most threats listed were perceived threats due to people's misunderstanding of the model, rather than real threats e.g. perception of loss of control or forgotten about (no self-determination).

2.14 Financial Considerations

Many of the submitters were concerned there was no financial analysis in the proposal. This is because the proposal to move to WWL is effectively cost neutral apart from some transition costs to link into their systems and of course the $50,000 for the shares.

The latter is an investment rather than a cost. We get an asset in return for our payment and a seat around the table at the water committee.

The other options – Wairarapa wide shared service or more resourced status quo will involve considerable additional cost to SWDC and therefore to ratepayers. At the end of that process, the model we would get would in no way match the amount of expertise WWL are able to provide with their team of 250 professionals.

2.15 Timing

One question from Councillors is "why the urgency to act now?".

This question came prior to the second MBA e-coli incident.

At the WWL workshop on 10 April 2019, WWL communicated they need a three month timeframe to make this transition and would be keen to complete this by July before we get into pre-election mode. Hence WWL are keen to start the transition immediately.

With the current issues we are facing, officers are also keen to tap into the extensive resources of WWL as soon as possible to assist with the MBA water issues, the corrective actions from the Lutra report and other major projects such as the Featherston wastewater to land consent process.

WWL officers and SWDC officers have done quite a bit of preparation together in workshops already. Both SWDC and WWL have invested considerable time and resources on this proposal.

The other time factor to consider is what the government will come out with later this year. There is a possibility they'll announce the move to 3 to 5 large water entities at which time SWDC may be forced to transition along with a group of other not so willing TAs.

Councillors have an opportunity now to act now and make this move voluntarily and ahead of the pack so we are already part of WWL if that move comes from central government.

3. Recommendation

With the ongoing long term risk to our residents, ratepayers, and visitors, it is our recommendation that the preferred option as set out in the statement of proposal be adopted. That is to join Wellington Water.

If we consider the recommendations of the Lutra report and the comment that we are lucky it wasn't another Havelock North, we need to act now to get access to the wealth of knowledge and experience that WWL has to offer us.

As part of this decision, Councillors need to consider the 6 principles from the Havelock North report which is on page 18 of the Lutra report.

This clearly states the high standard of care that is required of everyone from the operators of the plant to the elected representatives to take all due care to ensure the safety of our residents and visitors.

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.

In light of recent boil water notices in Martinborough and the list of Corrective actions in the Lutra report (Page 22), joining WWL would put us in the best possible position to respond to those corrective actions and to respond quickly.

Based on the feedback we received at the public meeting in Martinborough on 8 April 2019, our residents are asking us to give them this added level of robustness in our systems and we can speed this process up with the help of WWL. Their systems and processes are already set up and working well.

We can benefit from years of established practice which is serving the metropolitan Wellington area very well.

4. Appendices

Appendix 1 – Wellington Water Statement of Proposal

Appendix 2 – Submissions Summary

Appendix 3 - Lutra report

Appendix 4 - SWOT analysis

Appendix 5 – Responses to perceived threats

Contact Officer: Jennie Mitchell, Acting Chief Executive

Appendix 1 – Wellington Water Statement of Proposal

WELLINGTON WATER - STATEMENT OF PROPOSAL TO BECOME A SHAREHOLDER IN A COUNCIL CONTROLLED ORGANISATION

1. Overview

South Wairarapa District Council (SWDC) supplies water services known as "three water services" (drinking water, wastewater, stormwater, and stock water races), to residents of South Wairarapa.

SWDC considers that, while retaining public ownership of three waters infrastructure, and water race infrastructure, there are advantages to managing these infrastructure assets on a network basis through the service delivery options available by becoming a shareholding member of Wellington Water.

In summary, the proposal is:

- SWDC retains ownership of the three waters[1] infrastructure and water race infrastructure.
- SWDC becomes a shareholder in Wellington Water.
- Wellington Water has an independent Board of Directors.
- Each shareholder has an equal right on the "Wellington Water Committee".
- Each council retains a direct relationship with the Wellington Water Committee via Service Level Agreements and Water Committee.
- Most staff currently employed by SWDC who work on three waters and water races will transfer to Wellington Water. These staff will remain operating from SWDC premises.
- Some operational assets will transfer to Wellington Water, but not infrastructure assets.
- SWDC contracts Wellington Water to provide infrastructure management services for its three waters networks, and water races.

[1] Three waters = Drinking water, wastewater and stormwater.

The purpose of this statement is to inform the public and seek feedback on the proposal. Any decision made by SWDC to implement the proposal will, however, be subject to SWDC finalising the details of agreements with Wellington Water.

The feasibility of the proposal has already been tested with the existing shareholders; each of which has expressed support in principle.

2. Have your say

Submissions on this proposal may be made to SWDC and are welcomed.

Submissions must be made in writing and sent either:

- By post to: Wellington Water proposal PO Box 6, Martinborough 5741
- Or by email to: info@swdc.govt.nz

Submissions must be received no later than 4 pm on 15 March 2019.

Any person or organisation who wishes to make a submission has a right to be heard in person by SWDC. Submitters who wish to be heard must request this in their submission.

Every submission:

- Will be acknowledged by SWDC; and
- May be made available to the public, including via SWDC's website.

The Local Government Act 2002 requires SWDC to make all written submissions on this proposal available to the public. This requirement is subject to the provisions of the Local Government Official Information and Meetings Act 1987. If you consider there to be compelling reasons why your details and/or submission should be kept confidential, you should explain this as part of your submission.

TIMELINE DATE	ACTIVITY
20 February 2019	SWDC adopted this statement of proposal and a summary of the information contained in it for consultation
22 February 2019	Consultation commences
15 March 2019	Consultation closes 4pm
27 March 2019	Hearings (if required)
4 April 2019	Council Consideration of proposal

3. Background

South Wairarapa District Council has three waters and water race infrastructural assets located in Featherston, Greytown, Martinborough, and the rural communities of Pirinoa and Lake Ferry. In addition there are stock water races in the vicinity of Greytown and Featherston.

3.1 Drinking Water Supply

The water supply activity goal is:

a) To provide reliable (as possible) and sustainable reticulated water supplies to the townships of Greytown, Featherston and Martinborough.

b) To provide stock water race supply networks from the Tauherenikau and Waiohine Rivers.

c) To encourage conservation of this valuable resource.

In the South Wairarapa district, there are presently two public water supply systems; Greytown (for Greytown and Featherston) and Martinborough, with 3,985 serviced and 279 serviceable connections.

Six sources supply water to the urban populations of Featherston, Greytown and Martinborough. The sources of water are:

- Greytown & Featherston – Waiohine River
- Featherston – Boar Bush Gully Catchment
- Featherston – Tait's Creek Intake Weir
- Greytown Well
- Martinborough – Ruamahanga Wells
- Martinborough – Huangarua
- Pirinoa – river bore

3.2 Stock Water Supply

- Featherston – Tauherenikau River (Longwood Water Race)
- Greytown – Waiohine River (Moroa Water Race)

The Council owns a number of structures and components supplying water including the following:

WATER SUPPLY	
URBAN	NETWORK
Featherston	36km of underground pipes
Greytown	30km of underground pipes
Martinborough	38km of underground pipes
RURAL	NETWORK
Featherston	40km of open race
Greytown	225km of open race

3.3 Wastewater

SWDC's wastewater activity goal is:

a) To collect, treat and dispose of wastewater from the urban areas of Featherston, Greytown, Martinborough and Lake Ferry so as to provide public health protection with minimal effects on the environment.

b) In the South Wairarapa district, there are presently four wastewater systems, to which 4,120 pans are serviced and 269 properties serviceable.

The wastewater schemes are:

- Featherston – Urban.
- Greytown – Urban.
- Martinborough – Urban.
- Lake Ferry – Rural.

SYSTEM	
URBAN	NETWORK
Featherston	25km of underground pipes
Greytown	20km of underground pipes
Martinborough	20km of underground pipes
RURAL	NETWORK
Lake Ferry Settlement	3km underground pipes (nearly 50% rising mains)

3.4 Stormwater

The stormwater activity goal is:

a) To provide and maintain waterways to collect and dispose of excess surface water to protect amenities, reduce flooding, avoid erosion and establish a safe environment.

Stormwater systems are provided in the three towns of Featherston, Martinborough and Greytown.

The primary stormwater system is the system of reticulation pipes, culverts, open drains and access chambers. It is designed to collect stormwater resulting from moderate rainfall and discharge it into watercourses. The primary stormwater system is intended to minimise what is often termed as nuisance flooding.

The secondary stormwater system generally comprises overland flow-paths designed to convey excess floodwater with a minimum of damage when the primary stormwater system is unable to cope. Roads are often used as secondary flow-paths.

More information on SWDC's three waters and water race assets and outputs can be found in the Councils 2018/28 Long Term Plan, and Infrastructure Strategy.

3.5 Wellington Water

Wellington Water is a council-controlled organisation under the Local Government Act 2002. It provides water management services (water supply, wastewater, stormwater) for the shareholding councils of Wellington City Council; Hutt City Council; Upper Hutt City Council; Porirua City Council; and Greater Wellington Regional Council.

This includes providing planning, advice, design, project and operations management, maintenance, and monitoring relating to the assets and services of the water networks of the shareholding councils.

The shareholding councils own the water infrastructure assets that are managed by Wellington Water. They also set all policies and performance objectives that are expected to be met.

Wellington Water has an independent Board of Directors, and political oversight is facilitated by a "Water Committee", which is made up of one elected member from each shareholding council. Each council has equal voting rights.

Wellington Waters promise to its customers, articulated in their Statement of Intent is to:

> *Our promise to our customers (people who live, work, and play in the metropolitan Wellington region) is that we will get water to and from communities in a way they can rely on and trust.*

In addition, Wellington Water have three key outcomes:

- Safe and Healthy water
- Respectful of the environment
- Resilient networks to support our economy

There are currently two classes of shares in Wellington Water - equally held voting (Class A) shares and shares which reflect each shareholder's economic stake in the company (Class B).

SWDC would be issued Class A shares which carried equal voting rights and would be expected to contribute financially by way of the Class B shares.

Wellington Water is not a trading CCO, and thus is not profit driven.

Wellington Water company documentation can be found by searching the companies register at www.business.govt.nz/companies.

3.6 Reasons for this proposal

The objectives of the proposal are to manage SWDC's three waters networks in a way that is optimal in terms of:

- Retaining public ownership of bulk water infrastructure;
- Enabling a strategic approach to, and the integrated management of, service delivery for the SWDC three waters network delivery
- Provision of a higher level of resilience
- Promoting cost-effectiveness over the long term.

Our three waters networks are key assets in relation to the safe and healthy operation of our district. In addition, three waters assets add significantly to the economic wellbeing and resilience of every local authority.

While our three waters assets and operations are managed well, and operate as designed, we have an opportunity to take the operational aspects to the next level, and provide ratepayers, residents, and visitors with a management structure that is world class.

In addition, environmental standards are continually rising, community expectations are increasing, and costs are increasing.

A shareholding in Wellington Water will ensure the best possible outcomes, under the pressure points noted above.

4. Assessment of Options

SWDC has identified three main practicable options, and we analyse these against the objectives outlined in paragraph 3.6 above.

4.1 Assessment of Status Quo

The status quo option has no transactional/establishment costs or uncertainty associated with change. However it is considered sub-optimal for implementing a strategic and long-term integrated approach to three waters management services and will not realise any long term cost efficiencies from scaling up management of water infrastructure and services.

4.2 Assessment of another three waters delivery option

This option is also unlikely to create new opportunities for improving the existing approach to strategic planning and integrated management, or for realising long term cost efficiencies.

Given the costs and complexity of setting up another three waters delivery model, compared to the existing Wellington Water structure, little benefit is seen in this option.

In addition, it is unlikely a cohesive service delivery model of the size and scale could be set up as there are no candidates in close proximity to SWDC to create such an organization, compared to Wellington Water.

4.3 Assessment of becoming a shareholder in Wellington Water

As this is the option recommended by this report, it is described in greater detail in the section below.

This option would enable a more integrated and strategic approach to three waters management at SWDC, in combination with that taken in metropolitan Wellington.

As SWDC would retain asset ownership, budgetary control, and service level setting, the impact of this option in relation to that forecast in the 2018/28 Long Term Plan would be minimal.

The above said, being part of a larger three waters focused entity may also enable some long term cost efficiencies to be achieved resulting from scaling up the management of infrastructure under a single management company.

As with other change options, there will be some transactional/ establishment costs and uncertainty associated with the transfer of employees from SWDC's three waters group to Wellington Water.

Under this option, each council retains a direct relationship with the board of directors via service level agreements and funding agreements.

5. Detailed description of the proposed option – Wellington Water

5.1 Becoming a shareholder in Wellington Water

The proposal is that SWDC is issued with the following shares in Wellington Water.

There are currently two classes of shares in Wellington Water - equally held voting (Class A) shares and shares that reflect each shareholder's economic stake in the company (Class B).

SWDC would be issued Class A shares that carry equal voting rights and would be expected to contribute financially by way of the Class B shares.

Shareholders obligations are set out in a Shareholder Agreement, which all shareholders are required to sign.

The Shareholders Agreement sets out the structures that will govern Wellington Water.

These include the Wellington Water Committee, composition of the Board, Statement of Intent and conduct by the shareholders.

The Wellington Water Committee provides overarching governance in relation to water services in the Wellington region, and to assist shareholders fulfil their obligations. Each shareholder appoints one of their elected members as a committee member.

In relation to the composition of the Board, all directors must be independent directors selected by the Wellington Water Committee, in accordance with the "Board Skills Matrix" included in the Shareholders Agreement.

The business of the company is expected to be conducted in accordance with its Statement of Intent, which must be prepared in accordance with the Local Government Act. As a shareholder, SWDC will have input into the Statement of Intent.

The Statement of Intent is the key operational relationship document, a copy is attached as Appendix 1.

5.2 Entering into a service level agreement with Wellington Water

Wellington Water would manage SWDC's three waters assets in accordance with a service level agreement to be negotiated between the parties.

The service level agreements in place between Wellington Water and each of the cities and regional council are on identical terms, save for certain schedules that are specific to each local authority.

It is anticipated that most of the terms of these existing agreements would be included in SWDC's service level agreement with Wellington Water, but a degree of tailoring is likely to be required.

Wellington Water would manage both operational expenditure and capital projects on behalf of SWDC.

If SWDC becomes a shareholder of Wellington Water, it would similarly be able to elect, pursuant to its service level agreement, which capital projects would be managed by Wellington Water. These capital projects would be recorded in the company's Statement of Intent but would be managed in accordance with the terms of the service level agreement.

A service level agreement between Wellington Water and SWDC would need to be in place prior to the company taking on any management services. This could coincide with the date on which SWDC becomes a shareholder of Wellington Water. However, depending on the timing of issues such as transferring SWDC employees, transitional arrangements may be needed. The day-to-day operational aspects of these service level agreements would be between Wellington Water and the individual shareholding local authorities. Any change to the overarching governance structure should not affect this.

The service level agreement is based around SWDC's publicly consulted 2018/28 Long Term Plan, and as such the community sets the service levels and costs associated with these service levels.

The service level agreements delegate to Wellington Water certain powers that are required to allow Wellington Water the carry out management services appropriately.

5.3 Ongoing Asset Management

SWDC retains ownership of all network infrastructural assets.

SWDC will transfer some operational assets to Wellington Water, for example vehicles.

Management of these assets remains the responsibility of SWDC, and will be managed in conjunction with and advice from Wellington Water.

Operationally, our three waters networks perform well, modelling undertaken indicates our current level of funding is sufficient (inflation adjusted) to maintain our current networks for the very long term.

Network management and capability is all about economies of scale, and while we have the ability to manage our current three waters infrastructural asset base on a day to day basis, future legislative and environmental changes require significant additional resource if we are going to meet these challenges.

In addition, if we were to have any significant issues, our current team would become stretched very quickly, as we have witnessed with the recent E. coli problem.

Wellington Water provides a level of capacity, expertise, and resilience our ratepayers would not be able to achieve otherwise.

5.4 Accountability and monitoring arrangements

Wellington Water will be answerable to SWDC:

- Under the service contract;
- Through the accountability and monitoring obligations that council controlled organisations and local authorities have under the Local Government Act 2002, including Wellington Water's Statement of Intent;
- Through SWDC's role as a shareholder and its ability to influence the appointment of independent directors to the board of Wellington Water.

Each shareholder's power to comment on Wellington Water's draft Statement of Intent will be delegated to its representative on the Water Committee. This will allow the Water Committee to provide comments to Wellington Water in a collective and 'joined-up' way, and in an environment that allows for public input/community views. It is likely that each shareholder's power to approve the final statement of intent or seek a resolution to require the board of Wellington Water to modify its statement of intent will also be delegated to its representative on the Water Committee.

Wellington Water will also be accountable to the public through meetings of the Water Committee, as well as the publication of its statement of intent and half yearly and annual reports.

