

Analysis of Three Waters in the Wellington Region

Scoping Report

June 2016

Wellington Water



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C/- Kay Baxter PO Box 5362 Wellington 6145 NEW ZEALAND

Mott MacDonald, L1, 23 Union Street, Auckland 1010, New Zealand PO Box 37525, Auckland 1151, New Zealand **T** +64 (0)9 374 1599 **w** www.mottmac.com



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1 Executive Summary

1.1 Introduction

In June 2015, the Local Government Commission announced that a region-wide amalgamation was off the table in Wellington. While the majority of submitters had opposed the proposal, many had put forward alternatives and others said they wanted some changes to enable better local government.

The Local Government Commission is taking a new approach to working with councils and communities. It is concentrating more on those local government functions that matter most in supporting effective and dynamic communities, and can help them realise their economic potential.

As part of this new approach the Commission has said, it will look at the key functions (transport, three waters, spatial and land-use planning, and economic development) to better understand how those functions affect the Wellington region.

In November 2015, the Local Government Commission engaged Mott MacDonald to undertake a scoping report study of the three waters function in the Wellington region. The region comprises the districts of:

- Greater Wellington Regional Council, Hutt City Council, Upper Hutt City Council, Porirua City Council and Wellington City Council, whose water services are delivered by Wellington Water (a jointly owned council controlled organisation);
- Kāpiti Coast, Masterton, Carterton and South Wairarapa Districts Councils which each deliver water services on their own behalf.

1.2 Key Findings

Wellington Water

Wellington Water is the largest water provider in the Wellington region, involving one regional council and 4 of the 8 territorial authorities in the region. The Wellington Water model is in its infancy but is showing good signs of providing a more efficient and effective service than those of the previous 'five councils singular approach' or its immediate precursor, Capacity Infrastructure Services Limited. The model of a 'trusted advisory service' built on key personnel has started the journey to provide the five councils with critical asset information on which they can plan key investment on a more informed regional wide basis. The establishment of a 'centre of excellence' model needs the right level of resource funding to build on the expertise, which initially attracts additional company costs. To recommend radical change at this point in time is likely to derail the progress made to date, and the current model needs stability and support to allow it to mature and develop.

The Wellington Water model should be given more time and support to develop and mature utilising the current delivery model. There are several key areas that need to be addressed to help advance the process as part of Wellington Water's maturity journey and provide a more effective service. There are also



several areas where changes could be implemented that would provide better value for money for the whole of the region.

Overall, the shareholders were happy with the progress made to date with Wellington Water. They felt that they were getting better value than previously in terms of the service provided. The phrase was very much "work in progress" but they felt overall better informed.

When considered against the benchmark of more mature water companies, the existing three waters model for the Wellington Region is not yet providing best value for rate-paying customers. There are differences in the level of service throughout the region (within the five Wellington Water councils as well as the region's four other councils), with standard practices and lessons learned shared only on an ad hoc basis, and with the purchasing of goods and services undertaken in isolation.

The long-term solution for the three waters model needs to be a more collaborative and integrated approach. This would require a more advanced position from Wellington Water's current maturity status. Good progress had been made and another round of significant change in direction at this time may derail the progress made to date. However, there are recommendations, which could help the model and the councils on their journey, and would provide better value for money for the rate-paying customers for the whole of the region through their implementation.

The biggest test of the current Wellington Water model will be implementation of increased resilience at a regional level. This may require councils to buy into cross-funding of investments, which may benefit some more than others, but might be necessary in the interests of the greater good/resilience for the region. The Wellington Regional Water Board Act 1972 provides for/enables cross-funding of investments within the bulk supply network across the region. Long term regional planning (and associated funding over 3 years rather than annually) will help inform regional decisions for investment and delivery, which may not have been delivered if projects were considered on a stand-alone basis.

Councils Outside Wellington Water

The surrounding models, outside Wellington Water, vary considerably in terms of population mass and locality. Of the councils that are not currently part of Wellington Water, Masterton, South Wairarapa and Carterton District Councils, are considering how they can be more effective from a more collaborative approach, outside of Wellington Water.

Some of the council water departments are too small to justify an asset management propriety IT system, whilst others have differing IT systems, hierarchies and asset standards. Kāpiti Coast District Council shares the same asset management IT system as Wellington Water and collaborative discussions are taking place on common hierarchies and definitions. Other councils' 3 Water departments could benefit from using similar products, processes and working procedures, and also from the lessons learned and development of best practice.



1.3 Wellington Water Solutions

The Wellington Water model is constrained in its annual funding structure. Currently there are weaknesses in the ability to fund and deliver long-term programmes of work from an overall financial point of view because projects are prioritised on a council by council basis. It is also burdened by the complexity of the requirements of five councils. This constrains how effective it can be in terms of reporting, investment prioritisation and procurement. The following solutions are proposed. Wellington Water should:

- Continue to implement a more collaborative procurement approach. Wellington Water has started the journey of implementing a procurement strategy, which will develop a more integrated supply chain resulting in efficiencies and more effective delivery.
- Provide three water input to council Long Term Plans by developing an overarching Wellington region long term plan with 3 to 5 year rolling funding agreement with councils plan
- Continue discussions with councils about implementing the unification of the Levels of Service.
- Further develop the 'centre of excellence' to establish a more informed client base and share best practice throughout all of Wellington.
- Wellington Water's owners should consider increasing the number of members within the Wellington Water Committee (without voting powers) to include other councils to share best practice and knowledge from a business perspective.
- Develop a standardised Asset Management Strategy and IT System. The standard asset management approach is a key enabler to the 'centre of excellence'. This is one of the successes of the Wellington Water model where all water personnel have been transferred into the company. This mass of expertise is key to continuous personnel development and attracting the right employees and experts in the future.
- Develop an education programme around the services provided by Wellington Water.
- The rate-paying customer relationship with Wellington Water needs to mature and develop. This will require discussions with councils about their relationship with customers and the degree to which Wellington Water could manage the customer relationship more directly, rather than via the councils Currently there is a layer of separation of the council. Through time and the implementation of good working practice, this needs to become seamless as more mature and active models use consultation and the willingness to pay by customers as part of future investment decisions.