5.5 Operational Implications

The most significant operational impact will involve the four SWDC employees that make up the three waters group. As SWDC's three water management services will be carried out by Wellington Water, it is anticipated that these roles performed by these staff will be taken over by Wellington Water.

An employment processes needs to be followed, including consultation with affected staff.

While Wellington Water main office is located in Petone, it is anticipated these staff will remain located primarily out of SWDC Martinborough offices.

In terms of contracted services, Wellington Water will take over management of these contracts on SWDC behalf.

While all of the core three waters infrastructural assets, including land, will remain owned by SWDC, some operational assets (such as vehicles and some movable equipment) may be transferred to Wellington Water.

The proposal is not expected to have any impact on:

- The levels of service and asset management practices set out in the Three Waters Asset Management Plans;
- SWDC's aim to ensure that its assets are managed well and all relevant environmental standards, health and safety standards and three waters quality and supply targets are met.
- The proposal will not negatively alter the intended level of service for the three waters outputs as described in the 2018/28 Long Term Plan.

5.6 Relationship with Iwi

Issues of interest to Māori will continue to be addressed through existing Māori representation arrangements on SWDC's Māori Standing Committee

Through these arrangements, Māori values would help to inform the development of SWDC's service level agreement with Wellington Water and any decision SWDC makes in relation to its infrastructure (e.g. investigating a new water source). Service level agreements are anticipated to include a requirement for Wellington Water to engage proactively with iwi on related matters.

6. Financial Implications

This proposal is intended to provide long term financial benefits by SWDC participating in the integration of management of the three waters across the Wellington metropolitan region and South Wairarapa, aligning service delivery and asset planning, and promoting cost effectiveness.

SWDC will incur some costs to implement this proposal, however these are deemed insubstantial. For example, the cost of shareholding will be circa $50,000.

Any other transition costs are expected to be offset by operational efficiencies and other gains from better purchasing power, and from the integrated management of the networks.

7. Consultation

Please let us have your feedback. Details on how to make a submission are set out in the section "Have your say" above.

8. Appendices

Appendix 1 – Wellington Water Statement of Intent

Appendix 1 – Wellington Water Statement of Intent

Wellington Water

Our water, our future

Statement of Intent 2018-2021

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He wairua

He waiora

Tis water, tis water

Water that joins us

Water that necessitates the land

Soul of life

Life forever

Helping communities prosper

Looking after our water now and for the future

The Wellington region is the perfect balance of urban culture and the great outdoors, and when people say "you can't beat Wellington on a good day" they're not wrong.

We're also a growing region. About 412,000 people (10 per cent of New Zealand's population) live, work and play here, and our cities (Wellington, Lower Hutt, Upper Hutt, and Porirua) are forecasting significant growth in population over the next 10 years.

As our communities grow, the need for infrastructure such as roads, power, and water to keep up with change will be vital to our region's economic success.

Here at Wellington Water, our vision is to create excellence in regional water services so communities prosper. Our customers, the residents of the metropolitan Wellington region, use the services we provide: drinking water; wastewater; and stormwater in their homes, businesses, and communities every day. Reliable and affordable access to these services supports the social fabric of our communities.

We deliver our services by focusing on three customer outcomes, which are the driving force behind our day-to-day work, and encompass everything we want to achieve for our customers: safe and healthy water; respect for the environment; and resilient networks that support our economy.

Most of our work is unseen, as the majority of our infrastructure is underground. We rely on sumps, pipes, manholes, pumps, reservoirs, and treatment plants to get safe drinking water to our customers, remove and treat wastewater, and divert and discharge stormwater and treated wastewater into the environment without exposing people to public health hazards, and without impacting the environment. These hidden, yet important pieces of infrastructure connect our customers' homes, businesses, and communities.

The services our three water networks provide are vital to a modern and successful economy, so it's important we look after our water now and for the future.

What brings all this breadth of activity together is a commitment from our people and local iwi to support the region. We want to be a high performing team and will lift our capabilities in a number of areas to help Wellingtonians get the most out of the services we provide, so they can work, live, and play in this beautiful region of ours with confidence.

This document *Our water, our future* sets out our Statement of Intent for the next three years 2018-2021. On the following pages we'll take you through getting water to and from communities, keeping the water running, and how we work as an organisation to make all this happen.

We provide drinking water, wastewater, and stormwater services on behalf of our five client councils – Hutt City, Porirua City, Upper Hutt City, Wellington City, and Greater Wellington Regional Councils.

Getting water to and from communities

Our promise to our customers

Our promise to our customers (people who live, work, and play in the metropolitan Wellington region) is that we will get water to and from communities in a way they can rely on and trust.

We want our customers to be confident the services we provide will help communities to prosper, and we will do this by focusing on our three customer outcomes: safe and healthy water; respect for the environment; and resilient networks that support our economy.

We value our customers, and over time want to understand what they value from us. This means working with our client councils as we engage with customers and put them at the heart of everything we do. It also means listening to what our customers want from the services we provide and incorporating their feedback into our service planning.

SAFE AND HEALTHY WATER

A safe and reliable water supply is essential to public health and the social and economic progress of our region. The recent findings from stage two of the government's Havelock North Inquiry into drinking water contamination has reinforced the importance of providing safe and healthy water. The inquiry proposed six fundamental principles of drinking water safety. We agree with these principles and have indicated how we have integrated them into the services we provide our customers throughout this document.

Principles of drinking water safety:

1. A high standard of care must be embraced.
2. Protection of source water is of paramount importance.
3. Maintain multiple barriers against contamination.
4. Change precedes contamination.
5. Suppliers must own the safety of drinking water.
6. Apply a preventative risk management approach.

Our focus on safe and healthy water means we embrace a high standard of care (Principle 1: A high standard of care must be embraced), and aligns with the United Nations Sustainable Development Goal 6: Clean water and sanitation, which is about availability and sustainable management of water and sanitation.

For us to provide safe drinking water we must protect our water sources and catchments (Principle 2: Protection of source water is of paramount importance) where the rain falls. We are lucky our catchments have all been protected from deforestation and are very nearly pristine. We consider the Waiwhetu Aquifer a regional treasure. Water from the Hutt River/Te Awakairangi flows into the aquifer at Taita, and the aquifer travels down the Hutt Valley and out towards the harbour entrance.

It is important we work with the region to ensure our catchments remain protected and pristine. This is why we have joined forces with Greater Wellington Regional Council and Ministry of Health to map out a management plan to improve the protection of this resource.

All water from the aquifer and catchments is either put through filtration systems or ultraviolet light to kill bacteria and protozoa, and to remove organic material or chemicals and metals. These materials are sent to landfill in the form of sludge. As the water exits the treatment plant we add chlorine as a final protection from the harmful effects of bacteria, which might enter into the system as our water travels through pump stations and pipes before arriving at your house. This is known as a two barrier system (Principle 3: Maintain multiple barriers against contamination) and when combined with catchment protection provides a multi (three) barrier protection system.

Water supplied to our customers' homes and businesses is ultimately removed by our wastewater network. We want our customers to feel confident our wastewater service is reliable, and we will do this by making sure wastewater is treated at our treatment plants and then discharged into the environment. Along the way we want to prevent wastewater from overflowing during dry weather (dry weather overflow), which can pose a health risk to our communities.

RESPECTFUL OF THE ENVIRONMENT

Every day we take water from rivers and streams to supply our residents with drinking water. This water would have otherwise flowed down our rivers and streams into the sea. Being mindful of how we use water is why we built the Stuart Macaskill Lakes to store water during winter when it's plentiful.

Each day we use about 220 litres of water per person per day at home. If we include our commercial customers this number rises to about 330 litres per person. This is a lot of water and is well in excess of other New Zealand communities. We will educate our customers on the value and cost of water, and give them the information they need to be able to reduce water use in their homes.

The water quality of our streams, rivers, harbours, and ocean is deteriorating. In urban areas, leaky pipes can allow wastewater to enter the stormwater system, or overflowing water from stormwater pipes can enter the wastewater network in such quantities our treatment plants can't cope. We will focus on tackling these problems and reduce the likelihood of cross connections occurring, so the water quality of our waterways can improve. The region has set up whaitua (catchment) committees to address these issues, and we will work with the whaitua committees to set water quality limits with the community.

RESILIENT NETWORKS SUPPORT OUR ECONOMY

We want our networks to be resilient, so they can recover and remain functioning after a significant natural event such as an earthquake, landslide, or flooding. We also want our networks to be adaptive to on-going stresses such as the impacts of climate change, sea level rises, and uncertainties such as social and political change.

Our stormwater network is generally designed for rainfall events which occur every five to 10 years. This means the rain that falls, flows into sumps and pipes and is conveyed to rivers and the sea. If the rain is heavier, up to events which occur every 50 years (2 per cent probability) then the stormwater system can't cope. In these circumstances stormwater flows in overland flow-paths, such as low areas, streets, and rivers and creeks. We want heavy rainfall events to occur without impacting adversely on people's homes, businesses, and our roads. Significant rainfall which might occur every 100 years can cause a lot of damage. Our role in these situations is to respond promptly to the issues and get customers and businesses up and running again as quickly as possible.

We will work with our customers to help them build resilience at a household level by encouraging water storage and having a plan for their wastewater, and we will continue to build capability at a community level through our community water stations and our emergency response planning.

CUSTOMER EXPERIENCE

We will make a step change in the way we think about our customers. We will work with our five client councils and contractors to build a shared understanding of what a positive customer experience should look and feel like. We will make changes to the way we work, so we are focused on putting the customer at the heart of everything we do, and we will publish a quarterly customer report that will track our progress.

We will:

- keep our customers informed about the work we are doing at their front gate, and in their community, to improve the services we provide;
- listen to our customers when they contact us, and work with them to make sure we are able to answer their questions, or resolve any complaints they might have; and
- provide practical advice, information, and education to help customers change their behaviours regarding water conservation, protecting the environment, and resilience.

We will discuss our plans with our customer panel, mana whenua partners, and other community groups (i.e. guardian groups), and ask for their input into our strategy and planning on policy and non-asset based ideas.

While doing all of this, we will make sure our customers are aware of the work we are doing, and are kept safe as they go about their day-to-day business. This means customers will not be endangered by any of our services, or the way in which they are provided, and we'll be proactive in anticipating what any potential risks and hazards might be.

Water flowing down our streams and rivers is free in New Zealand. There is no charge for taking this valuable resource. Getting water to and from customers' homes, on the other hand, is very costly. We operate assets (valued at $5.8 billion dollars) to do this job and we spend $120 million dollars annually on keeping them well maintained and operating.

Residential customers pay for their water, wastewater, and stormwater services through their rates, while our business customers pay a volumetric rate according to how much water they use. This cost is not transparent and many customers want more information about how their money is being spent and what value they are receiving. We have agreed with our client councils to calculate the cost of water as a cost per connection. By understanding the cost of water we want our customers to be more aware of their own water use and to gain a better understanding for how much it costs to improve services.

Customers expect us to keep these assets in good condition, so we can deliver the services we promise. Operating and renewing assets (when they get old) is how we do this, and the way we tell our customers this is being maintained for future generations is by the value of our assets. We aim to keep the asset value constant, not reducing, otherwise we are putting additional costs onto future generations, and not spending money on improving beyond what is needed.

STATEMENT OF INTENT MEASURES

The measures we've included in *Our water, our future* (Statement of Intent 2018-21) helps us to achieve our goals over a three year period. The following customer promise measures (page 8) looks at areas impacting our customers the most and includes a trend: reduce; maintain; or improve and targets we will work towards over the coming three years.

Statement of Intent Measure	Trend	Year 1	Year 2	Year 3
1. **Our customers will feel confident the drinking water we provide is safe** because we will maintain 100% compliance with the Drinking Water Standards New Zealand and we will monitor the treated water to make sure there have been no transgressions	Maintain	100% compliance and no transgressions	100% compliance and no transgressions	100% compliance and no transgressions
2. **Our customers will not be exposed to any public health risks** because we will reduce the number of wastewater overflows that happen in public places	Reduce	Baseline set	Target to be confirmed following baseline	Target to be confirmed following baseline
3. **Our customers will feel confident our drinking water service is reliable** because we will maintain the number of hours drinking water supply is available	Maintain	99.6%	99.6%	99.6%
4. **Our customers will feel confident our wastewater service is reliable** because we will improve the number of days the wastewater service is available	Improve	Baseline set	Target to be confirmed following baseline	Target to be confirmed following baseline
5. **Our customers will reduce the amount of water they are using at home** because they have the information they need to be able to make informed decisions and change their behaviours	Reduce	0.5 % reduction per year in gross per capita usage	1% reduction per year in gross per capita usage	1.5 % reduction per year in gross per capita usage
6. **Our customers will be able to enjoy our region's beaches** because we will improve the number of days monitored beaches (between 1 November – 31 March) are not adversely affected by our services and are available for swimming	Improve	95%	96%	97%
7. **Our customers will feel confident the water quality of our waterways are not adversely affected by our services** because we will work with whaitua committees to meet acceptable limits	Improve	Hutt/Wellington Harbour (baseline set) Porirua (complete investment plan to meet minimum requirements)	Hutt/Wellington Harbour (target to be confirmed following baseline) Porirua (Council alignment with investment plan)	Hutt/Wellington Harbour (target to be confirmed following baseline) Porirua (investment plan accepted for the next Long Term Plan)
8. **Our customers' homes and businesses will be protected from flooding** because we will reduce the number of habitable floors impacted adversely by our stormwater service during a 1:100 year flood event	Reduce	1% reduction in modelled areas	1% reduction year on year	1% reduction year on year
9. **Our customers will be resilient in the event of a natural disaster** because we will improve the number of households that have drinking water stored and have a plan for the safe disposal of their wastewater	Improve	5% increase in stored water and awareness for wastewater plan	5% increase in stored water and awareness for wastewater plan	5% increase in stored water and awareness for wastewater plan
10. **Our customers will have positive interactions with us** because we will measure and improve their customer experience satisfaction	Improve	Establish methodology. 70% satisfaction	75% satisfaction	80% satisfaction
11. **Our customers will feel valued** because we will improve their customer experience satisfaction by acknowledging complaints and working to resolve them within acceptable timeframes	Maintain	50% of complaints resolved within 10 days. 95% of complaints resolved within 30 days	50% of complaints resolved within 10 days. 95% of complaints resolved within 30 days	50% of complaints resolved within 10 days. 95% of complaints resolved within 30 days
12. **Our customers will be kept safe** because our work sites will not result in any member of the public suffering a serious injury or hospitalisation	Maintain	Zero incidents reported to us, our supply chain or client councils	Zero incidents reported to us, our supply chain or client councils	Zero incidents reported to us, our supply chain or client councils
13. **Our customers will get a better understanding of where their water rates money is being spent** because we will improve transparency of the cost per connection of our services	Improve	Model developed and tested	Analyse results and explore implications	Increased transparency to rate payers
14. **Our customers will feel confident we are creating value for money** because we will maintain our assets at a sustainable level now and in the future	Maintain	Information gathering	Normalise results across councils and look for a regional proxy	Increased transparency to rate payers

Keeping the water running

Delivering our promise to customers

The infrastructure and assets we use to deliver our services to customers throughout the metropolitan Wellington region generally have a life expectancy of 30-100 years. This means we must take a sophisticated approach to planning to make sure we get the best value from these assets now, and into the future.

To meet the future services challenge, we plan 30-50 years in advance. This means we are on top of the key issues that need to be addressed to deliver future services.

Our Regional Service Plan outlines all the activities we need to do to ensure we provide services now and into the future. It includes:

- 30 year infrastructure plans – these outline the large infrastructure improvements necessary to meet future levels of service.
- 10 year service plans – these lay out the priorities for investment to meet today's and future levels of service.
- Three-year rolling programmes – these contain the activities which are fully planned to be delivered over the next three years.

The Regional Service Plan tells us we need to: investigate issues on the horizon; respond to growth; maintain, operate and renew assets; improve our services; and plan for and respond to emergencies. We will provide more detail about these areas on the following pages.

Our Three Waters Strategy takes a long term (50 year) view of our drinking water, stormwater, and wastewater networks. We've used this strategy to identify a number of issues which could disrupt the three water services we provide. Over the next three years we'll investigate these issues by carrying out future service studies using the better business case approach.

The better business case approach helps our communities understand the problem, and unify all of our client councils to work together to generate and detail individual activities which can be prioritised.

Statement of Intent Measure	Year 1	Year 2	Year 3
15. **We will understand future services needs** by completing the following three studies (carbon reduction; smart services; and resilient networks) and progressing the following strategic cases and business cases: sustainable water supply; receiving water quality; stormwater – flooding; sludge management; and supporting growth (subject to funding)	1 study complete (resilient networks) 3 strategic cases complete	1 study complete (carbon reduction) 3 strategic cases complete	1 study complete (smart services) 4 business cases complete

Responding to growth

Our region is experiencing steady urban growth with the population expected to increase by 21 per cent over the next 30 years. At the same time, many of our water bodies have reached capacity in terms of acceptable water quantity limits (the amount of water we are able to take from water sources).

Critical to providing advice to our client councils on infrastructure needs to support growth are our three waters network models. Without good models we can't understand how current networks perform, and in turn what will happen when growth occurs. Over the next three years we will have all models completed.

We support quality development of properties, which will work today and into the future. For us to achieve this we need developers to provide quality infrastructure that will last. We know developers want clear and easy to understand advice, which means they can progress their developments at their pace. We want developers to feel their needs are being met and are satisfied by the services we offer.

We will work with property developers and our client councils to encourage stormwater neutrality. This means runoff from the site during one or more specific rainfall events must be managed so the post-development peak flows do not exceed the pre-development flows for specific design events. We will also work with developers to encourage water sensitive urban design.

The National Policy Statement for Urban Development Capacity requires our client councils to provide enough development capacity in their long term plans to make sure demand for land development can be met. We will work with councils to ensure they have sufficient information for their submission to the Ministry for the Environment due in December 2018. We will provide input into the region's development capacity assessments, supporting the proposed changes, and we will provide advice on infrastructure changes to meet growth strategies.

Statement of Intent Measure	Year 1	Year 2	Year 3
16. **We will understand how our current networks perform and plan for growth** by completing our three waters network modelling programme	33% complete	66% complete	100% complete
17. **We will build our relationships with developers** by improving their satisfaction with the advice and services we offer	60% of developers are satisfied	65% of developers are satisfied	70% of developers are satisfied
18. **We will make sure future growth is supported** by having well thought out service plans	All capacity assessments provided to respective councils by 31 December 2018	Capacity assessments inform the Regional Service Plan and influence long term plans and infrastructure strategies	Capacity assessments inform the Regional Service Plan and influence long term plans and infrastructure strategies

Operate, maintain and renew

The majority of our annual expenditure ($145 million dollars) goes into operating our treatment plants; delivering services to customers by maintaining the networks; and renewing infrastructure which is worn out. When we do this work we will make sure we meet all of our consent conditions on maintenance and operations activities and capital expenditure projects.

We will use our updated Water Safety Plan to record our risk management approach including the systematic assessment of risks from source to tap; identification of ways these risks can be managed; and control measures implemented to ensure that management is occurring properly. We want our customers to have confidence the drinking water we supply is safe, but also that it is wholesome and an acceptable quality to customers in terms of clarity, taste, and odour.

A by-product of treating water is sludge. We will make sure we keep the water content of sludge to a minimum to reduce odour and manage disposal to landfills.

We aim to achieve a high level of reliability and availability of our three waters networks. If our services are disrupted we want them to be fixed as soon as possible, and we will keep our customers informed, fix the service, and let them know when it is back on.

Should you meet or interact with our people on the job we want them to be friendly, helpful, professional, and prompt with their work. We will embed our customer behaviours throughout our business, so that customer calls are owned end-to-end (including council call centres), and when customers contact us we will make sure we respond to their queries as quickly as possible.

Pipes that break too often, or are predicted to, need to be replaced. By replacing them we avoid breakdowns in the future. We do this through projects which replace a long length of pipe at a time. We want to do this work in a way which reduces inconvenience to traffic and residents. It has to be done, but we will do the work with a minimal level of fuss and impact to our customers.

One of the fundamental reasons we established the consultant panel (and are in the process of establishing the contractor panel) is to generate improved outcomes for customers by creating cost efficiencies and effectiveness through the delivery of capital programmes.

Statement of Intent Measure		Year 1	Year 2	Year 3
19.	**We will meet all environmental consent requirements** by being fully compliant with consent requirements in the delivery of our services	Fully compliant	Fully compliant	Fully compliant
20.	**We will safeguard our drinking water** by completing our Regional Water Safety Plan	Regional Water Safety Plan complete and approved by 1 July 2019. Service delivery improvement plan established	Service delivery improvements arising from the Regional Water Safety Plan implemented	Service delivery improvements arising from the Regional Water Safety Plan implemented
21.	**We will supply wholesome drinking water at an acceptable standard** (taste, clarity, and odour) by maintaining satisfaction	99.5% customer satisfaction	99.5% customer satisfaction	99.5% customer satisfaction
22.	**We will minimise the impact of sludge odour and landfill disposal** by maintaining minimum water content	Landfill bins have a dry-solids content greater than 15%	Landfill bins have a dry-solids content greater than 15%	Landfill bins have a dry-solids content greater than 15%
23.	**We will own customer calls end-to-end (including council call centres) and manage customers' expectations** by embedding our customer behaviours throughout our business	All customer enquiries are tracked and responded to within 60 minutes 95% of customer enquiries raised have been resolved	All customer enquiries are tracked and responded to within 60 minutes 95% of customer enquiries raised have been resolved	All customer enquiries are tracked and responded to within 60 minutes 95% of customer enquiries raised have been resolved
24.	**We will be reliable in the delivery of our renewals and capital works programmes** by completing planned work within timeframes	95-105% of planned work completed	95-105% of planned work completed	95-105% of planned work completed
25.	**We will work with our contractor panel to be cost effective** by decreasing cost per kilometre of laying pipes in real terms (adjusted for inflation)	Benchmark costs	5% reduction year on year	5% reduction year on year

Improving our services

The services our three water networks provide are vital to a modern and successful economy, so it's important we look after them now and for the future. It costs an estimated $40 million each year to improve our services, which is over and above maintaining, operating, and renewing current services. We will work with our Consultancy Panel to improve efficiency by reducing costs and will work to lift our internal capability.

SAFE AND HEALTHY WATER

Our focus in providing safe drinking water will be the improvement plan arising from the completion of our updated regional Water Safety Plan. This will be completed by 30 June 2019, and we will report on progress in the 2018/19 half year report. This will outline all critical risks within our system and what we are doing to address these risks (Principle 6: Apply a preventive risk management approach).

RESPECTFUL OF THE ENVIRONMENT

To make sure we enhance the health of our water ways and ocean, we will reduce wastewater network overflows following heavy rain events, and monitor the impact of stormwater run-off from urban stormwater networks. We will develop a stormwater strategy, work with councils to introduce planning controls to mitigate the effects of stormwater run-off, and we will complete major stormwater projects in Tawa, Porirua central business district and Kilbirnie.

We will complete major wastewater improvements including upgrading the capacity of the Porirua wastewater treatment plant to treat wet weather flows and we will reduce bypasses from the Seaview wastewater treatment plant by increasing storage and moving the overflows away from the Waiwhetu stream.

We will implement catchment management plans for councils and will develop water sensitive urban design guidance, and then work with councils to include this design in their district plans.

The Proposed Natural Resources Plan (PNRP) requires all stormwater discharges be consented, and a global consent is currently being sought. Following an initial four-year monitoring period under the stage one stormwater consent, stage two of the consent will require stormwater management strategies to be developed, which will include measures to meet the water quality objectives of the whaitua chapters of the PNRP.

Through the whaitua committee process and Natural Resources Plan (Schedule 1) process, we will understand the objectives and limits with respect to water quality across the region, and implement long term measures and policies to meet these objectives and limits with communities.

RESILIENT NETWORKS SUPPORT OUR ECONOMY

To make sure we provide three water networks that are resilient to shocks and stresses we will plan for long term drinking water source reliability to meet future demand, and help improve the resilience of Wellington's eastern suburbs by progressing either the cross harbour pipeline or off-shore bores into an alternative water source. We will also look to deliver the Omāroro Reservoir towards the end of the Long Term Planning period, with the ultimate goal being a resilient supply of drinking water to central and eastern Wellington City. We will also complete major drinking water projects in Bell Road, Aotea, and Silverstream.

To make sure we minimise the impact of flooding on people's lives and proactively plan for the impacts of climate change, we will complete a three-year modelling programme to understand the full extent of the risk across all catchments. While we know high risk flooding areas, we will model stormwater impacts and work with our client councils and customers to plan how to minimise this impact.

Current population and demand growth projections for the Wellington region indicate that based on current per capita consumption, a new major water source (or storage facility) will be required by around 2040. We anticipate development work for this new facility will need to start around 2030 if demand is not reduced from current levels.

Statement of Intent Measure	Year 1	Year 2	Year 3
26. **We will work with our consultancy panel to improve efficiency** by reducing costs (from the current 15% of average fees per total construction costs) and lifting our internal capability	Reduce (simple projects) to 14.5% Identify areas to lower whole of life costs for complex projects	Reduce (simple projects) to 14%	Reduce (simple projects) to 13.5% Trend emerging in reduction of whole of life costs for complex projects
27. **We will complete major stormwater projects by 2021:** Tawa (commence construction); Porirua (commence construction); Kilbirnie (Stage 3 - subject to funding)	Tawa (feasibility, preliminary design complete) Porirua (commence consenting, preliminary design) Kilbirnie (Stage 1 complete)	Tawa (detailed design) Porirua (consenting, preliminary design complete) Kilbirnie (Stage 2 complete – subject to funds)	Tawa (commence construction) Porirua (detailed design complete) Kilbirnie (Stage 3 consents obtained, preliminary design complete - subject to funds)
28. **We will complete major wastewater projects by 2021:** Dixon Street (complete); Seaview (treatment plant seismic strengthening); Porirua (treatment plant consent renewal); and Hutt (main collecting sewer complete)	Dixon Street (complete) Seaview (seismic strengthening) Porirua (options)	Porirua (capacity upgrade)	Porirua (consent renewal) Hutt (complete)
29. **We will complete major drinking water projects by 2021:** Omāroro (complete detailed design - subject to funding); Bell road (commence detailed design); Aotea (complete preliminary design); and Silverstream (commence detailed design)	Omāroro (consent obtained) Bell Road (easement obtained, consents lodged) Aotea (commence consents) Silverstream (consent, preliminary design)	Omāroro (commence detailed design) Bell Road (commence preliminary design) Aotea (consents obtained) Silverstream (detailed design)	Omāroro (complete detailed design) Bell Road (commence detailed design) Aotea (commence preliminary design) Silverstream (commence construction)
30. **We will look for alternative water sources** by completing the harbour bore investigation project	Complete drilling, results analysed and recommendation on preferred option put forward and agreed with Greater Wellington Regional Council	Commence consents, land acquisition, and preliminary design	Consents obtained, land acquisition complete, detailed design commenced

Ready to respond in emergencies

We live in a region which experiences a number of natural hazard events. In recent times these have been more frequent, particularly short burst rainfall events.

No matter what the event, customers can rely on us to be out there dealing with issues and working hard to get our services back up as quickly as possible. We know sudden or extreme changes in water quality, flow, or environmental conditions (heavy rainfall, flooding, earthquakes) can cause drinking water to become contaminated, and we will diligently monitor and respond to any changes (Principle 4: Change precedes contamination).

Each emergency results in a lot of customer issues. We will maintain an accurate record of all issues and work through them with our customers until they are resolved, or the parties agree all options are exhausted.

We will make sure we are ready to respond during emergency events. This includes making sure we are able to utilise strategically placed depots and not solely rely on our head office to coordinate our response.

Statement of Intent Measure	Year 1	Year 2	Year 3
31. **We will respond to customer issues following a significant event (flooding, earthquake, landslip, major service failure)** by keeping an accurate record of all issues that occur and working through them with our customers within agreed timeframes	85% customer satisfaction with interactions measured through call backs	90% customer satisfaction with interactions measured through call backs	95% customer satisfaction with interactions measured through call backs

How we work

Putting our customers at the heart of everything we do

To help us create excellence in regional water services so communities prosper, we have three company values: people come first; we share our knowledge; and together we're stronger. These values influence the way we work and interact with each other and our suppliers on a day-to-day basis.

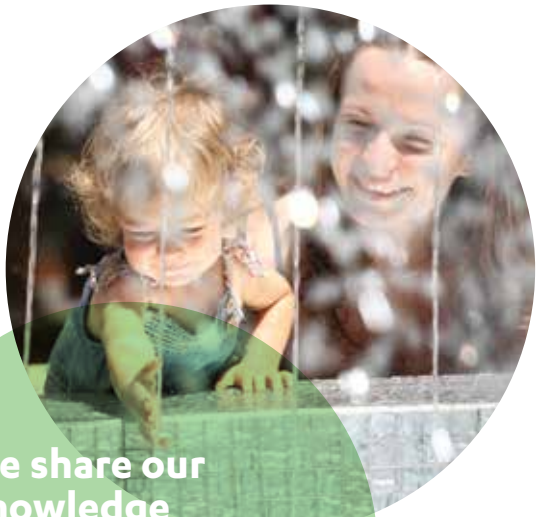
We have three company result areas where we focus our efforts as an organisation to make sure we are successful: we'll grow our capability; we'll work collaboratively with iwi and customers; and we'll create the highest value for money. These result areas help us to assure our customers that we are committed to providing the best services and outcomes for our customers, by putting our customers at the heart of everything we do.

Vision and values

Our vision is to create excellence in regional water services so communities prosper.

People come first

What we do makes a big difference to other people's lives, and we strive for excellence in serving our communities and each other.



We share our knowledge

We're a diverse team of skilled professionals, soaking up new knowledge to share innovative solutions that meet our customers' and clients' needs.

Together we're stronger

We look out for each other, we trust and respect each other, and we're proud of our achievements.

We'll grow our capability

We want our people to be passionate and dedicated to providing our customers with safe water. We need to promote our region as a great place to work so we attract the best people and grow our sector.

Councils have provided additional funds for a number of roles that will help address improving water quality and urban growth. However, a tight labour market is impacting our ability to recruit suitably talented people. Over the coming year we will seek to work with our contractors to launch a programme focused on a water career in Wellington.

We want to be an organisation where people can do their best, and will develop our capability and organisational culture through embedding our health and safety vision and behaviours, increasing engagement, growing and developing our leadership and customer capabilities, and recruiting a diverse workforce.

LIFT SECTOR CAPABILITY

Sector capability has generally been under-invested in over the past decade. We've made great strides to reverse this trend, but we can't do it alone and we need the sector to collaborate to make sure we are attracting the best people.

We will form a regional capability leadership group, which will include our consultant and contractor panels. This group will promote the region as a great place to work and look at the appointment of people from a 'best for the sector' mentality.

LEADERSHIP AND THE CUSTOMER

We want to have the capability to do our jobs well and we want dedicated and knowledgeable people to help us to provide customers with safe water (Principle 5: Suppliers must own the safety of drinking water). We also want to grow our capability and offer a higher duty of care in the way we deliver water services (Principle 1: A high standard of care must be embraced).

Our Workforce Plan describes the people capability development required to help us to meet the challenges of the future. As we develop strategic cases for our future service studies, we'll ensure that we have the capability to support implementation.

We will focus on developing our capability in the areas of leadership and the customer. All staff (within six months of joining) will participate in a one-day adaptive leadership course. Our people leaders and high potential staff will continue to progress and refine their skills in adaptive leadership through peer learning groups.

The key to placing the customer at the heart of everything we do is to develop a customer culture. This will take time but we'll start doing it by developing behaviours we want to convey in a consistent way when engaging with customers. These customer behaviours will be shared with our client councils' contact centres and contractors.

We will make customer capability a mandatory core competency for recruitment. To increase ownership of the customer throughout the business we will create 'customer champions', and define roles and responsibilities for owning customer issues end-to-end as they progress along their customer journey with us.

HEALTH AND SAFETY

Our new health and safety vision 'people first, every time' and behaviours have been shared with our contractors and partners. We will make sure our people, contractors and partners are committed to living and breathing this vision and behaviours.

We'll continue to increase health and safety engagement, participation, and accountability at all levels across the company and with our contractors, and we will work with our client councils to ensure critical risks are controlled and managed.

We will work collaboratively to provide a safe and healthy environment and a culture people believe in and uphold. Our approach to health and safety ensures equal emphasis on both safety and wellbeing. We will continue to promote personal resilience, physical health, and mental health through our 'WellBe' programme. We will report our progress regularly to our client councils, the Board, and the Wellington Water Committee.

RECRUITING A DIVERSE WORKFORCE

As we recruit for a capable and diverse workforce, we will maintain pay equity and provide opportunities for personal and professional growth. We will focus on gender equality by making sure we can have women better represented across the business which aligns with our commitment to United Nations Sustainable Development Goal 5: Gender equality.