1.4 Whole of Wellington Region Solutions

All councils within the Wellington region (including the 5 shareholding councils of Wellington Water) could benefit from a more collaborative approach to the way they deliver their three waters services. This benefit would be both from a more informed client perspective, technically as well as from an enhanced financial investment delivery position.

In the short to medium term there are six key areas that should be implemented by the councils to enable the provision and delivery of this benefit and provide an enhanced value proposition for the rate-paying customer long term. These are:



- Implement a more collaborative procurement approach. The level of collaborative procurement among the councils in the water sector is minimal. There is little evidence of this within the councils themselves and none on a multi council or programme basis, although Wellington Water is in the early stages of implementing its principal to contract arrangement which will bring regional benefits The implementation of more collaborative procurement by effectively engaging the supply chain will deliver savings through more effective working and economies of scale.
- Take part in unifying one standardised Asset Management Strategy, and long term IT systems to provide a consistent approach to managing risk and prioritising investment.
- Develop regional Wellington 10 year Long Term Plan for the whole of the region to enable all synergies and interdependencies to be captured under a three waters plan.
- Agree level of service the councils which wish to invest in some of which may be similar across the whole region
- Be active members of a centre of excellence to establish a more informed client base and share best practice throughout all of Wellington.
- Participate in sharing best practice and knowledge and being proactive in widening the objectives of the Wellington Water Committee beyond the boundaries of the existing 5 councils.

1.5 Medium to Long Term Recommendations

If this review were starting with a blank sheet of paper, we would not recommend the current Wellington Water Model. The main limitations of this model are:

- Non-standard working processes and systems across the 5 councils
- Restrictions associated with delivering programmes of work
- Funding restrictions based on an annual basis from each individual council
- Different asset management IT systems and working procedures
- Differences in levels of services among the 5 council customers
- Differences in reporting requirements for each of the councils
- The 5 councils objectives are not fully aligned in one plan

Given where the Wellington Water model is in the maturity curve (in its infancy), it is showing good signs of providing a more efficient and effective service the recommendations align with improvements to the current Wellington Water model.

Given this position and status of the maturity of the Wellington Water model, it is not, however, the best time to implement further changes. The scope for further changes in the medium to longer term should, however, form part of the recommendations of this report because of the potential for these to bring significant benefits to ratepayers. The owners of Wellington Water should be consider the following:

- Review ownership of the assets within the Wellington Water model
- Review the customer relationship with Wellington Water.



2 Scope

2.1 Scope

The scope of this commission was the undertaking of a strategic overview of the current delivery of water services across the wider Wellington region and the comparison of this to other relevant models in the following areas:

- Governance and shareholding
- Funding arrangements
- Organisational structure and service delivery model
- Asset management and service implications
- Service delivery to customers
- Risk and opportunity assessment.

A key part of the commission was the validation of the model from a regional point of view. Therefore, all of the key stakeholders were invited to take part in the consultation, being:

- one regional council and 8 territorial authority councils in the Wellington region
- Wellington Water Ltd.

2.2 The Team

Mott MacDonald

Mott MacDonald is a global management, engineering and development consultancy business that has 16,000 staff in 180 principal offices that provide local experts to 140 countries. Mott MacDonald has a specialist asset management advisory team working across multiple sectors internationally. With substantial water industry experience across many jurisdictions globally, Mott MacDonald provide strategic advice enabling organisations to manage their assets efficiently and effectively. The team that have prepared this report are outlined below.

Ed Ptolomey - Auckland Mott MacDonald Project Director and Asset management leader for Australia and New Zealand

Ed Ptolomey has over 22 years of experience in the water industry of which 17 years was working for the client Scottish Water where his role encompassed a variety of aspects such as asset management, Capex and Opex business change, commercial, maintenance and new build construction. He lived through and was part of the development of Scottish Water from the former local authority ownership. His experience in the UK water industry expands from the development of business plans to that of managing projects and programmes from feasibility stage through to project implementation on projects up to £225 million and programmes of work of £800 million. Ed is Project director and Asset Management leader at Mott MacDonald New Zealand Auckland.



Steve Couper – Auckland Mott MacDonald Water Practice Leader – Australia and New Zealand

Steve has 22 years of experience across a range of water supply and wastewater schemes. Steve's water scheme planning oversight has been valued by many clients across Australia and NZ. He has been a key Technical advisor to Watercare around trade waste charging and developing economic models based on asset performance. He has worked as part of Public Private Partnership (PPP) submission teams for developing schemes to provide water services to communities. He is currently Project Director for the Hamilton City and Waikato District Council network planning that Mott MacDonald is currently completing. Steve is a past president of Water NZ, the organisation that undertakes the national performance review for urban water services and was also on the steering committee for the Local Government NZ National Three Waters Project.

2.3 Definitions

Table 2.1: Acronyms and Definitions

Acronyms and I	
Three Waters	Water, wastewater and stormwater.
Appropriate Treatment	A localised treatment solution which complies to the resource consent
AMP	Asset Management Plan
Opex	Operational expenditure – the ongoing, routine costs incurred in managing an activity. It includes maintenance, loan servicing, depreciation and administration expenditure.
Capex	Capital expenditure
ССО	Council Controlled Organisation. An entity in which one or more local authorities control 50% or more of the voting rights or has the right to appoint 50% (or more) of the organisation's directors.
GW	Greater Wellington Regional Council
HCC	Hutt City Council
FTEs	Full time equivalent staff members.
LGA	Local Government Act 2002
LGC	Local Government Commission. The Commission is an independent statutory body whose main role is to promote good practice relating to a local authority or to local government generally.
LOS	Level of Service. In its 2007 publication Developing Levels of Service and Performance Measures, the National Asset Management Steering (NAMS) Group defines Levels of Service as the descriptions of the service output for a particular activity or service area against which performance may be measured. In broad terms it can be thought of as standards for service quality, delivery, reliability and resilience.
LTP	Long-Term Plan. 10 year plans that councils are required to prepare and update every 3 years. Current plans are being produced (in draft form) for the 2015-25 period.
Not-for-Profit	A not-for-profit organisation is one that does not earn profits for its owners. All of the money earned by or donated to a not-for-profit organisation is used in pursuing the organisation's objectives. Typically not-for-profit organisations are charities or other types of public service organisations. Note that a not-for-profit organisation may actually report a profit or income surplus in any given year so that it can raise funds for growth and investment to further benefit its objectives.
O&M	Operations and maintenance.



Acronyms and	Definitions
PCC	Porirua City Council
Sub-Region	The sub-region refers to the four districts of Hutt, Porirua, Upper Hutt and Wellington.
TLA	Territorial Local Authorities
UHCC	Upper Hutt City Council
VFM	Value for Money
WCC	Wellington City Council



3 Wellington Water

3.1 Local government in the Wellington region

3.1.1 Overview

There are nine¹ local government councils within the wider Wellington region. Figure 3.1 shows Greater Wellington Regional Council's boundaries and the territorial authority areas enclosed within the region. Their population distribution is a mixture of rural and urban centres. Masterton, South Wairarapa, and Carterton District Council all have fewer than 25,000 residents. Compared to the rest of the Wellington region, this group of three districts is substantially less populated.



The population distribution, and in particular its density, have a key relationship to water and wastewater infrastructure in terms of investment and the ability to maintain defined levels of service. The less populated communities tend to have greater lengths of pipework to service individual properties and require more localised solutions to ensure appropriate treatment. Generally, the assets are smaller treatment works and storage, more septic tanks and more pumping stations.

An overview of the Wellington councils with their current water services and 10 year annual average (2012 to 2022) capital investment forecast is shown in Table 3.1: Wellington Councils Asset Services Summary. One of the key areas of any water delivery model is the ability to manage the risk of failure

¹ Note: only a small part of Tararua District is located within the Wellington Region and so not covered by this report.



associated with an asset not being able to provide the necessary level of service to the rate-paying customer. The inability to manage risk could lead to catastrophic failure of the service, or failure to invest adequately over an appropriate timescale. Any water delivery model should address and maintain service such that the investment per person is at an acceptable level to its benchmarked peers.

Table 3.1: Wellington Councils Asset Services Summary

Council	Population 2013	Current Water Services Arrangement	Storm water Annual Average Capital Investment	Wastewater Annual Average Capital Investment	Potable Water Annual Average Capital Investment	Annual Average Total 3- Waters Capital Expenditure	Total Annual Average Investment Per Pop head
Greater Wellington Regional Council	471,315	Wellington Water	NA	NA	\$7.3m	NA	\$15.49
Hutt City Council	98,238	Wellington Water	\$2.805M	\$10.640M	\$3.994M	\$17.4M	\$177.01
Porirua City Council	51,717	Wellington Water	\$0.598M	\$3.490M	\$2.085M	\$6.2M	\$119.36
Upper Hutt City Council	40,179	Wellington Water	\$1.359M	\$3.886M	\$1.533M	\$6.8M	\$168.70
Wellington City Council	190,956	Wellington Water	\$4.964M	\$8.399M	\$11.68M	\$25.0M	\$131.15
Carterton District Council	8,235	Council	\$0.021M	\$0.486M	\$0.199M	\$0.7M	\$85.71
Kāpiti Coast District Council	49,104	Council	\$3.372M	\$3.137M	\$4.772M	\$11.281M	\$229.74.
Masterton District Council	23,352	Council	\$0.286M	\$2.457M	\$2.603M	\$5.5M	\$228.95
South Wairarapa District Council	9,528	Council and contractors	\$0.181M	\$1.355M	\$0.520M	\$2.1M	\$215.71

Source: Census, Statistics New Zealand (2013 populations) and Council LTCCP and AMPs.

Annual average investments between 2012 and 2022. South Wairarapa was over 3 year period and Hutt City over 7 year period. Hutt city wastewater includes significant investment in trunk mains between 2020 to 2022. A standard approach of summarising capital works only forms the basis of the financial averages from LTCCPs and AMPs.