Statement of Intent Measure	Year 1	Year 2	Year 3
32. **We will grow the water sector's capability** by increasing technical capability in our region	Benchmark current capability by qualification, experience and role. Identify areas of risk and opportunity and set targets	Meet set targets	Meet set targets
33. **We will build a customer culture** by developing consistent customer behaviours and embedding these behaviours in our company and alliance	Meet set targets	86% of all staff know how their work affects customers	87% of all staff know how their work affects customers
34. **We will understand people's engagement with our Health and Safety vision and behaviours** by developing and running a wellness survey for staff and our supply chain each quarter	Meet set targets	Quarterly survey results indicate 80% wellness on average this year	Quarterly survey results indicate 85% wellness on average this year
35. **We will improve the health and safety of our people** by reviewing our Health and Safety critical risks and applying controls to manage risks to an acceptable level	All critical risks reviewed within a year (2 per year) and improved controls progress reported the senior leadership team and the Board	All critical risks reviewed within a year (2 per year) and improved controls progress reported the senior leadership team and the Board	All critical risks reviewed within a year (2 per year) and improved controls progress reported the senior leadership team and the Board
36. **We will focus on gender equality** by removing barriers to workforce participation to enable more gender equity across all functions in the organisation	Min of 30% of gender balance in functional roles	Min of 35% of gender balance in functional roles	Min of 35% of gender balance in functional roles (excluding Alliance)

We'll work collaboratively with customers and iwi

We will work as trusted advisors to our client councils, and will work collaboratively with our customers, mana whenua partners, and stakeholders to make sure their feedback and aspirations are incorporated into our service planning.

TRUSTED ADVISOR TO OUR CLIENT COUNCILS

As a trusted advisor to our client councils it is essential we are transparent and responsive to their needs and expectations. We will treat each client council as an individual, with specific conditions and needs we must meet, and where it makes sense provide a regional perspective. We'll also aim for seamless interfaces with council contact centres and our contractors.

OUR MANA WHENUA PARTNERS

We will use the Memorandum of Partnership (MoP) we have with local iwi to guide the next steps in our relationship with our mana whenua. The MoP takes a partnership approach in terms of how we collectively interact with water/wai (which to iwi is a taonga).

Local iwi are Taranaki Whānui (the legal entity representing their interests is 'Taranaki Whānui ki te Upoko o te Ika a Maui'), and Ngāti Toa Rangatira (the legal entity representing their interests is 'Te Runanga O Toa Rangatira').

We interact with our mana whenua partners on a regular basis and ensure where possible they form a part of our project teams. This means consulting and involving them in regulatory changes and all publically notified resource consents.

CUSTOMERS

We will invite our customer panel, mana whenua partners, and stakeholders to have a view on service levels and make sure our network service goals and performance targets are meaningful to our communities.

We will build our customer hub capability and supporting information technology systems and processes to capture valuable customer data. As we improve our knowledge about customers and their expectations we will enhance our ability to deliver improved services as well as providing valuable input into investment decisions.

STAKEHOLDERS

We will take a whole-of-catchment approach through integrated catchment management plans and the whaitua committees. This means collaborating with multiple parties to establish shared objectives and ensure we are working towards the same goals.

Through the collaborative working group for Drinking Water Quality we will build our relationships with Regional Public Health, Greater Wellington Regional Council, and eight territorial authorities to safeguard the quality of our region's water.

We will continue to build relationships with our suppliers, contractors, partners, and with other key stakeholders (i.e. Water New Zealand, Wellington Region Emergency Management Office, Lifelines, Ministry for the Environment, Treasury's National Infrastructure Unit, Ministry of Business Innovation and Employment, WorkSafe New Zealand, and Guardian Groups).

Through our resilience work we'll keep building our relationships with other utilities, for example Wellington Electricity, New Zealand Land Transport Agency, and other organisations such as Fire and Emergency New Zealand, and Regional Public Health.

Statement of Intent Measure	Year 1	Year 2	Year 3
37. **We will maintain our rating as trusted advisor** by working with our five client councils to build strong relationships	Satisfied	Satisfied	Satisfied
38. **We will improve our relationship with our mana whenua partners** by improving their satisfaction with their ability to influence our decisions on future services	Satisfied	Satisfied	Satisfied
39. **We will improve our relationship with our customer panel** by improving their satisfaction with their ability to influence our future services	Satisfied	Satisfied	Satisfied
40. **We will build our relationship with our suppliers** by improving their satisfaction with how easy we are to work with	Satisfied	Satisfied	Satisfied

We'll create highest value for money services

Our greatest asset is our people. Together with our contractors we have the experience and skills necessary to deliver all our services and provide value for money as we do it. Value for money is a complicated term, but to us it's just delivering services with more and more effectiveness and efficiency.

This starts with the effectiveness of our planning and our alignment with councils' long term plans. We want our 30-year infrastructure plans, our 10-year activity plans, and our three-year rolling capital programmes to be effective in bringing about the change our client councils and customers require.

The way we organise how our work is done, through our consultants and our contractors is a key factor in value. Our Service Delivery Strategy (SDS) outlines the changes in the way we will work with our contractors. At the heart of this strategy is the desire to take the same approach to common work across the region. We have laid out plans for our alliance, our contractor panel, and wastewater contracts which we are going to deliver over the next two years. Keeping this programme to time is an important value for money initiative.

We want value for money to be part of everyday life. We want our people, our consultants and contractors to keep reducing waste and being innovative in their work. The success of this programme is measured by the number of value for money initiatives we come up with each year and the estimated costs of their implementation over the old way of doing things. We have made a special category within this work called 'smart services'. Smart services are defined as the importation of new ideas from around the world which deliver improved services to customers for less cost. We will deliver at least two new smart services a year from now on.

Continuing to ensure our own systems are efficient is a big challenge. We operate in an environment where we have to operate multiple systems and interface with multiple council systems. Simplifying this arrangement has enormous potential. We will prepare a business case for our client councils promoting the value of adopting an 'enterprise way of working', which we would then like funded. This would require additional capital from our councils (roughly valued at $6m) which will be difficult to obtain.

Statement of Intent Measure	Year 1	Year 2	Year 3
41. **We will make sure our services support and align with our client councils long term plans** by delivering on agreed three water outcomes	>90% alignment and achievement of agreed outcomes	>90% alignment and achievement of agreed outcomes	>90% alignment and achievement of agreed outcomes
42. **We will deliver on what we set out to do** by completing capital projects that meet the requirements of the project design brief	10% sample demonstrates >95% achievement	10% sample demonstrates >95% achievement	10% sample demonstrates >95% achievement
43. **We will deliver our service delivery strategy** by implementing the Alliance, implementing the contractor panel, and introducing a regional approach across all wastewater treatment plants	Alliance contract and approach agreed 31 December 2018 Contractor panel established 31 December 2018 Start the procurement process and finalise contract	Full implementation of alliance delivering agreed outcomes 31 July 2019 Full implementation of contractor panel delivering agreed outcomes 31 July 2019 Start phased implementation of new contract	Phased implementation continues
44. **We will create value for money** by delivering two smart services ideas each year	Two smart service ideas delivered each year	Two smart service ideas delivered each year	Two smart service ideas delivered each year
45. **We will better support the delivery of three waters services** by identifying where we can streamline and simplify our systems (subject to funding)	The business case is endorsed by councils Simplification programme plan in place, with delivery in line with plan	Simplification programme plan in place, with delivery in line with plan	Simplification programme plan in place, with delivery in line with plan

The world is changing around us

We can generate our own changes as we look to be more efficient. External factors and our customers' expectations can change over time. It also feels like there is a lot going on in the water sector, so it's important we remain well informed and ready to react.

Most of the change we are feeling at the moment flows from the Havelock North Inquiry and the higher expectations customers have for the water quality of our streams, rivers, harbours, and ocean. These are all good changes in our minds.

THE HAVELOCK NORTH INQUIRY

For us the Havelock North Inquiry will bring about some changes to how we operate. The Inquiry has recommended all drinking water operators are regularly assessed for competency through a new certification system. When this is introduced we will make sure all staff (including contractors) meet new certification requirements.

The Inquiry also recommends we collaborate with the Ministry of Health and the Greater Wellington Regional Council on the protection of drinking water sources, and we will work with these organisations to develop a joint working group. There may be other changes and cost implications from this.

CARBON NEUTRAL WORK

Wellington City Council is leading the way in our region to become carbon neutral. The three waters business is a significant user of electricity and producer of waste. It makes sense for us to follow the Council's lead and baseline our carbon use and then begin work to become carbon neutral by 2028. We will do this across the region for all of our client councils.

CLIMATE CHANGE

Climate change is impacting our region and we know it's having an effect on the performance of our stormwater and wastewater networks. We'll work closely with our client councils across the region to consider how we plan for and address these impacts, especially sea level rise and flooding. We'll use the modelling and evidence we collect to inform and advise our client councils.

LOCAL GOVERNMENT COMMISSION

The Wairarapa District Council's proposal to amalgamate was not accepted by the ratepayers of South Wairarapa, Carterton, and Masterton councils, so has not been progressed. The Local Government Commission wrote to the councils' suggesting they might like to consider joining Wellington Water. We will continue to explore ways of improving the delivery of services to all customers of the region.

We believe building a 'centre of excellence' of technical skills within our organisation to support the broader region makes a lot of sense. Such a model allows councils to continue to deliver services locally, while relying on us to provide service planning, modelling, data stewardship services, and other high value services.

Statement of Intent Measure	Year 1	Year 2	Year 3
46. **We will understand what our current carbon emissions are** by using a system/methodology to track and develop a carbon emission profile (which includes priority areas to reduce emissions)	System or methodology developed and agreed Baseline carbon emission inventory complete	Performance reassessed and target set Carbon emission profile developed and recommendations made	Start implementing recommendations made in carbon reduction plan

Keeping an eye on critical operating frameworks

To do our job well we rely on critical operating frameworks. These frameworks support our people so they can do their best work. We ensure these are maintained and regularly audited. The most important frameworks are: our financial system; our risk management and internal audit system; our Health and Safety system; and our performance management system.

We have incorporated the statement of intent into our performance management framework. For more information on how we measure our performance please visit our website: **https://wellingtonwater.co.nz/publication-library/dia-mandatory-non-financial-performance-measures/**

Appendices

Appendix 1: What influences us

There is a lot going on around us. We will keep pace with these changes and understand their implications to provide reliable services to our customers and good advice to our client councils.

Resilience and climate change

1. New Minister for Climate Change and proposed Zero Carbon Act.
2. Local Government New Zealand review of infrastructure exposed to sea level rise (associated with a changing climate).
3. Wellington Region Climate Change Working Group.
4. Responding to the Wellington Region Natural Hazards Strategy.

Economic

1. Urban Development Authorities and possible National Policy Statement Urban Development Capacity.
2. Population growth and Government's commitment to build new houses.
3. The David Shand Rates Inquiry Report will be revisited and may consider affordability of rates.
4. National Planning Standard changes will be introduced – standardising infrastructure provisions in regional and district plans across the country.
5. Aging water assets (around 55 per cent of the regions wastewater pipes are between 35 and 60 years old with an expected life of 80 years).

Cultural

1. Setting objectives and limits for sub-catchments under the Te Awarua o Porirua Whaitua and the Wellington Harbour and Hutt Valley Whaitua.
2. Application of the newly established Mana Whakahono agreements as expressed in the latest amendments to the Resource Management Act 1991.

Political

1. New Minister of Local Government, Hon. Nanaia Mahuta.
2. New Government looking into restrictions on water exports.
3. Local Government Commission suggests Wairarapa and Kapiti Coast District councils' join Wellington Water.
4. Building pressure for water efficiency and demand management solutions.

Environmental

1. Greater Wellington Regional Council's review of the Waiwhetu aquifer.
2. Ministry for the Environment Review of the National Environmental Standards for Sources of Human Drinking Water (NES)
3. National Policy Statement on Freshwater Management and Government's target to make 90 per cent of New Zealand's rivers and lakes swimmable by 2040.
4. The Greater Wellington Regional Council Natural Resources Plan (NRP).

Social

1. Tight skills market for water engineers.
2. Social impacts of flooding on communities.

Health and Safety

1. Health and safety forum focus on critical risks.
2. Staged roll-out through to 2019 of the Hazardous Substances Regulations (agreed to in 2017).

Technology and data

1. Reducing the time taken for microbiological testing
2. Trenchless technologies and pipe rehabilitation techniques.
3. Internet of Things for remote monitoring of all three waters.
4. Enabling staff through the use of mobile applications.
5. Improving data sources and quality to prepare for the introduction of artificial intelligence.

Water reform

1. Department of Internal Affairs Three Waters Review focus on four workstreams.
2. Implications of the Havelock North Drinking Water Inquiry Stage 2.
3. The Office of the Auditor-General is currently deliverying a programme of work considering how well publicly funded organisations are managing New Zealand's water resources and delivering water related services.
4. Local Government New Zealand Water 2050 Project and possible new funding options infrastructure providers.
5. University of Canterbury supported by Water New Zealand and IPWEA establishing guidelines to determine the appropriate level of pipeline renewals for the water industry.

Appendix 2: About us

WELLINGTON WATER COMMITTEE

The Wellington Water Committee's five shareholders are: the Hutt City Council (represented by Deputy Mayor David Bassett); Porirua City Council (represented by Mayor Mike Tana); Upper Hutt City Council (represented by Mayor Wayne Guppy); Wellington City Council (represented by Councillor Iona Pannett); and Greater Wellington Regional Council (represented by Councillor Jenny Brash). Each shareholder holds 20 per cent of the voting shares ('A' shares) of Wellington Water.

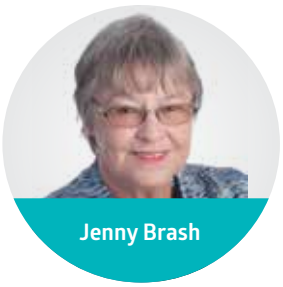
The Wellington Water Committee provides governance oversight of Wellington Water and its management of the network infrastructure for the delivery of the three waters services. They do this by considering our half yearly and annual reports, monitoring our performance, appointing directors to our Board of Directors, and providing recommendations to shareholders on our proposals.

The Committee writes an annual Letter of Expectations to the Board, which outlines our key priorities and areas of focus. This is used to guide the development of our Statement of Intent.


David Bassett
Chair


Wayne Guppy


Mike Tana


Jenny Brash


Iona Pannett

OUR BOARD OF DIRECTORS

We are governed by a Board of independent directors. The Chair of the Board reports to the Wellington Water Committee. The Board approves our strategy, ensures legal compliance, and monitors our performance, risks, and viability.

The Board's approach to governance is to establish with management (and in consultation with shareholders), clear strategic outcomes that drive our performance. The Board is also mindful of its relationship with the Committee and how both the Board and Committee influence us in different ways.

Our Board supports and empowers our management team to deliver and report performance using a no surprises approach, by creating an environment of trust where information is freely available, decision making is transparent, and strategic conversations provide insights and guidance for the company.

Consistent with a high performance organisation, Board members challenge management (and other Board members) to keep a healthy culture of inquiry and openness.


David Wright


Cynthia Brophy


Nicki Crauford


David Benham


Geoff Dangerfield


Philip Barry

WELLINGTON WATER LIMITED

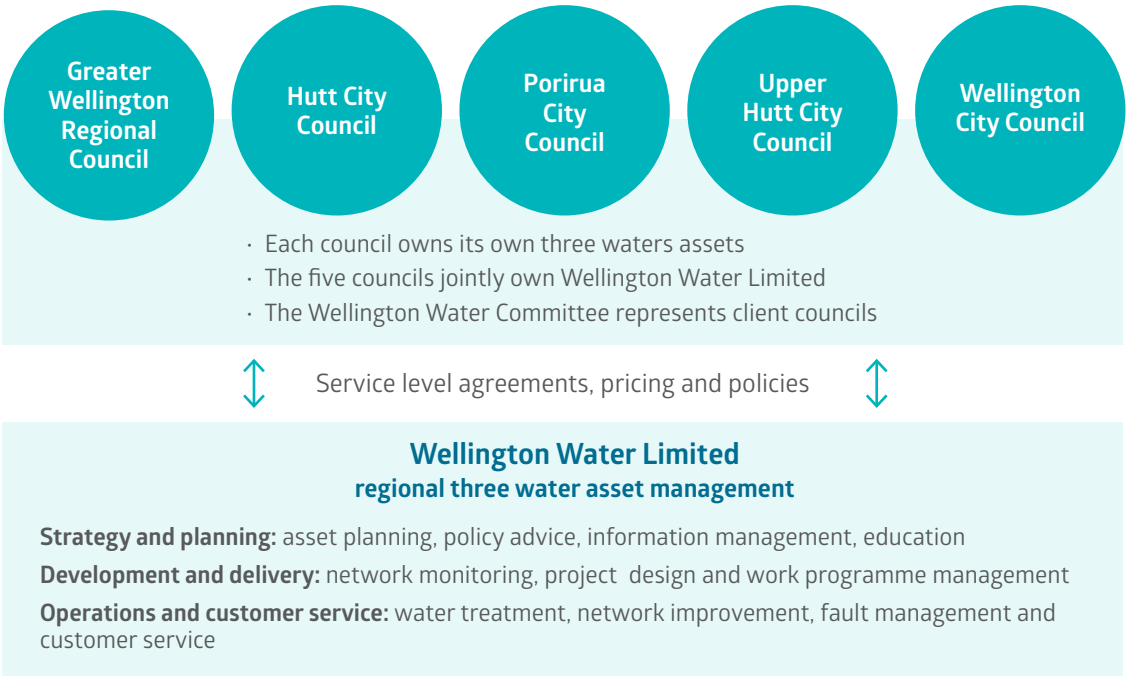
We're a council-controlled organisation jointly owned by five client councils.