3.2 Wellington Water Limited

3.2.1 Governance and shareholding

Wellington Water Limited (Wellington Water) was established in September 2014 as a result of a merger between Capacity Infrastructure Services and Greater Wellington Regional Council's water supply group. It is owned by the Hutt, Porirua, Upper Hutt and Wellington city councils and Greater Wellington Regional Council. The five councils are all equal shareholders for voting rights, but with different levels of ownership shares reflecting the different level of value of their water infrastructure. Wellington Water manages the drinking water, wastewater and storm water services of its council owners. It employs approximately 180 staff and manages expenditure of approximately \$175 million on behalf of clients to maintain and develop water assets with a book value of \$2.7 billion, and a replacement value of \$5.3 billion. The Wellington Water ownership and management structure is shown in figure 3.2 below.



Operations and customer service: water treatment, network improvement, fault management and

Figure 3.2: Wellington Water Ownership and Management Structure

Source: Wellington Water - Statement of Intent 2015-2018

customer service



3.2.2 Organisational Structure and Service Delivery Model

Wellington Water is governed by a board of independent directors. The chair of the board reports to the Wellington Water Committee, which is made up of a representative of each of the five shareholders.

3.2.2.1 Board of Directors

The Board of Directors' accountabilities include:

- Approving the company's strategy
- Ensuring the company is compliant with the law and solvency
- Making sure the organisation has the capability to perform
- Monitoring the company's performance and its relationships with and provision of services to client councils and others.

3.2.2.2 Wellington Water Committee

Representatives of the councils meet quarterly in the form of the Wellington Water Committee to discuss water issues and general progress. Each shareholder holds 20% of the voting shares of Wellington Water. The committee provides shareholder governance, regional oversight and provides guidance on Wellington Water's regional approach to issues and policy. Wellington Water provides a half yearly report to the Committee as required under the Local Government Act. The Wellington Water Committee (on behalf of the shareholders) prepares the letter of expectations for the company. These expectations are reflected in this Statement of Intent 2015-16 and are reported on, along with service performance outcomes, in the Wellington Water Committee quarterly as well as annually. Service performance outcomes are derived from council long-term plans, which in turn are influenced by the asset management planning work Wellington Water do.

3.2.2.3 Governance Structure

Figure 3.3 represents the relationship structures in the context of the Wellington Water service delivery. It shows linkages between the direction-setting of the governance bodies, the advisory support they provide to the councils, work done with councillors to achieve their visions for their communities and the work Wellington Water does delivering three waters network management to their clients' customers. Figure 3 only shows the main governance relationships. There are a number of other business meetings which support this governance process.



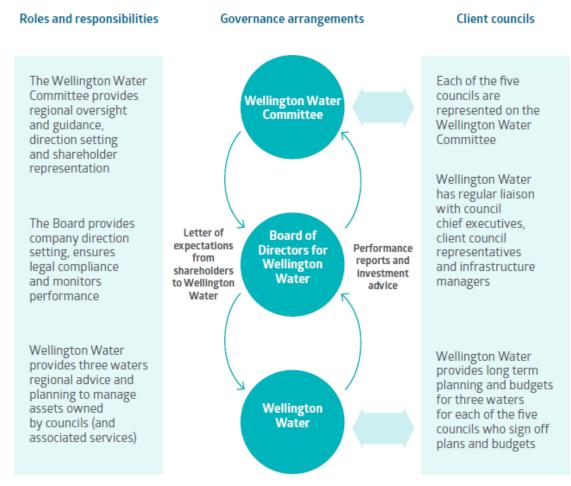


Figure 3.3: Wellington Water governance and shareholder relationships for service delivery

Source: Wellington Water - Statement of Intent 2015-2018

3.2.3 Council-Controlled Organisation

Wellington Water operates under the Companies Act 1993 and the Local Government Act 2002 (LGA) which have specific provisions for council-controlled organisations to:

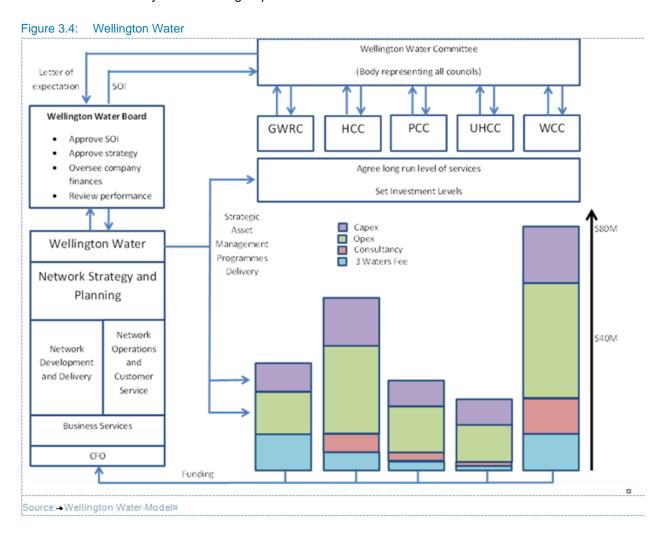
- achieve shareholders' objectives, both commercial and non-commercial
- be a good employer
- exhibit a sense of social and environmental responsibility by having regard to the interests of the community and endeavouring to accommodate or encourage these
- conduct affairs in accordance with sound business practices
- report on the intended levels of service and performance measures for providing water, wastewater and storm water services that need to be included in local authority long-term plans.



3.2.4 Funding Arrangements

All funding for the Wellington Water model is provided through the council members. Figure 3.4:

Wellington Water shows how this funding is invested and governed through the appropriate owner and categories of investment. It shows the complex communication relationships in terms of areas of investment and the key stakeholder groups.



It should be noted that the supply of bulk water remains with the region (Greater Wellington Regional Council) which supplies bulk water.to the cities of Lower Hutt, Porirua, Upper Hutt and Wellington. This is undertaken in terms of the Wellington Regional Water Board Act 1972, which includes an arrangement for the funding of the bulk supply network through a levy on the cities that are serviced.