Employing 205 staff we manage the three waters networks, infrastructure, and services on behalf of our client councils.

To do this we manage annual expenditure of approximately $145 million to maintain and develop water assets with a replacement value of approximately $5.8 billion. We also provide investment advice about the future development of three water assets and services.

Each client council owns its own water services assets (pipes, pump stations, reservoirs and treatment plants), and decides the level of service they require, the policies it will adopt, and investments it will make (after considering our advice) in consultation with their respective communities.

We operate under the Companies Act 1993 and the Local Government Act 2002 and comply with the Health (Drinking Water) Amendment Act 2007, the Drinking Water Standards for New Zealand 2005 (revised 2008) and other legislation such as the Resource Management Act 1991 (and proposed amendments), the Wellington Regional Water Board Act 1972 and the Health and Safety Reform Act.




Colin Crampton, Chief Executive


Mark Kinvig


Audrey Scheurich


Chris Mathews


Gary O'Meara


Jo Bryan


Tonia Haskell

Appendix 3: Governance and shareholder information

Wellington Water is a council-controlled organisation as defined by Section 6 of the Local Government Act 2002. Wellington Water is also covered by the Companies Act 1993 and governed by law and best practice. The Shareholders' Agreement relating to Wellington Water Limited outlines the way they manage their shareholdings in Wellington Water and their respective relationships with each other.

THE BOARD OF DIRECTORS

The Board of Directors consists of six members. All directors must be independent directors selected by the Wellington Water Committee, in accordance with the Board's skill matrix. Each director can serve a maximum of two terms, or six years unless agreed by the Wellington Water Committee.

- Geoff Dangerfield is appointed to 30 September 2020.
- Nicola Crauford is appointed to 31 December 2018.
- Cynthia Brophy is appointed to 31 January 2021.
- David Benham is appointed to 30 June 2019.
- Philip Barry is appointed to 30 June 2021.
- David Wright (chair) is appointed to 31 January 2020.

Board performance reviews are undertaken regularly and are provided to the Wellington Water Committee and shareholders on completion. The Board is responsible for the direction and control of Wellington Water Limited.

RATIO OF CONSOLIDATED SHAREHOLDERS' FUNDS TO TOTAL ASSETS

Ownership of infrastructural assets is retained by the shareholders (or other clients). As a business that returns all benefits to shareholders, the ratio of shareholders' funds to assets is contained in the Statement of Changes in Equity.

INFORMATION TO BE PROVIDED TO SHAREHOLDERS

In each year Wellington Water shall comply with the reporting requirements under the Local Government Act 2002 and the Companies Act 1993 and regulations.

In particular Wellington Water will provide:

- A statement of intent detailing all matters required under the Local Government Act 2002, including financial information for the next three years.
- Within two months after the end of the first half of each financial year, the Company shall provide a report on the operations of Wellington Water to enable an informed assessment of its performance, including financial statements (in accordance with section 66 of the Local Government Act 2002); and
- Within three months after the end of each financial year, Wellington Water will provide an annual report which provides a comparison of its performance with the statement of intent, with an explanation of any material variances, audited consolidated financial statements for that financial year, and an auditor's report (in accordance with sections 67, 68 and 69 of the Local Government Act 2002).

Due to the extensive reporting requirements undertaken in accordance with the service level agreements with client councils, the reliance on six monthly reports fully meets the Local Government Act's requirements and is considered appropriate.

SHARE ACQUISITION

There is no intention to subscribe for shares in any other company or invest in any other organisation.

COMPENSATION FROM LOCAL AUTHORITY

It is not anticipated that the company will seek compensation from any local authority other than in the context of management services agreements and the shareholders agreements with client councils.

EQUITY VALUE OF THE SHAREHOLDERS' INVESTMENT

Total shareholders' equity is estimated to be valued at $3.3 million as at 31 December 2017. This value will be assessed by the directors on completion of the annual accounts or at any other time determined by the directors. The method of assessment will use the value of shareholders' funds as determined in the annual accounts as a guide.

Appendix 4: Customer outcomes and service goals

Customer Outcome		Service Goal	Objectives
Outcome 1 - Safe and Healthy Water We provide water services to ensure safe drinking water and work to eliminate the harmful effects of wastewater and stormwater over time		We provide safe and healthy drinking water	Water is delivered to meet current NZ Drinking Water Standards and water supply legislation so that our activities prevent contamination of treated water Water supplied is of acceptable quality to customers
		We operate and manage assets that are safe for our suppliers, people and customers	Water services are delivered in a way that is safe for our suppliers, people and customers Asset safety risks are identified and improved
		We provide an appropriate region-wide fire-fighting water supply to maintain public safety	Sufficient water is supplied meet urban firefighting needs under normal conditions We identify and implement water supply improvements to assist the Fire Service
		We minimise public health risks associated with wastewater and stormwater	The public is protected from direct exposure to untreated wastewater onto land The public is protected from direct exposure to untreated wastewater onto beaches

Customer Outcome		Service Goal	Objectives
Outcome 2 - Respectful of the environment When we provide water services we seek to avoid harm to the natural and built environment and over time enhance it for the benefit of future generations		We manage the use of resources in a sustainable way	Our customers receive water services that are managed efficiently through minimising: · water loss · energy consumption · production of treatment plant waste
		We will enhance the health of our waterways and the ocean	Water quality of the waterways and harbours is not adversely affected by discharges from any of the three waters network Integrated catchment management plans are used in a collaborative approach with stakeholders to carry out improvements to the water quality of waterways and harbours
		We influence people's behaviour so they are respectful of the environment	Communities are educated to use our infrastructure in ways that reduce the impact on the natural environment in areas such as stormwater pollution and water conservation
		We ensure the impact of water services is for the good of the natural and built environment	Water services are managed to comply with consents Water services are built and managed in ways that are not intrusive to communities.

Customer Outcome		Service Goal	Objectives
Outcome 3 - Resilient networks support our economy We provide reliable day-to-day water services that are able to withstand shock and stresses and future-proof the network to enable a strong regional economy and enhanced natural environment		We minimise the impact of flooding on people's lives and proactively plan for the impacts of climate change	The potential impact of increased sea levels and flooding on property and key transport links from stormwater is identified and the impacts are minimised The impacts of an additional 1 m sea level rise are understood and preventive measures are implemented where practicable. Where prevention is not possible, the impacts will be managed operationally
		We provide three water networks that are resilient to shocks and stresses	We work to meet agreed levels of service to restore water services to customers
		We plan to meet future growth and manage demand	The water supply network meets normal demand except where a drought is more severe than a 1-in-50 year return period event Water supply and wastewater services are planned to accommodate changes in demand and future growth, with a focus on reducing water wastage
		We provide reliable services to customers	Customers have access to reliable water and wastewater services Stormwater networks perform as intended when it rains

Appendix 5: Three-year forecasts

COMMENTARY ON FINANCIAL STATEMENTS

Wellington Water's operating expense budget for 2018/19 is $29.1 million. Of this total, $21.8 million represents remuneration and other employee costs, and $4.3 million relates to vehicles, utilities, professional services and director's fees, and depreciation costs.

Wellington Water adopts a no surprises approach. Forecast updates, capital expenditure plans, debt and forecast positions are communicated to our client and shareholder representative meetings.

Wellington Water extended its trusted advisor model to consolidate Councils' external water expenditure, resulting in an increase in council operating expense (opex) and capex programme recoveries. Previously, these recoveries were limited to consultancy and network maintenance service recoveries. All three waters related expenditure managed on behalf of councils is now disclosed as "council opex programme" and "council capex programme".

STATEMENT OF COMPREHENSIVE REVENUE AND EXPENSES

Wellington Water's 2018/19 operating expense budget represents a $3.5m increase from the 2017/18 operating expense budget.

- This increase primarily relates to funding for additional roles ($2.3m) as agreed with councils throughout the year.
- Previous Statement of Intents forecasted a year on year increase of $0.6m to allow for inflation and remuneration reviews.
- The balance of the increase ($0.6m) is to fund additional depreciation ($0.3m) and some discretionary spend ($0.3m) to allow Wellington Water to operate efficiently in a flexible, agile or proactive manner.
- The forecast excludes any funding for the Simplification Project or scalability of the organisation to adapt to large changes in the capex programme.

STATEMENT OF COMPREHENSIVE REVENUE AND EXPENSES

	Budget 18/19 $000	Projection 19/20 $000	Projection 20/21 $000
One budget fee	112,689	114,559	165,520
Management fee	29,934	30,832	31,757
Capital grant	109	119	-
Other revenue	185	189	253
Total revenue	**142,917**	**145,699**	**197,531**
One budget capex expenditure	(67,263)	(68,224)	(118,259)
One budget opex expenditure	(45,426)	(46,335)	(47,261)
Salaries and wages	(19,614)	(20,104)	(20,607)
Superannuation	(668)	(685)	(702)
Directors	(164)	(164)	(164)
Audit	(100)	(100)	(100)
Operating leases	(994)	(1,014)	(1,035)
Other personnel costs	(988)	(1,007)	(1,027)
Other expenditure	(6,226)	(6,745)	(7,159)
Depreciation and amortisation	(1,154)	(994)	(962)
Interest expense	(26)	(19)	(1)
	(142,622)	**(145,391)**	**(197,277)**
Surplus/(deficit) before tax	**295**	**308**	**253**
Tax (expense)/credit	(153)	(151)	(131)
Total comprehensive revenue and expenses	**142**	**157**	**122**
Attributable to:			
Wellington City Council	60	66	52
Hutt City Council	30	33	26
Upper Hutt City Council	12	13	10
Porirua City Council	18	20	15
Greater Wellington Regional Council	22	25	19
Total comprehensive revenue and expenses	**142**	**157**	**122**
Shareholder equity ratio	**11%**	**11%**	**9%**

The financials in this SOI are draft and include a number of assumptions which have yet to be evaluated fully. The increased Wellington Water budget will likely be offset in part by a reduction in council budgets, however the detail of this is yet to be finalised.

OTHER FINANCIAL INFORMATION

Current value of assets	The current value of assets at 31 December 2017 was $3.3m based on the net asset value of Wellington Water as disclosed in the unaudited interim financial statements.
Accounting policies	Accounting policies are as per the 2017 Annual Report.
Financial reporting	Wellington Water's financial reporting is prepared in accordance with generally accepted accounting policies.

COUNCIL OPEX PROGRAMME

	2018/19 $000	2019/20 $000	2020/21 $000
Wellington City Council	**23,651**	**24,124**	**24,606**
Potable Water	4,772	4,868	4,965
Stormwater	2,193	2,237	2,281
Wastewater	16,685	17,019	17,359
Hutt City Council	**11,702**	**11,936**	**12,175**
Potable Water	2,349	2,396	2,444
Stormwater	1,314	1,341	1,367
Wastewater	8,038	8,199	8,363
Upper Hutt City Council	**4,985**	**5,085**	**5,187**
Potable Water	1,094	1,116	1,138
Stormwater	593	605	617
Wastewater	3,299	3,365	3,432
Porirua City Council	**2,842**	**2,899**	**2,957**
Potable Water	972	992	1,012
Stormwater	235	239	244
Wastewater	1,635	1,668	1,701
Greater Wellington Regional Council	**4,968**	**5,067**	**5,168**
Potable Water	4,968	5,067	5,168
Grand Total	**48,148**	**49,111**	**50,093**

COUNCIL CAPEX PROGRAMME

Note that this includes an allocation of Management Fee charged to projects.

	2018/19 $000	2019/20 $000	2020/21 $000
Wellington City Council	**26,636**	**25,992**	**47,549**
Potable Water	**9,605**	**7,686**	**17,661**
1.1 Safe drinking water	1,567	1,567	1,566
1.2 Safety of assets	50	50	50
1.3 Firefighting	682	26	1,672
2.1 Resource usage	25	25	486
3.2 Resilience	1,522	1,000	4,146
3.3 Growth	850	850	7,050
3.4 Reliability	4,909	4,168	2,690
Stormwater	**9,300**	**8,969**	**4,028**
1.2 Safety of assets	2,770	8,024	3,432
3.1 Flooding	6,460	875	525
3.3 Growth	70	70	70
Wastewater	**7,731**	**9,337**	**25,860**
1.4 Public Health	6,077	7,799	5,318
2.1 Resource usage	20	9	9
2.2 Waterway health	300	495	19,000
3.3 Growth	1,094	994	1,494
Hutt City Council	**14,569**	**10,646**	**20,458**
Potable Water	**4,568**	**3,702**	**1,496**
1.1 Safe drinking water	550	550	550
3.2 Resilience	3,196	1,462	160
3.3 Growth	50	50	50
3.4 Reliability	772	1,640	736
Stormwater	**3,380**	**1,869**	**4,187**
1.2 Safety of assets	50	660	10
2.2 Waterway health	100	100	100
3.1 Flooding	3,088	1,067	4,077
3.2 Resilience	100	-	-
3.4 Reliability	42	42	-
Wastewater	**6,621**	**5,075**	**14,775**
1.4 Public Health	2,699	4,012	14,365
2.4 Natural and Built Environment	199	-	-
3.2 Resilience	2,860	100	100
3.3 Growth	800	900	300
3.4 Reliability	63	63	10

	2018/19 $000	2019/20 $000	2020/21 $000
Upper Hutt City Council	**6,624**	**10,712**	**15,526**
Potable Water	**1,962**	**988**	**1,388**
1.1 Safe drinking water	50	50	50
2.1 Resource usage	159	67	86
3.2 Resilience	799	202	245
3.3 Growth	20	20	20
3.4 Reliability	934	649	987
Stormwater	**1,011**	**7,013**	**7,147**
3.1 Flooding	961	7,013	7,147
3.2 Resilience	50	-	-
Wastewater	**3,651**	**2,711**	**6,992**
1.4 Public Health	3,604	2,665	6,953
3.3 Growth	20	20	20
3.4 Reliability	27	26	18
Porirua City Council	**10,611**	**12,102**	**10,631**
Potable Water	**3,177**	**1,157**	**3,540**
1.1 Safe drinking water	100	100	100
2.1 Resource usage	158	250	-
3.2 Resilience	2,216	50	1,000
3.3 Growth	170	170	1,770
3.4 Reliability	534	587	670
Stormwater	**1,127**	**4,492**	**2,125**
3.1 Flooding	1,127	4,492	2,125
Wastewater	**6,306**	**6,452**	**4,966**
1.2 Safety of assets	50	20	20
1.4 Public Health	2,345	3,396	4,200
2.1 Resource usage	1,000	-	-
2.2 Waterway health	670	740	600
2.4 Natural and Built Environment	350	200	50
3.2 Resilience	100	-	-
3.3 Growth	1,661	2,031	31
3.4 Reliability	130	65	65
Greater Wellington Regional Council	**14,320**	**14,360**	**34,230**
Potable Water	**14,320**	**14,360**	**34,230**
1.1 Safe drinking water	2,960	2,080	2,100
1.2 Safety of assets	375	-	-
2.1 Resource usage	60	60	60
3.2 Resilience	9,443	7,300	3,200
3.3 Growth	150	1,500	100
3.4 Reliability	1,332	3,420	16,520
Grand Total	**72,759**	**73,812**	**128,394**

Your public water company

HUTT CITY TE AWA KAIRANGI

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Appendix 2 – Submissions Summary

Submission No.	Name of Submitter	Speaking	Status Quo	Wairarapa 3 waters delivery	Shareholder Wgtn Water	Comments in support of choice	Officer Comments
1	Peter Roberts	N	0	1	0	No comment	The SOP provides commenatry on this option
2	Tracey R Yandle	N	1	0	0	No comment	The SOP provides commenatry on this option
3	Tony Pritchard	N	1	0	0	Not adequately costed. Self governance being exported to Wellington	Paragraph 1 of the SOP indicated SWDC retains ownership of infrastructural assets. Para 4.3 of the SOP indicates SWDC would retain asset ownership, budgetary control, and service level setting. The impact of [becoming a shareholder] this option in relation to that forecast in the 2018/28 LTP would be minimal
4	Perry Cameron	Y	0	1	0	Loss of control	Para 4.3 of the SOP indicates SWDC would retain asset ownership, budgetary control, and service level setting. The impact of [becoming a shareholder] this option in relation to that forecast in the 2018/28 LTP would be minimal
5	Jack Sheppard	N	0	0	1	SWDC has lack of capacity to adequately manage the assests.	
6	Adam Mattsen	N	0	0	1	Good oportunity. Specialist in the area.	
7	Dan Neemia	N	1	0	0	Cost increases. Loss of assests.	Paragraph 1 of the SOP indicated SWDC retains ownership of infrastructural assets. Para 4.3 of the SOP indicates SWDC would retain asset ownership, budgetary control, and service level setting. The impact of [becoming a shareholder] this option in relation to that forecast in the 2018/28 LTP would be minimal
8	Barry Kempton	Y	1	0	0	No problem with current operation or cost.	The SOP outlines the benefits of becoming a shareholder, against the risks of retaining the status quo
9	Joanne Kempton	N	1	0	0	Does not seee any advantages to changing. Moroa Race should be operated by locals	The SOP outlines the benefits of becoming a shareholder, against the risks of retaining the status quo. The Water Race committees will be retained.
10	Penny Taylor	N	0	0	0	Does not want flouride in water	The decision to fluoridate water, or not will not be transferred to Wellington Water. Curently this sits with the local authority, though the decision may transfer to the Wairarapa DHB
11	Regional Public Health	Y	0	0	1	Protection of infrastructure. Consistency. Strengthen ability of Council to meet standards.	