3.2.5 Asset Management Plans (AMP)

Currently, Wellington Water prepares 13 separate council asset management plans (in consultation with councils) for the Wellington metropolitan region.

This approach means that while decisions are made regionally in relation to the bulk drinking water network, the former GWRC part of Wellington Water, which is "regional" in scope, other decision decisions relating to drinking water, stormwater and wastewater outcomes remain local.

Wellington Water intends to draft and maintain a Regional Asset Management Plan (RAMP) to help guide investment across regional infrastructure. Wellington Water seeks to maintain the integrity of all the individual councils' asset management plans in the first instance but to move towards a fully integrated plan in the long run. This plan will help Wellington Water encourage conversations in the region about any critical trade-offs in investments, initially with a focus on the three regional programmes of work. For 2015-16 Wellington Water produced 13 separate asset management plans for councils. In 2016-17 it is producing a single plan that looks at the region from the perspective of the three types of water assets, and then provides financial tables for each council. The aim is for the RAMP to have investment strategies in time to inform 2018-2028 long-term plans.

3.2.6 Asset Management and Service Implications

Each of the 5 councils have an overall obligation to put in place an asset management plan which addresses risk associated with the provision of the agreed level of service. Wellington Water is on a journey to establish standard asset management processes and working procedures. The maturity around asset management is improving and the initial steps have been mapped out to address the need. Making investment decisions based on 'good data' is a key enabler to deliver the business outcomes.

Wellington Water has an improvement programme in place to address the asset management needs of the councils. The intention is to align with international best practice, by driving a consistent approach to investment prioritisation, criticality, prioritisation, valuation, condition, performance measurement etc.

In terms of information, which is key in supporting the asset management needs, Wellington Water has established the information directorate as 'stewards' of the data. They are striving to make inroads into 'evidence-based decision-making'.



4 Benchmark Companies

4.1 Scottish Water

4.1.1 Introduction

With a population of in excess of 5 million, Scotland's water customers are spread over 78,789 square kilometres of land including islands, rural countryside and densely populated cities. The challenges of providing quality water and treatment of wastewater are similar to that faced in New Zealand, however, Scottish Water committed to provide the same level of service to all of its customers regardless of where they were located.

4.1.2 Governance and Shareholding

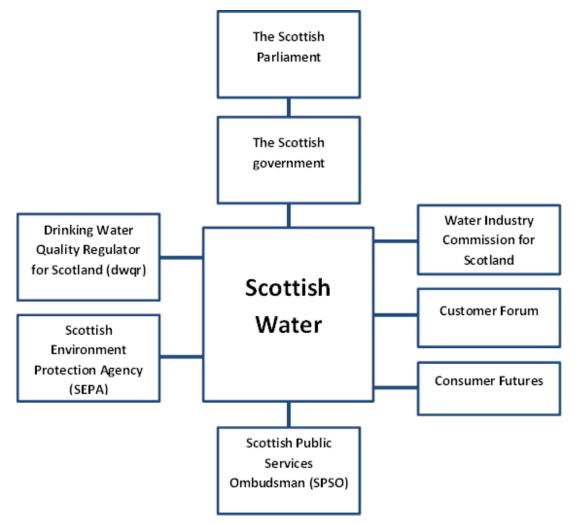
The Scottish Government legislates to ensure that the Scottish water industry is regulated and meets the provision of public health through compliant drinking water, environmental protection and improvement and ensures compliance through accountability.

Figure 4.1: Scottish Water Governance and Shareholder shows the relationships of the model:

- The Scottish Parliament holds Scottish Water and Ministers to account and regularly call executives to its committees to give progress updates.
- Scotland's ministers set the objectives for Scottish Water and appoint the Chair and Non-executive Members of the Scottish Water board.
- Scottish Water is responsible for providing water and wastewater services to household customers and wholesale Licensed Providers. The assets are owned and operated by Scottish Water which delivers the investment priorities of Ministers within the funding allowed by the Water Industry Commission for Scotland.
- The Water Industry Commission for Scotland Economic Regulator sets charges and reports on costs and performance. The Drinking Water Quality Regulator is responsible for protecting public health by ensuring compliance with drinking water quality regulations.
- The Scottish Environment Protection Agency (SEPA) is responsible for environmental protection and improvement.
- The Scottish Public Services Ombudsman is responsible for investigating complaints about public services in Scotland, including Scottish Water, once the services' complaints procedure has been completed and sharing lessons from complaints to improve the delivery of public services.
- Consumer Futures is responsible for representing the views and interests of Scottish Water customers and is a statutory consultee for matters relating to the Scottish water industry.







4.1.3 Funding Arrangements

All of the assets are owned and operated by Scottish Water which funds investment through a combination of long-term borrowing and the income from water charges within the funding limitations set by the Water Industry Commission within a given investment period. The investment periods were, until recently, 5 years, however, this has moved to a 6-year investment period. The water charges are set per property by the council tax banding as seen in Table 4.1



Council Tax Band	Council Tax	Water Charge	Waste Water	Total
Бапо	Council Tax	Water Charge	(Sewerage)charge	Total
А	£808.67	£126.76	£149.46	£1,086.89
В	£943.44	£150.22	£174.37	£1,268.03
С	£1,078.22	£171.68	£199.28	£1,449.18
D	£1,213.00	£193.14	£224.19	£1,630.33
Е	£1,482.56	£236.06	£274.01	£1,992.63
F	£1,752.11	£278.98	£323.83	£2,354.92
G	£2,021.67	£321.90	£373.65	£2,717.22
Н	£2,426.00	£386.28	£448.38	£3,260.66

Table 4.1: Council Tax Charges 2015/2016

4.1.4 Organisational Structure and Service Delivery Model

The Scottish Water Board comprises of a Chair and Non-Executive Members who are appointed by the Scottish Ministers and Executive Members. The Chief Executive is appointed by Scottish Water.

The role of the Board (among other things) is to:

- Provide strategic guidance and direction to Scottish Water
- Demonstrate high standards of corporate governance
- Oversee the delivery of Scottish Waters regulatory outputs
- Ensure statutory requirements in relation to the use of public funds are complied with.

Ultimately, the Board is accountable to the Scottish Ministers and Scottish Parliament.

4.1.5 Asset Management and Service Implications

Scottish Water has after 13 years of existence matured their asset management model through several stages. The model has been tailored to meet the current investment period. The following sets out the level of maturity and the associated service implications:

2002 to 2006 investment period.

This included the formation of Scottish Water, merging three water authorities into one (2002). One of the key drivers during this investment period was to address the inefficiencies identified through the comparison of Scottish Water to that of England and Wales through the regulated annual data returns. A major cost gap with England and Wales featured as the main drivers with 40% opex reduction and £500m capex cost reduction (delivering a £2.3b programme for £1.8b). The asset management was based on an inputs-driven programme with no direct link to performance improvement. For example, replace 3,000km of grade 4 and 5 water mains, but not a corresponding reduction in burst rate.



2006-2010 investment period.

During this investment period there was an efficiency catch-up that remained (gap between upper quartile performance set in 2002 between Scottish Water and the English and Welsh water companies) along with service improvements, significant backlog of quality legislative requirements and continuation of opex and capex efficiencies.; This saw the start of the journey to improve performance. Overall performance assessment targets were set. As an example, there was a focus of leakage reduction and reduction in unplanned interruptions etc.

2010 to 2015 investment period.

Innovation and risk management was a key business objective. Scottish Water took control of its destiny and it was about delivering its vision, rather than being told what to deliver. Scottish Water influenced the shape of the regulatory contract. Risk-based management, innovation, value proposition, customer service excellence, improved capital delivery and upper quartile service were all business objectives, which shaped Scottish Water and demonstrated its level of maturity.

2015 to 2021 investment period.

This investment period built upon the previous three. The Scottish Water average cost to household customers is greater than £50 a year below the average costs in England and Wales. The current investment period is about shaping and prioritisation through research with their customers and discussions through Customer Forums. The rolling investment review process has been introduced and the journey is now towards being the 'intelligent informed client'.

4.1.6 Service Delivery to Customers

Scottish Water has always had a direct relationship with the customer, although the direct billing of the water charges remains with the individual councils. This arrangement has worked reasonably well as the political topic of privatisation was heightened during the formation of Scottish Water and still remains a topical area in the political area. Scottish Water meters only 'business customers' with domestic remaining as charged per rates. It is worth noting that the level of consultation and participation from the customer has become pivotal in the process of prioritisation of funding or willingness to pay.

In order to strengthen customer relationships Scottish Water has set up a number of customer forums throughout its regions. These customers play a key part of the consultation process and are a key input in their strategic review process. The Water Industry Commission for Scotland supports this relationship, which provides key feedback in the communities' view of prioritised investment.



4.2 Watercare Services Ltd

4.2.1 Introduction

Watercare Services Ltd (Watercare) was originally established in 1991 as a wholesale provider of water and wastewater services to various councils in Auckland. Unlike Wellington Water it is not responsible for stormwater which remains a responsibility of Auckland Council.

After the formation of Watercare, Auckland City Council and Manukau City Council formed their own CCOs to manage retail water and wastewater services (MetroWater 1997 and Manukau Water 2006).

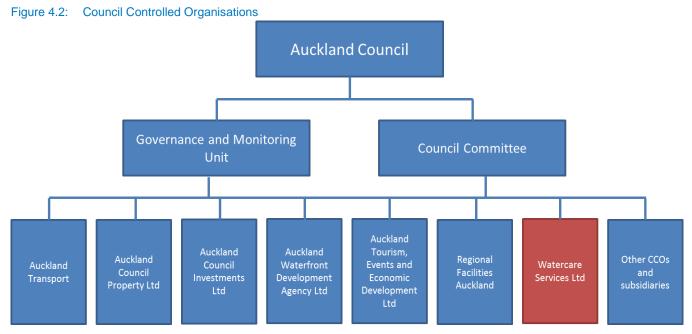
After the amalgamation of Auckland's territorial authorities and regional council into a single Auckland Council in 2010, Watercare became the single entity responsible for providing water and sewerage services within the Auckland Council boundaries. Watercare provides water and wastewater services to around 1.4 million people in the Auckland region.

4.2.2 Governance and Shareholding

It is a wholly owned subsidiary of Auckland Council (the shareholder). See Figure 4.2: Council Controlled Organisations

Operational responsibility is delegated to the chief executive by way of a formal, delegated authority framework. The board comprises of eight independent, non-executive directors. They, including the chair, are appointed by the shareholder. The board is ultimately responsible for all decision-making by the company. The chief executive is responsible for operations through the delegated formal framework.