Submission No.	Name of Submitter	Speaking	Status Quo	Wairarapa 3 waters delivery	Shareholder Wgtn Water	Comments in support of choice	Officer Comments
12	Warren Woodgyer	Y	0	1	0	Poor design of Martinborough water supply.	The three waters output will still be lead and managed by SWDC. The current SWDC staff will be located in SWDC offices, so knowledge will be retained. One of the key benefits of joining WW will be resiliance during an event. The recent change in service delivery provider had as a key plank the ability to mobilise a large workforce in the event of an emergency. This service delivery provider already has a presence in the Wairarapa.
13	Micheal Dennis Perry	Y	0	1	0	No comment	The SOP provides commenatry on this option
14	Eileen Ward	Y	1	0	0	No comment	The SOP provides commenatry on this option
15	Susan Perry	Y	0	1	0	No comment	The SOP provides commenatry on this option
16	Ted Ward	Y	1	0	0	No comment	The SOP provides commenatry on this option
17	Richard Rudman	Y			0	Insufficient evidence to support Wellington Water	The SOP outlines the benefits of becoming a shareholder, against the risks of retaining the status quo. The Water Race committees will be retained.
18	Wairarapa Voice Inc	Y	1	0	0	Existing issues will transfer to Wellington Water. Revise current delivery model.	Paragraph 1 of the SOP indicated SWDC retains ownership of infrastructural assets. Para 4.3 of the SOP indicates SWDC would retain asset ownership, budgetary control, and service level setting. The impact of [becoming a shareholder] this option in relation to that forecast in the 2018/28 LTP would be minimal. Responsibility for addressing issues will still lie with SWDC, through service level setting and the LTP processes.
	TOTALS		**8**	**5**	**3**		

Appendix 3 – Lutra report

SOUTH WAIRARAPA DISTRICT COUNCIL
Kia Reretahi Tātau

Cover note from SWDC on the 'Technical Report: Martinborough Water Treatment Plant – Incident Review'

The attached 'Technical Report: Martinborough Water Treatment Plant – Incident Review' has been prepared by Lutra for the benefit of and use by South Wairarapa District Council (SWDC).

Lutra is an expert water consultancy. This is an independent report and, as such, SWDC, and other agencies involved in the incident, have not influenced its content other than to offer factual corrections to information such as dates, times etc.

Lutra was commissioned by SWDC to develop the Report based on the consultancy having the necessary expertise and knowledge to assess the Martinborough Water Treatment Plant. It should be noted that Lutra became involved in the response to remove the boil water notice, by providing services to fix and test the UV plant, at around Day 13 of the incident.

Despite this, the company was a fair and practical choice to prepare this Report. There are a limited number of companies in New Zealand that could have carried out this technical review, given the specialised nature of the subject matter and the tight timeline in which the Report needed to be completed.

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.

As a technical report, SWDC acknowledges there will be terms used within the Report that may not be easily understood by a lay person. A glossary of terms will be made available to help address this.

SWDC considers this Report to be an important input to its overall post-incident review of the Martinborough water incident. Other key inputs to the review process include feedback from the Martinborough community, and business community, gathered via community meetings and email, and from other agencies involved in the response, gathered by an inter-agency debrief.

The full and final post-incident review will include this Technical Report, summaries of the feedback received from the community, and a plan of action to minimise the risk of a repeat incident and its impact on the community.

For questions or feedback on this report, please email martinboroughwater@swdc.govt.nz.

Jennie Mitchell
Acting Chief Executive

5 April 2019

Lutra.

Technical Report.

Martinborough Water Treatment Plant – Incident Review

Prepared for South Wairarapa District Council

SWDC-R01-11

April 2019

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1 Introduction

E.Coli, an indicator of faecal contamination, was detected in the Martinborough water supply on the 30th of January 2019. A boil water notice was put in place on the 1st of February. The boil water notice remained in place until the 21st of February.

Lutra were engaged to provide an independent review of the contamination incident. South Wairarapa District Council (SWDC) had the following objectives for this incident review report:

- To describe the incident.
- To identify potential intervention points that could have helped prevent this incident happening.
- To recommend corrective actions that will prevent a repeat of the incident.

2 Background Information

2.1 Water Source

Water for the Martinborough supply is sourced from two bores – Herricks Bores 3 and 4 – located adjacent to the Ruamahanga River on a private dairy farm (Figure 1). The bores are classified as not secure (Morris and Mzila, 2019) and according to the Water Safety Plan (Graham, 2015) require 4 Log protozoa treatment. It is noted that *Cryptosporidium* testing undertaken between June 2016 and July 2017 (SWDC, 2019) showed no *Cryptosporidium* oocysts detected, indicating that the source is likely to require a maximum of 3 Log protozoal treatment. However, this sample data has not yet been assessed by the Drinking Water Assessor (DWA).

Figure 1 – Location of water source and water treatment plant.

Herricks Bore No.3 is 11.5m deep and Herricks Bore No.4 is 9.4m deep. The aquifer is unconfined and highly permeable (Morris and Mzila, 2019).

61 bore water samples have been taken since 2003 and no *E.Coli* have been detected (SWDC, 2003-2019). The most recent sample was taken in December 2018.

The bore water has a near neutral pH (lab data – average 6.9), low turbidity (online average of 0.037NTU), low organic carbon content (online average of 98.2% UVT), elevated dissolved manganese (lab data - average 0.049 mg/L) and dissolved iron (lab data - average 0.058 mg/L), and elevated hardness (lab data - average of 197mg/L).

There are no assigned P2 determinands.

2.2 Water Treatment Plant

The bore water was untreated until the installation of an ultraviolet (UV) disinfection process in 2011. This was designed as a protozoa barrier and applied a UV dose of 12mJ/cm^2. The UV models are Berson IL450+ configured in a duty/standby arrangement. The certificate of validation is based on the USEPA method. The UV plant is validated up to a flow of 26.1L/s with a UVT of 90% and a flow of up to 61.4 L/s with a UVT of ≥ 98% UVT. The UV

plant was upgraded in April 2018 when the target applied dose was increased to 40mJ/cm^2 to provide additional bacteriological disinfection.

The UV treated water is dosed with sodium carbonate to increase the pH of the treated water.

There is no chlorination process. The water is transferred to the reticulation system without any disinfectant residual.

The water treatment plant is operated by Citycare under contract to South Wairarapa District Council.

2.3 Supply Zone

Water is pumped directly from the bores, through the water treatment plant to the reticulation system. There are four reservoirs located at the far end of the system providing a total storage volume of approximately 4000 m^3 (Figure 2).

Figure 2 – Location of treated water storage reservoirs.

The Martinborough supply zone has a population of 1,505 (Environmental Science and Research, 2017).

3 Drinking Water Standards Compliance

The Drinking Water Standards for New Zealand 2005 (Revised 2018) (Ministry of Health, 2018), referred to simply as DWSNZ, define the minimum performance requirements for a water supply scheme. It is noted that recent changes to the DWSNZ did not come into effect until 1st March 2019 and therefore the previous version of the DWSNZ – The Drinking Water Standards for New Zealand 2005 (Revised 2008) were in effect at the time of the incident. The requirements of this version of the DWSNZ are defined in the following sections.

3.1 Water Source

The water source compliance requirements for the Martinborough water supply along with recent performance are summarised in Table 1. It is noted that the bores are classified as non-secure.

Table 1 – Water source DWSNZ compliance requirements and recent performance

Requirement	Compliance Achieved[1]	
	2017-2018	2018-2019 to date[2]
Radiological compliance [3]	Yes	Yes

Notes: [1] The compliance year runs from 1st July to 30th June. [2] Lutra assessment based on information available. [3] Radiological compliance requires testing against a range of radiological parameters. Testing must be undertaken once every 10 years. Sampling was completed in June 2016.

3.2 Water Treatment Plant

The water treatment compliance requirements for the Martinborough water supply along with recent performance are summarised in Table 2. It is noted that SWDC report against bacteriological compliance using Criterion 1 – *E.Coli* monitoring. Compliance against Criterion 5 – UV disinfection is shown in Table 2 for information only.

Table 2 – Water treatment plant DWSNZ compliance requirements and recent performance

Requirement	Compliance Achieved[1]	
	2017-2018	2018-2019 to date[2]
Protozoal compliance	No[3]	No[4]
Bacteriological compliance – Criterion 1	No	Not reviewed
Bacteriological compliance – Criterion 5	No[5]	No[6]
Chemical compliance	Yes	Not reviewed

Notes: [1] The compliance year runs from 1st July to 30th June. [2] Lutra assessment based on information available. [3] DWA annual review deemed Citycare staff not competent to calibrate instruments that ensure compliance is met. [4] Citycare staff failed DWA competency audit in November 2018 therefore still not competent to calibrate instruments to ensure compliance is met. No UV applied during Incident. [5] UV dose not sufficient to achieve Criterion 5. [6] UV dose not controlled correctly therefore not achieving correct UV dose in addition to no UV applied during incident and Citycare staff not being audited by DWA for competency to calibrate UV instruments (UVI and UVT) to ensure compliance is met.

The DWA identified in their annual review (July 1st 2017 – 30th June 2018) (Central North Island Drinking Water Assessment Unit, 2018) that Citycare operations staff were not competent to calibrate instruments that ensure compliance is met. The DWA undertook an audit of two Citycare staff members in November 2018 (Central North

Island Drinking Water Assessment Unit, 2018) and assessed their competency to calibrate pH meters, turbidity meters and free available chlorine analysers. Both operators failed this assessment and there were also non-conformances on record keeping. The two Citycare staff members were re-assessed on 27-28th March 2019 and found to be competent to calibrate pH meters, turbidity meters and free available chlorine analysers.

Lutra reviewed the compliance reporting spreadsheet (SWDC, 2018) used by South Wairarapa District Council to determine online protozoal and bacteriological compliance. Multiple cell reference and calculation errors were found, the net result of which was an under-reporting of non-compliance.

It was noted that in reviewing online data that the treatment plant was operational without UV (the most probable cause of the incident) on a prior occasion – 3rd April 2018 to 17th April 2018.

3.3 Supply Zone

The water supply zone compliance requirements for the Martinborough water supply zone along with recent performance are summarised in Table 3.

Table 3 – Supply zone DWSNZ compliance requirements and recent performance

Requirement	Compliance Achieved[1]	
	2017-2018	2018-2019 to date[2]
Bacteriological compliance	No[3]	No[4]

Notes: [1] The compliance year runs from 1st July to 30th June. [2] Lutra assessment based on information available. [3] Maximum interval between samples exceeded. No positive *E.coli* results from samples taken. [4] Positive *E.Coli* samples during incident.

3.4 Summary

At the time of the incident the plant was not compliant with the DWSNZ[1] and in fact had never been compliant with the DWSNZ. Sampling errors or omissions meant the supply zone was non-compliant with DWSNZ. Operators were assessed by the DWA and found not to be competent to calibrate instruments. Record keeping was assessed by the DWA as being non-conforming.

[1] As assessed by Lutra on information available.

4 Description of Incident

4.1 Incident Timeline

A timeline of the incident is presented in Table 4.

Table 4 – Incident Timeline

Time	Event	Comments
Wednesday 16th Jan 09:50	Sample taken at Martinborough school with following results[2]: • <1 MPN/100mL *E.Coli* • 19 MPN/100mL Total Coliforms • 750 cfu/mL HPC @ 35 degrees • 5700 cfu/mL HPC @ 22 degrees	Results received on 17th due to lab processing time. SWDC report that the sample point is on the school lateral and maintenance was undertaken around the time of this sample. No action taken.
Wednesday 23rd Jan 10:40	Sample taken at Martinborough water treatment plant (treated water) with following results: • <1 MPN/100mL total Coliforms • <1 cfu/mL HPC @ 35 degrees • 1 cfu/mL HPC @ 22 degrees	Results received on 24th due to lab processing time. *E.Coli* is not tested for at the plant. The next sample at the plant was taken on the 29th Jan.
Wednesday 23rd Jan 11:00	Sample taken at Martinborough school with following results: • <1 MPN/100mL *E.Coli* • <1 MPN/100mL total Coliforms • 1 cfu/mL HPC @ 35 degrees • 39 cfu/mL HPC @ 22 degrees	Results received on 24th due to lab processing time.
Wednesday 23rd Jan 18:08	Power cut occurs. UVT analyser fault at water treatment plant causes loss of UVT signal.	Power cut occurred from 18:08 to 21:00.
Wednesday 23rd Jan 18:08 to 23rd Jan 21:08	UVT analyser remains out of service. Bore water is pumped to supply without UV treatment.	

[2] *E.Coli* must be non-detectable. It is an immediate DWSNZ compliance failure if they are present. Total coliforms should be non-detectable but it is not a DWSNZ compliance failure if they are detected. Heterotrophic plate counts (HPC) are used as an indicator of change in a reticulation system. They are not included in DWSNZ. A non-chlorinated system should target less than 500 cfu/mL.

Wednesday 23rd Jan 21:08 to 23rd Jan 23:02	Plant stopped.	
Wednesday 23rd Jan 23:02 to Thursday 24th Jan 14:28	UVT analyser remains out of service. Bore water is pumped to supply without UV treatment.	
Thursday 24th Jan 15:00	The operations staff are reported to have entered a manual UVT of 95% into the UV controller to enable its operation.	
Tuesday 29th Jan 10:50	Sample taken at Martinborough water treatment plant (treated water) with following results: • <1 MPN/100mL *E.Coli* • <1 MPN/100mL total Coliforms • 3 cfu/mL HPC @ 35 degrees • 120 cfu/mL HPC @ 22 degrees	Results received on 30th due to lab processing time. Previous sample taken on 23rd Jan @ 10:30. No samples taken between 23rd and 29th.
Tuesday 29th Jan 11:15	Sample taken at Martinborough school with following results: • 2 MPN/100mL *E.Coli* • 5 MPN/100mL total Coliforms • 51 cfu/mL HPC @ 35 degrees • 220 cfu/mL HPC @ 22 degrees	Results received on 30th due to lab processing time.
Wednesday 30th Jan 16:17	SWDC receive notification of *E.Coli* detection in water supply.	
Wednesday 30th Jan 16:53	SWDC notify Regional Public Health (RPH) by email.	
Wednesday 30th Jan 17:00	Sample taken at Martinborough school with following results: • <1 MPN/100mL *E.Coli* • <1 MPN/100mL total Coliforms • 2500 cfu/mL HPC @ 35 degrees • 2000 cfu/mL HPC @ 22 degrees	Results received on 1st Feb 10:30 due to lab processing time.

Wednesday 30th Jan 17:15	Sample taken at SWDC offices with following results: • <1 MPN/100mL total Coliforms • 10 cfu/mL HPC @ 35 degrees • 43 cfu/mL HPC @ 22 degrees	Results received on 1st Feb 10:30 due to lab processing time. *E.Coli* is not tested for.
Thursday 31st Jan 09:00	Sample taken at Martinborough school with following results: • <1 MPN/100mL *E.Coli* • <1 MPN/100mL total Coliforms • 570 cfu/mL HPC @ 35 degrees • 620 cfu/mL HPC @ 22 degrees	Results received on 1st at 10:30 due to lab processing time.
Thursday 31st Jan 09:30	Sample taken at SWDC offices with following results: • <1 MPN/100mL total Coliforms • 22 cfu/mL HPC @ 35 degrees • 18 cfu/mL HPC @ 22 degrees	Results received on 1st at 10:30 due to lab processing time.
Thursday 31st Jan 10:30	RPH and SWDC phone discussion held on investigating source and confirming remedial action at school (alternative water source provided).	RPH sought confirmation alternative water source had been provided to the school.
Thursday 31st Jan 14:00	Sample taken at reservoir sample tap with following results: • 2 MPN/100mL *E.Coli* • 12 MPN/100mL total Coliforms • 7 cfu/mL HPC @ 35 degrees • 28 cfu/mL HPC @ 22 degrees	Results received on 1st at 13:36 due to lab processing time.
Friday 1st Feb 13:36	SWDC receive notification of *E.Coli* detection in reservoir sample tap sample taken on 31st. RPH and SWDC hold a phone discussion on further positive result and requirements for remedial action (Boil Water Notice).	
Friday 1st Feb 14:00	Boil Water Notice issued and source of alternative water supplies organised in consultation with RPH.	
Friday 1st Feb to Tuesday 5th Feb	Samples taken daily at multiple locations in the network. *E.Coli* was detected in each of the daily samples from the reservoir sample tap. Counts of 2,3,4 and 1 MPN/100mL. SWDC investigated potential contamination routes.	

Saturday 2nd Feb	Martinborough Country Fair. Tankers provided as alternative water source (filled with water from Masterton District Council).	
Sunday 3rd Feb	Wellington Water offers SWDC assistance with *E.Coli* response. Multiple Wellington Water emergency water bladders deployed.	
Saturday 2nd Feb 11:15 to Sunday 3rd Feb 08:00	UV plant operating at approx. half required UV dose.	No explanation provided by SWDC.
Monday 4th Feb	*E.Coli* detected at Martinborough golf course (1 MPN/100mL) and Fairway Drive (1 MPN/ 100mL).	Results received on 5th due to lab processing time.
Monday 4th Feb	Formal request for assistance from SWDC to Wellington Water	
Monday 4th Feb	Reservoirs sequentially chlorinated to 6mg/L of free available chlorine and limited area of the reticulation system in the vicinity of the reservoirs also chlorinated.	
Tuesday 5th Feb	SWDC, Wellington Water workshop. Plan put in place to review all potential contamination sources and eliminate or mitigate all identified risks. Possible sources of contamination identified by the group: • UV plant malfunction allowing untreated source water into supply; • Ingress in to reservoirs; • Backflow; • Air valves; • Loss of system pressure due to system shutdowns. Extensive sampling programme commenced. Boil Water Notice lifting plan development commenced.	
Tuesday 5th Feb	SWDC, RPH and Wellington Water teleconference.	Workshop discussion

Wednesday 6th Feb	SWDC, RPH and Wellington Water teleconference.	Progress and situation update.
Thursday 7th Feb	SWDC, RPH and Wellington Water teleconference.	Progress and situation update.
Thursday 7th Feb 17:00	Wellington Water received first UV plant performance data.	
Friday 8th Feb	Issues with UV plant performance identified in the data. Continued work on boil water notice lifting plan.	
Friday 8th Feb	SWDC, RPH and Wellington Water teleconference.	
Saturday 9th Feb	Reservoir cleaning continues.	
Sunday 10th Feb 10:30	SWDC, Wellington Water, RPH and Lutra teleconference.	
Sunday 10th Feb 21:50	UV plant performance data for February 2019 received.	
Monday 11th Feb 11:00	SWDC, Wellington Water and Lutra meeting at SWDC offices. RPH dialled in. Urgent review of UV plant performance & controls initiated. Lutra assistance commenced.	
Monday 11th Feb	Reservoirs 2 and 4 superchlorinated then fully drained.	10 mg/L of free available chlorine for not less than 12 hours.
Monday 11th Feb	SWDC, Wellington Water, RPH and Lutra teleconference.	Update on work completed, issues identified, plan to lift BWN
Tuesday 12th Feb	Reservoir cleaning continues.	
Wednesday 13th Feb	Reservoir 1 superchlorinated then fully drained.	10 mg/L of free available chlorine for not less than 12 hours.
Wednesday 13th Feb	Meeting to review plan to lift boil water notice. Regional Public Health, SWDC, Wellington Water and Lutra. Plan agreed.	
Wednesday 13th Feb	UV plant performance data received for 2018.	

Wednesday 13th Feb & Thursday 14th Feb	Lutra engineers attend site to perform initial checks on UV plant.	Large number of operational and control issues identified requiring software changes.
Wednesday 13th Feb	RPH, Lutra and Wellington Water meet in Wellington and agree plan to lift the boil water notice.	
Thursday 14th Feb	Reservoir 3 superchlorinated then fully drained.	10 mg/L of free available chlorine for not less than 12 hours.
Friday 15th Feb	Software changes made remotely by Qtech. Changes not validated or tested.	Collective agreement (SWDC, Wellington Water and Lutra) that the plant was producing DWSNZ compliant water and that flushing programme could start.
Friday 15th Feb & Saturday 16th Feb	Flushing of reticulation system during evening and in to the night by Citycare and Wellington Water staff. Flow management issues and water quality issues caused plant to shut down. Plant could not be restarted. Flushing ceased. A sample taken at Nelson Rd after the flushing had a positive *E.Coli* result (1 MPN/100mL).	Sample taken at Nelson Rd on 15th Feb at 23:05. Results received 17th Feb.
Saturday 16th Feb	Plant restarted manually. Abandonment of flushing programme.	
Sunday 17th Feb	Flushing of remaining reticulation system during evening and in to the night. 3 days of extensive *E.Coli* testing started after flushing completed. Nelson Rd was re-flushed, and three samples were taken on the 17th, 18th and 19th all of which were clear.	
Monday 18th Feb	Lutra engineers attend site and perform commissioning and UV plant validation checks. UVI reference sensor not available for UVI sensor check (DWSNZ monthly compliance requirement). One was borrowed from Carterton DC to allow the checks to be undertaken.	Unable to perform full checks due to unavailability of system control and data acquisition (SCADA) programmer. Collective agreement (SWDC, Wellington Water and Lutra) that the plant was producing DWSNZ compliant water at this stage.

Tuesday 19th Feb	Lutra engineers attend site with independent SCADA programmer, fix issues and perform remaining commissioning checks.	Collective agreement (SWDC, Wellington Water and Lutra) that the plant was producing DWSNZ compliant water at this stage.
Thursday 21st Feb	Boil water notice lifted in consultation with RPH after 3 days of clear *E.coli* samples.	

4.2 Probable Cause

The most probable cause of the contamination incident was the malfunction of the UV plant on the 23rd and 24th January 2019 allowing untreated water to enter the supply network and charge the storage reservoirs. However, it should be noted that the cause cannot be definitively identified. It is still possible that the contamination occurred within the network itself (e.g. backflow, air valves).

4.3 Water Treatment Plant Operation on 23rd and 24th January 2019

Given that the malfunction on the UV plant on the 23rd and 24th January was the most probable cause of the incident a more detailed review of the actions of the plant operator(s) was required. A timeline was developed from the operator's account of the power failure on the 23rd January 2019 (Citycare, 2019) and is presented in Table 5.

Table 5 – Operator notes on power cut

Time	Action (as noted by Operator)	Comments
23/1/19		
18:00	Power cuts in South Wairarapa and Masterton.	
18:09	Common Lamp Failure alarm at Ruamahanga Pump Station UV site.	
18:19	Ruamahanga Pump Station site battery Low alarm.	
18:40	Operator arrived at site.	
19:04	Operator contacts GVElectrical requesting assistance – he is told that someone will get back to him.	
19:11	Operator contacts second Operator for advice on the next course of action. Second Operator advised that the WTP would "probably resume normal production when the power came back on" and contacts the SWDC Assets and Operations Manager on how critical it was to get the power back on.	The lack of knowledge of how the plant would respond to power failure is concerning.
	GVE rang back saying he was available if required.	

19:33	Operator contacted SWDC Asset and Operations Manager and was advised that the reservoirs had 3 days storage and to “leave any remedial work to the next day”.	It is not clear whether the plant was left in a state where it would restart if the power came back on.
	Operator contacted second Operator again and relayed instructions received from the SWDC Asset and Operations Manager and locked up the WTP.	
20:30	GVE called again and was told that remedial work would be carried out the next day.	
21:08	Power was restored and UV common alarm received by the operator on his way home.	The operator interpreted this to be the “return alarm” that indicated that the UV was functional and no longer in an alarm state.
21:19	Pump 4 fault received by the operator indicating that the plant was now only running on bore 3.	
24/1/19		
07:30	Operator attends site and clears pump 4 fault and notices that UVT meter is not displaying the usual screen. Operator tries to reset the UVT meter several times without success. Operator checks the UV units and may have cleared a fault on UV One display.	
08:15	Operator arrives at SWDC and first discusses the UVT fault with second Operator.	
13:00	Operator meets second Operator on site, and they try to reset the UVT meter without success. Second Operator noticed that UV two is not dosing and tried stopping and starting the unit several times.	This is a considerable time lag between noticing a problem with a critical piece of equipment and the action
	They called the Berson agent (Davey). He told them how to put in a fixed UVT value into the UV system so it would dose “correctly”. The Berson agent made the comment that the UV should not have started without a UVT value.	Value of 95% entered. Record data was later shown to be inaccurate due to incorrect scaling of the UVT reading in the Datran control system.
	The Berson agent provided all the operating values that had been disrupted by the power outage. Two values were required from the manufacturer that were provided the following Monday to get the UV operational again.	PLCs and control systems should be protected during a power failure so that data is not lost.

5 Potential Intervention Points

In evaluating the events and actions before, during and after the incident, a benchmark was required. The public inquiry into the Havelock North contamination incident identified six principles for safe drinking water (Government Inquiry into Havelock North Drinking Water, 2017) which were used as that benchmark. These are repeated here for information:

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.

Principle 2: Protection of 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.

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.

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.

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.

Principle 6: Apply a preventive 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.

Potential intervention points that may have prevented the incident occurring have been identified and are presented in Table 6.

Table 6 – Potential Intervention Points Prior to the Incident.

Potential Intervention Point	What should have been done?
Decision to not provide residual disinfection	Chlorination of the supply is essential to provide a robust multi-barrier treatment process and to protect against contamination of the reticulation system. If chlorination had been a part of the Martinborough WTP this incident would not have happened. Principle 3: maintain multiple barriers against contamination; Principle 5: Suppliers must own the safety of drinking water and Principle 6: Apply a preventative risk management approach.
Plant design	The design should have provided a means to demonstrate that flow was not by-passing UV treatment. Limit switches should have been installed on the UV reactor isolation valves and the plant by-pass should have been removed. Principle 5: Suppliers must own the safety of drinking water.
Plant construction record documents	A complete set of construction record documents should have been developed, including P&IDs, wiring diagrams and functional description. The standard of documentation was found to be very poor and made fault finding during the incident challenging. Principle 1: A high standard of care must be embraced
Plant labelling	Electrical and control cables should be clearly labelled. The plant cabling was found to be unlabelled and in a very untidy state making fault finding during the incident challenging. Principle 1: A high standard of care must be embraced
Plant programming and commissioning	A functional description should have been prepared. Factory acceptance test (FAT), site acceptance test (SAT) and full commissioning checks should have been completed and documented for the original UV installation and for the UV modifications in April 2018. Clearly none of these were performed since there was found to be a basic lack of understanding of the DWSNZ compliance requirements. A number had either not been programmed in at all or had been programmed incorrectly. Principle 1: A high standard of care must be embraced

Reliance on one person for plant control and SCADA programming	A SCADA maintenance and support system should have been set up without reliance on a single individual at the automation company. The vulnerability of the current arrangements became apparent during the incident when the sole person with knowledge of how the system operates was not available for critical testing. Principle 1: A high standard of care must be embraced and Principle 6: Apply a preventative risk management approach.
Operations and maintenance manuals.	An operations manual with clear description of how the plant operates, how it will respond to failures and with troubleshooting guides should have been prepared. Had this information been available, the operator may have been able to refer to the documents and provide a better response to the power failure and UVT instrument failure. Principle 1: A high standard of care must be embraced.
Lack of UVI reference sensor and training to carry out reference sensor checks	SWDC and Citycare should have UVI reference sensors available and staff should be trained in their use. UVI sensor reference checks are a monthly DWSNZ compliance requirement. Neither SWDC or Citycare had a UVI reference sensor at the time of the incident. Citycare staff did not appear to be trained in the UVI reference check process and records of previous checks were not available for review. Principle 1: A high standard of care must be embraced; and Principle 5: Suppliers must own the safety of drinking water.
No authorised staff available for calibrations and standardisations.	Operations staff should be assessed as competent to undertake all instrument calibrations and standardisations. This should cover turbidity, UVT and UVI sensor checks for UV plants. Citycare staff were assessed as not competent to carry out calibrations and standardisations by the DWA in accordance with the Drinking Water Standards in November 2018. It is noted that the DWA only audited the operators on turbidity, pH and FAC analysers since they do not cover competency for UVI sensor checks or for UVT calibrations. Principle 1: A high standard of care must be embraced.
Calibration and standardisation records missing	All calibration and standardisation activities should be recorded, performed and tracked according to a schedule. The DWA identified non-conformances with the frequency of calibration activities and with record keeping, noting problems with missing and incomplete records. Principle 1: A high standard of care must be embraced; and Principle 5: Suppliers must own the safety of drinking water.

DWSNZ compliance reporting spreadsheet incorrect	All compliance reporting should be based on a validated and quality-controlled procedure. The spreadsheet used by SWDC to report on compliance was found to contain multiple errors which under-reported non-compliance. Principle 1: A high standard of care must be embraced.

Potential intervention points during the incident have been identified and are presented in Table 7.

Table 7 – Potential Intervention Points During the Incident.

Potential Intervention Point	What should have been done?
First Detection of *E.coli*	A boil water notice should have been issued immediately[3]. The presence of *E.coli* means that faecal contamination of the water has occurred and any delay in issuing the boil water notice risks the health of the community. Principle 5: Suppliers must own the safety of drinking water.
Power cut causing plant shut down	Operators should know how the plant responds to power outages and what is required to protect public health. A more vigilant approach should have been taken with the plant being isolated until a detailed examination of the problems and remedial action could be undertaken. Principle 4: Change precedes contamination.
Operator notices fault with UVT instrument and fails to take immediate action.	This should have led to an immediate plant shutdown as a critical piece of equipment was not functioning correctly. Principle 5: Suppliers must own the safety of drinking water.

[3] Note this is a Lutra opinion. RPH states that for an *E.Coli* transgression in the distribution zone, the DWSNZ requires an investigation of cause and remedial actions. A boil water notice is one action to be considered based on initial assessment of cause.

6 Corrective Actions

The investigation of the contamination incident as documented in this report has highlighted a number of corrective actions which should be implemented. These are presented in Table 8 and are linked to the 6 principles of safe drinking water.

Table 8 – Corrective Actions

No.	Details
Principle 1: A high standard of care must be embraced	
1.1	SWDC should review the importance of drinking water supply within their organisation and those of their contractors specifically: 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 perform their duties including calibrations.
1.2	Ensure that the plant documentation is current and relevant, specifically: a) Ensure the process schematics (P&IDs) are available and current. b) Ensure the functional description describing plant operation is available and current. c) Provide a detailed operations manual that details the plant functionality, troubleshooting and standard operating procedures for the operators. d) Provide a schedule of maintenance checks, verifications and calibrations for the whole plant.
1.3	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: a) Use an independent compliance reporting system to report compliance.
1.4	Replace existing outdated control system with a modern programmable logic controller (PLC) and SCADA system, specifically: 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.

1.5	Ensure that calibrations and verifications are carried out and recorded in accordance with the standards, specifically: 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.
Principle 2: Protection of the source water is of paramount importance	
2.1	SWDC should perform a catchment risk assessment and source protection zone study to develop a better understanding of the source risk.
Principle 3: Maintain multiple barriers against contamination	
3.1	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.
Principle 4: Change proceeds contamination	
4.1	Ensure operators, supervisors, and managers are sufficiently trained to understand the importance of change on a treatment plant, specifically: a) What constitutes a change. b) What action to take in the event of a change. c) Authority of operators to respond to a change. d) Understanding the change cannot compromise drinking water safety.
Principle 5: Suppliers must own the safety of drinking water	
5.1	Operators, supervisors and managers must understand their drinking water supply and understand the importance of each critical element, specifically: a) Understanding critical instruments and their function in the water supply. b) Understanding how the plant will respond to upset conditions (e.g. resumption of power after a power cut). c) Eliminate the ability to by-pass the UV treatment process. d) Understanding that a positive *E.coli* means the water is contaminated with faecal matter.
Principle 6: Apply a preventative risk management approach	
6.1	Undertake a systematic assessment of risks throughout the drinking water system, specifically: a) Identify source risks, treatment risks and reticulation risks. b) Identify mitigation measures for each risk. c) Monitor the performance of each barrier.

7 Conclusion

The seriousness of this incident cannot be overstated. It is a matter of luck that this was not another Havelock North[4] or a Walkerton[5]. *E.Coli* is an indicator organism. It indicates the presence of faecal material. It indicates the likely presence of pathogenic bacteria and some strains of *E.Coli* themselves can be deadly (*E.Coli* O157:H7).

E.Coli was present in the Martinborough system for **at least** three days before a boil water notice was put in place.

This incident has highlighted shortcomings in the design, operation and management of the Martinborough water supply system.

The incident response and management was largely reactive and unplanned until Wellington Water became involved and provided a risk based rationale to the decision making process.