Source: Auckland Council Long-term Plan 2012-2022 (LTP) Volume 5

There are four main areas of governance which support the Watercare Board in its operations:

- 1. Audit and Risk Committee
- 2. Health and Safety Committee
- 3. Capital Project Working Group
- 4. Remuneration and Appointments Committee

4.2.3 Funding Arrangements

Watercare, as an organisation, is self-funding in that it receives no funding from council or from central government and does not pay any dividends to the council. Watercare directly bills its household and business customers. This is done through meters at the supply point of the customer.

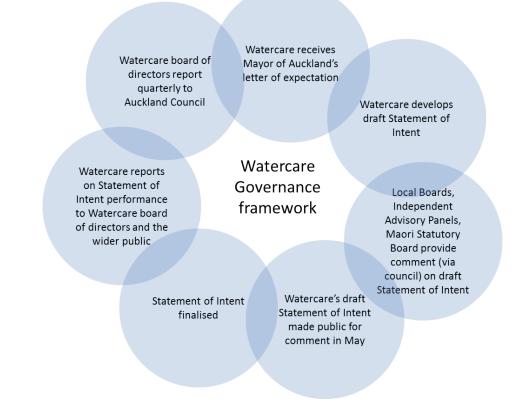
Watercare, according to its guiding principles, is required to manage its operations efficiently. As a business, it needs to borrow money mainly to fund capital investment programme. The majority of long-term borrowing has been sourced from Auckland Council, as this has been the lowest cost source.



4.2.4 Organisational Structure and Service Delivery Model

Watercare structure is traditional in terms of the asset owner and asset operator with operations taking the overall responsibility. See Figure 4.3 which shows Watercare's governance framework.





Source: Watercare 2015 Annual Report

4.2.5 Asset Management and Service Implications

Watercare has a Strategy and Planning general manager who is accountable for setting and implementing the asset management strategies. This set up requires considerable communication around all the stakeholders to ensure there is a clear path around the responsibility of operation, maintenance, enhancement and most importantly who owns and manages the risk. The main challenge from Watercare's point of view is addressing the growth in the Auckland area.



4.2.6 Service Delivery to Customers

Watercare has a direct relationship with its customers as they collect the income directly with the customer and there is a direct line of communication between both. All customer service complaints and enquires go directly through Watercare. The management of investment prioritisation is driven from its ability to service the need from the customers. The main interface with its customers and assets is through water meters and Watercare bill directly to the household or business.

4.3 Tasmanian Water

4.3.1 Introduction

Tasmania is an island state of Australia that is located 240 kilometres to the south of the Australian mainland. The state has a population of 507,626 (as of June 2010 census) almost half of which resides in the Greater Hobart precinct, while the other half is spread over approximately 68,000 square kilometres.

Prior to 1 July 2009, water and sewerage services were provided by 29 Councils and 3 bulk water authorities. As a result of significant reform of Tasmania's water industry, corporations were formed and commenced trading on 1 July 2009. The three regional corporations: Ben Lomond Water, Cradle Mountain Water and Southern Water, were owned by local government councils within their respective regions.

4.3.1.1 Moving to a single corporation

In September 2011, the boards of the regional corporations initiated discussions with owner councils about the potential benefits that could ensue from a single state-wide water and sewerage corporation. After a series of reviews, council owners in all regions agreed to move to a single corporation that merged the four corporations initially established in 2009.

Specific governance arrangements were agreed that are now largely incorporated in the Water and Sewerage Corporation Act 2012 (Tas), the new constitution and the new Shareholders' Letter of Expectation. The new corporation was registered as a proprietary limited company under Corporations Act 2001.

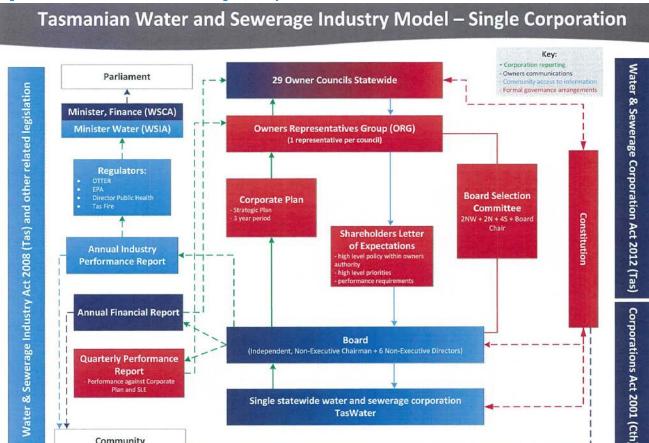
4.3.2 Governance and Shareholding

Tasmanian Water commenced operations on 1st July 2013 following the merger of the three former regional water corporations. (Ben Lomond Water, Cradle Mountain Water and Southern Water). The merger also included the common services, which were provided by Onstream, which was owned by the three regional corporations. The merger included transfer of all the assets and 842 full time employees.



The company operates under the Water and Sewerage Corporation Act 2012 (Tas). There are a number of additional legislative instruments, which provide the regulatory governance shows the industry model. The 29 local councils of Tasmania own equal shares and receive returns through dividends, tax equivalent payments and guarantee fees.

Figure 4.4: Tasmanian Water and Sewage Industry Model



Single statewide water and sewerage corporation TasWater

of sewage. This income stream is directly through bills to its customers. There are two types of bills - fixed

water charges, where meters do not exist, and variable water charges where customers are billed on consumption. Some additional income exists from Government Funded compensation, grants and sale of non-current assets.