It is understood that SWDC have a wish to improve their performance and that of their contractors. To this end they have committed to installing a manganese removal plant within the next 6-12 months, which will enable full time chlorination. In addition to this commitment, SWDC should adopt the six fundamental principles of drinking water safety for New Zealand and consider implementing the corrective actions presented in this report.

[4] The Havelock North incident occurred in August 2016. Campylobacter contamination caused approx. 5,500 (33% of the population) people to be violently ill and was linked to the deaths of three people.
[5] The Walkerton incident occurred in April 2000. *E.Coli* (O157:H7) and Campylobacter contamination caused 2,500 people (50% of the population) to get ill and seven people died.

8 References

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Appendix 4 - SWOT analysis

Strengths	Weaknesses	Opportunities	Threats
What is good about the current SWDC approach?	*What issues does SWDC face right now?*	*What could be improved by working with Wellington Water?*	*What issues would there be in working with Wellington Wate?* *What would eth future risks be?*
Agile (small but nimble) - make thinsg happen	Lack of continuous access to specialist skills	Improved asset management systems and information	Lose connection to other services - roading, FM etc. (all eggs in one basket)
Local community cohesion	No network redundancy	Better service resilience (bladders)	Perception of loss of control or forgotten about (no self-determination)
Water meters (reduce consumption)	Water conservation is limited	Procurement, project, contract and risk management	SWDC not mattering in a national emergency response (v Wellington)
Keeping the network going in little resource (cheap to run)	Staff retention and development	Help with climate change preparedness	WWL too hierarchical - too long to get a response etc.
Network knowledge	Manganese in Martinborough water	Strengthen comms (pro-active, current material, capacity etc.)	Distance and separation
Future proofed and scaleable network (25yrs+)	Limited process management	Multiple Chief advisors (including consulting panel)	Getting the right level of support
Irrigation of treated wastewater	Exposure to climate change	More resources for long term planning and strategy development	Cost increase
Better knowledge from Whaitua	Condition of Lake Wairarapa	Tactical asset management thinking (resilience and redundancy)	Conflict of WWL way and local community
Good knowledge or resources and contacts	Community buy-in to wastewater approach (understanding)	Global perspective and visibility (e.g. Scottish Water)	Subject to five other owners
Tourist attraction/destination	Limited consent capability - rely on consultants	Support for process quality and standardisation	Not communicating our rationale properly (for joining WWL)
Multiple networks (towns) to aid resilience	International businesses (vineyards) use our water	Access to greater pool of water resources (broader relationships)	Ability to access region from Wellington if major weather event
International businesses (vineyards) use our water	Single POC with accountability (Lawrence)	Stronger advocacy (e.g. Central Govt, GWRC)- more equal	WWL lack of expertise in water races, WW disposal to land and water meters
Single POC with accountability (Lawrence)	Limited time for longer term strategies	Customer Hub providing a seamless service (via SWDC contact)	Cultural misalignment
Lower service levels required by rural residents	Community understanding of stormwater system	Accountability for consents with WWL	Perceived loss of local staff
Growing economy and community growth - supported by water	Ability to clearly demonstrate compliance	Opportunity for WWL to test ideas or innovations	Perception once in, can't get out
Sustainable water sources	Low advocacy to Central Govt/GWRC	Growth opportunities for SWDC staff	Metropolitan answers to rural problems
Ability to respond due to proximity	Limited budget for new works/big steps	Access to specialist skills when needed	
Current relationship with WWL	Challenging employment - attract and retain	CDC/MDC join later too - SWDC leading the way	
Simple stormwater system	Limited access to new technologies	Access to Crown money	
Low overheads	No systematic approach to network planning	Improved buying power (commercial leverage)	
Closer to local community (and part of)	Cannot grow own capability - reached limit to push standards	Raise organisational thinking to a strategic level	
	Rudimentary stormwater system	SWDC get the repuation for innovation and quality, depth of capability	
	Limited supplies may impact local businesses	Access to 'overhead capacity' (paid for now)	
	Network developed in an ad-hoc manner	Create alternative resilience centre	
	High network infiltration	Retain local decision-making	
	Flat topography	Learning for both sides	
		Fast track move to leading systems (Asset Mgt)	
		Robust systems, approaches and science	
		Quick access to Fulton Hogan capacities (national resources)	
		Access to the internet of things	

Appendix 5 – Responses to perceived threats

Threats	WWL approach
Lose connection to other services - roading, FM etc. (all eggs in one basket)	Wellington Water manage close relationships with similar service providers (our wider whanau) and would look to extend these relationships into SWDC.
Perception of loss of control or forgotten about (no self-determination)	WWL currently engage customers through our customer panel and other local interest groups. It should be noted that asset ownership remains with SWDC, as do all investment decisions. A Service Level Agreement will be discussed and agreed with SWDC to drive services and response levels.
SWDC not mattering in a regional emergency response (v Wellington)	We'd look to maintain a local team to service SWDC and use the wider resource pool available to us, through Fulton Hogan and other contractors as well as WREMO. WWL would also help promote household resilience and potentially extend our current capabilities and educational material to promote local resilience in advance of an event.
WWL too hierarchical - too long to get a response etc.	WWL have a rather flat structure. Local team would have appropriate level of 'authority to act'. Access to specalist resources may take longer, however, as with current Council shareholders, it is planned in advance to avoid any delay and other work prioritise appropriately.
Distance and separation	As above, a local team would be developed and used, with suitable authority to act. Ongoing management supervision and engagement, single IT systems, and employee engagement etc. Suitable technology adoption will also help.
Getting the right level of support	A full Service Level Agreement will be in place between WWL and SWDC, which will outline service levels expected by SWDC. A GM will be assigned as a relationship manager for SWDC to escalate issues, as they arise. Investment decisions will remian with SWDC.
Cost increase	WWL undertake to provide services at no extra cost to SWDC. Ongoing review of costs will eb undertaken with SWDC. Capex investment decisions sit with SWDC.
Conflict of WWL way and local community	There will be differences in approach, including some listed as opportunities for improvement. Customer panel, clear ratepayer communications and socialising approaches with SWDC prior to going to ratepayers to identify possible issues will help address this too.
Subject to five other owners	And also having an equal say to those five bigger Councils. SWDC will still own the assets and determine their own investments made. Influence of other Councils will happen corporately for Wellington Water, not directly on SWDC or its water network.
Not communicating our rationale properly (for joining WWL)	A full communications strategy will be developed. This may include community workshops and comms advice as agreed with SWDC.
Ability to access region from Wellington if major weather event	As above, a local team would be developed and used, with suitable authority to act.
WWL lack of expertise in water races, WW disposal to land and water meters	We'd be looking to keep the current resources used in the future approach - there should be no loss of experience or knowledge. Although not services provided to current Councils, resources in WWL also have prior experience. This includes our Risk and Assurance Manager who used to manage Horowehnua's wastewater disposal to land systems, as an example.
Cultural misalignment	Workshops to date suggest this is not the case. Will be monitored.
Perceived loss of local staff	As above - look to keep staff employed.
Perception once in, can't get out	This is covered in the shareholder agreement - has mechanisms for separation.
Metropolitan answers to rural problems	Sometimes they may be needed - adopting the different, but only where appropriate. The answers to the problems will be discussed with SWDC prior to being implemented - a partnership of ideas, not dictated solutions.

SOUTH WAIRARAPA DISTRICT COUNCIL

17 APRIL 2019

AGENDA ITEM B2

RECOMMENDATIONS FROM COMMITTEES

Purpose of Report

To provide an opportunity for members to consider recommendations received from other committees.

Recommendations

Officers recommend that the Council:

1. *Receive the Recommendations from Committees Report.*
2. *That the following recommendations from the Hearings Committee held 27 March 2019 be considered.*

Recommendation 1 – Hearings Committee 27 March 2019	*DC2019/42*
To recommend to South Wairarapa District Council to retain the status quo in the meantime and undertake further consideration of our options for the future three waters management in the coming months.	

1. Background

1.1 Hearings Committee

The Council officer's report and submissions relating to the above recommendation was included in the agenda for the Hearing Committee hearing held 27 March 2019. This agenda (including submissions) is available for viewing on Council's website under the following link.

Council Agenda and Minutes 2019 | South Wairarapa District Council
(http://www.swdc.govt.nz/council-agenda-and-minutes-2019)

Hearing minutes are attached to in Appendix 1.

2. Appendices

Appendix 1 – Hearings Committee Minutes 27 March 2019

Contact Officer: Suzanne Clark, Committee Advisor
Reviewed By: Jennie Mitchell, Acting Chief Executive Officer

Appendix 1 – Hearings Committee Minutes 27 March 2019

SOUTH WAIRARAPA DISTRICT COUNCIL HEARING COMMITTEE MEETING MINUTES

27 March 2019

Present:	Mayor Viv Napier (Chair), Councillors Brian Jephson (until 4:12pm), Lee Carter, Pam Colenso, Margaret Craig, Mike Gray, Pip Maynard, Colin Olds, Colin Wright and Ross Vickery.
In Attendance:	Paul Crimp (Chief Executive Officer) and Suzanne Clark (Committee Secretary).
Conduct of Business:	The meeting was held in the Supper Room, Waihinga Centre, Texas Street, Martinborough and was conducted in public between 2:00pm and 4:30pm.

Open Section

1. Affirmation

Deputy Mayor Brian Jephson read the South Wairarapa District Council affirmation.

2. Apologies

There were no apologies.

3. Conflicts of Interest

It was noted that Mr Crimp's son worked for Wellington Water.

4. Submissions Hearings as per Schedule

The Mayor and councillors heard verbal submissions from delegations in support of their written submission as follows:

- Perry Cameron
- Michael Perry (also representing Susan Perry)
- Warren Woodgyer (also representing Ted and Eileen Ward)
- Richard Rudman
- Ron Shaw on behalf of Wairarapa Voice
- Barry Kempton

5. Officers Summary of Wellington Water Proposals Report

Council adjourned for afternoon tea at 2:55pm.

Council reconvened at 3:13pm.

Councillors reviewed all written and verbal submissions (attached in Appendix 1).

Mr Crimp answered councillor concerns about the costs of becoming a shareholder of Wellington Water not being included in the Statement of Proposal (SoP) by clarifying that the Long Term Plan (LTP) financial statements were the costs going forward and that there were no ancillary costs of any materiality. Mr Crimp noted councillor comments about better linkages between the SoP to the LTP financials and that the opportunity to become a shareholder with Wellington Water was presented after the 2018/28 Long Term Plan had been adopted.

Councillors discussed other concerns including a need for wider and a longer period of communication with ratepayers and Māori, making a decision prior to central government direction, confusion between Water Wairarapa and the SoP's option of a Wairarapa wide three waters management option, better investigation of a Wairarapa wide option. The advantage of accessing additional technical expertise offered by Wellington Water was also discussed. Members noted that most submitters were against the proposal and it appeared that the public wanted more information and more time to consider the options.

Members noted that resolution DC2019/09 should refer to Greater Wellington Regional Council not Greater Wellington City Council.

HEARINGS COMMITTEE RESOLVED (DC2019/42):

1. To receive the Wellington Water Shareholding Hearing Report.
   (Moved Cr Jephson/Seconded Cr Colenso) Carried
2. To note the feedback from the public consultation.
   (Moved Cr Craig/Seconded Cr Maynard) Carried
3. To recommend to South Wairarapa District Council to retain the status quo in the meantime and undertake further consideration of our options for the future three waters management in the coming months.
   (Moved Cr Wright/Seconded Cr Carter)

6. Appendices

Appendix 1 - Submission Decisions

Confirmed as a true and correct record

……..(Mayor)

……..(Date)

Submission No.	Name of Submitter	Speaking	Status Quo	Wairarapa 3 waters delivery	Shareholder Wgtn Water	Comments in support of choice	Officer Comments	Council Comment
1	Peter Roberts	N	0	1	0	No comment	The SOP provides commenatry on this option	Noted
2	Tracey R Yandle	N	1	0	0	No comment	The SOP provides commenatry on this option	Noted
3	Tony Pritchard	N	1	0	0	Not adequately costed. Self governance being exported to Wellington	Paragraph 1 of the SOP indicated SWDC retains ownership of infrastructural assets. Para 4.3 of the SOP indicates SWDC would retain asset ownership, budgetary control, and service level setting. The impact of [becoming a shareholder] this option in relation to that forecast in the 2018/28 LTP would be minimal	Councillors noted that governance would remain with SWDC. Council officer's comment applies.
4	Perry Cameron	Y	0	1	0	Loss of control	Para 4.3 of the SOP indicates SWDC would retain asset ownership, budgetary control, and service level setting. The impact of [becoming a shareholder] this option in relation to that forecast in the 2018/28 LTP would be minimal	Councillors noted that the pace of consultation and provision of information had moved quickly, partially due to the indication by central government of new water legislation on the horizon. Council officers comment applies.
5	Jack Sheppard	N	0	0	1	SWDC has lack of capacity to adequately manage the assests.		Councillors noted that the SoP indicated existing staff were at capacity and that in the event of new legislation ratepayers would need to fund additional staff with the right skill set.
6	Adam Mattsen	N	0	0	1	Good oportunity. Specialist in the area.		Councillors noted that the SoP indicated existing staff were at capacity and that in the event of new legislation ratepayers would need to fund additional staff with the right skill set.
7	Dan Neemia	N	1	0	0	Cost increases. Loss of assests.	Paragraph 1 of the SOP indicated SWDC retains ownership of infrastructural assets. Para 4.3 of the SOP indicates SWDC would retain asset ownership, budgetary control, and service level setting. The impact of [becoming a shareholder] this option in relation to that forecast in the 2018/28 LTP would be minimal	Council officer's comment applies.
8	Barry Kempton	Y	1	0	0	No problem with current operation or cost.	The SOP outlines the benefits of becoming a shareholder, against the risks of retaining the status quo	Councillors recognised that Wellington Water did not have water races expertise and that Council had mitigated the risk by creating a Water Race Sub-committee.
9	Joanne Kempton	N	1	0	0	Does not seee any advantages to changing. Moroa Race should be operated by locals	The SOP outlines the benefits of becoming a shareholder, against the risks of retaining the status quo. The Water Race committees will be retained.	Councillors recognised that Wellington Water did not have water races expertise and that Council had mitigated the risk by creating a Water Race Sub-committee.
10	Penny Taylor	N	0	0	0	Does not want flouride in water	The decision to fluoridate water, or not will not be transferred to Wellington Water. Curently this sits with the local authority, though the decision may transfer to the Wairarapa DHB	Councillors noted that flouridation was not part of the proposal.
11	Regional Public Health	Y	0	0	1	Protection of infrastructure. Consistency. Strengthen ability of Council to meet standards.		Councillors noted the submission and alignment to central government's position.
12	Warren Woodgyer	Y	0	1	0	Poor design of Martinborough water supply.	The three waters output will still be lead and managed by SWDC. The current SWDC staff will be located in SWDC offices, so knowledge will be retained. One of the key benefits of joining WW will be resiliance during an event. The recent change in service delivery provider had as a key plank the ability to mobilise a large workforce in the event of an emergency. This service delivery provider already has a presence in the Wairarapa.	Councillors noted comments made about Martinborough's water design and situation.
13	Micheal Dennis Perry	Y	0	1	0	No comment	The SOP provides commenatry on this option	Councillors noted the benefit of using local publications to get Council communications distributed

Submission No.	Name of Submitter	Speaking	Status Quo	Wairarapa 3 waters delivery	Shareholder Wgtn Water	Comments in support of choice	Officer Comments	Council Comment
14	Eileen Ward	Y	1	0	0	No comment	The SOP provides commenatry on this option	Noted
15	Susan Perry	Y	0	1	0	No comment	The SOP provides commenatry on this option	Councillors noted the benefit of using local publications to get Council communications distributed
16	Ted Ward	Y	1	0	0	No comment	The SOP provides commenatry on this option	Noted
17	Richard Rudman	Y			0	Insufficient evidence to support Wellington Water	The SOP outlines the benefits of becoming a shareholder, against the risks of retaining the status quo. The Water Race committees will be retained.	Council noted the comprehensive submission and agreed that the link to the financial information provided in the SoP and the LTP could have been better highlighted.
18	Wairarapa Voice Inc	Y	1	0	0	Existing issues will transfer to Wellington Water. Revise current delivery model.	Paragraph 1 of the SOP indicated SWDC retains ownership of infrastructural assets. Para 4.3 of the SOP indicates SWDC would retain asset ownership, budgetary control, and service level setting. The impact of [becoming a shareholder] this option in relation to that forecast in the 2018/28 LTP would be minimal. Responsibility for addressing issues will still lie with SWDC, through service level setting and the LTP processes.	Council noted the comprehensive submission and acknowledged the seriousness of water noncompliance; this had been addressed with contractors. The cost of becoming a shareholder was confirmed as $50,000 for Class B shares, Class A shares were given to shareholders at no cost.
	TOTALS		**8**	**5**	**3**			