Tasmanian Water obtains its income and main funding through sale of water and charges for the treatment

d SL

Tasmanian Water Annual Report 2013-14

Funding Arrangements

Community

Source:

4.3.3



4.3.4 Organisational Structure and Service Delivery Model

There is a board of directors. All directors including the chairman are non-executive and independent in terms of their external relationships with the corporate organisation. The board of directors are responsible for the corporations overall corporate governance. The board:

- Governs the corporation
- Provides entrepreneurial leadership
- Sets the corporation's strategic policy direction and objectives
- Ensures the necessary resources are in place to meet the objectives.
- Ensures effective financial reporting and risk management is undertaken
- Sets corporate values and standards which meets its obligations to its shareholders
- Appoints the Chief Executive Officer
- Ensures corporate compliance with its constitution.

The board has determined which matters it will manage exclusively, with the remainder delegated to the CEO and various officers within the corporation.

4.3.5 Asset Management and Service Implications

Tasmanian Water can be considered as at the early stages in the maturity of its asset management. Its approach to maintaining service on a risk basis is in its infancy. They have plans to upgrade their current asset management IT system to provide the platform investment decisions to be made through good data. Currently investment is made from a more 'reactive' position. Current procurement arrangements are very much traditional where consultants are used for design and contractors for delivery.

4.3.6 Service Delivery to Customers

Tasmanian Water has a direct relationship with the customer. It has developed a charter which provides information on the water and sewerage services and standards. The consultation process for the development of the charter included approval by the Tasmanian Economic Regulator. As part of setting the prices and service plan Tasmanian water has consulted directly with the customer.

Tasmanian Water has installed 54,000 water meters in southern Tasmania for the first time as well as others in unmetered areas of the state as part of a conservation drive.



4.4 England

4.4.1 Overview

An overview of the English Water companies is provided to give the overall context of the UK market. As these water companies are privately owned they provide an insight into best practise in the context of the New Zealand market.

English water companies are privately owned and can (and do) make profits from the water and sewerage services they provide. Companies are strictly regulated by a non-ministerial branch of the government. This regulator, 'Ofwat', has collected large volumes of performance information from companies according to strict guidelines since 1989. The net result of this ownership structure is that the model is often used for best practice comparisons across the globe. In particular, the private ownership brought a clear focus on delivering efficiencies and the strict regulatory regime brought a clear focus on performance improvement. The two together ensured that companies did not focus on one at the expense of the other. Whilst the private ownership and regulatory involvement is not a suitable model for all countries, and significant efficiencies and performance improvements can certainly be achieved without these parameters, many elements of the English model are suitable for benchmarking purposes since they highlight the scale of improvement that can be achieved through economies of scale.

In particular, this benchmarking analysis provides evidence relating to the potential magnitude of:

- performance/service improvements that could be achieved through greater council consolidation
- capital efficiencies that could be achieved through greater council consolidation
- operational efficiencies that could be achieved through greater council consolidation
- capital delivery (i.e. project-related) efficiencies that could be achieved when operating in a more consolidated council structure

To protect the interests of customers and the environment, three separate, independent bodies were established to regulate the activities of the water and sewerage companies. These were:

- the National Rivers Authority (now the Environment Agency) as the regulator for the environment
- the Drinking Water Inspectorate as the regulator of drinking water quality
- the Director General of Water Services (now Ofwat) as the economic regulator

It is the final of these regulators, Ofwat, that sets prices (i.e. determines how much money companies can charge customers for the services) and this is the principal reason that the economic regulator collected so much benchmark information.

4.4.1.1 Company Size and Key Attributes

The consolidation of thousands of local, publically-owned, bodies into effectively 10 large Water and Sewerage companies (termed 'WaSCs') and 8 smaller Water only Companies (termed 'WoCs') means that English companies are very large by international standards, even though England as a whole is relatively



small. The following Figure 4.5 summarises key features relating to company size from some of the water utilities in England and Wales.

		Attributes of Company Size								
Company	Type of Company	No. of Employees*	Total Connected Properties Table 2, Line 1	Population Table 2 Line 20	Domestic Props Connected to Sewerage System Table 3 Line 1	INUMBER OF	Number of properties connected for water and sewerage services Table 4 Line 7	Number of properties connected for sewerage services only Table 4 Line 8	Total length of mains (km) Table 11 Line 14	Total length o sewers Table 16 Line 14
Anglian Water	WaSC	4,000	2,074,700	4,388,330	2,649,400	283,736	1,790,903	858,537	37,633	44,135
Bristol Water	WoC	500	510,500	1,162,940	NA	510,533	NA	NA	6,670	NA
Dee Valley Water	WoC	170	122,004	265,193	NA	122,004	NA	NA	1,959	NA
Northumbrian Water	WaSC	2,933	1,949,400	4,338,390	1,228,500	800,122	1,149,191	87,314	17,008	29,868
Portsmouth Water	WoC	235	30,389	659,550	NA	303,891	NA	NA	3,270	NA
Sembcorp Bournmouth Water	WoC	350	201,610	437,600	NA		NA	NA	2,822	NA
Severn Trent Water	WaSC	3,100	3,425,400	7,673,610	3,901,800	318,414	3,106,944	794,836	46,712	54,747
Southern Water	WaSC	2,092	1,057,020	2,341,236	1,875,290	89,353	967,666	907,622	13,658	21,712
South East Water	WoC	749	886,300	1,988,000	NA	886,305	NA	NA	14,283	NA
South West Water	WaSC	1,227	783,500	1,671,350	700,900	88,618	694,924	6,022	15,101	9,328
Thames Water	WaSC	4,700	3,611,281	8,667,330	5,772,557	65,726	3,545,555	2,016,963	31,453	68,359
United Utilities	WaSC	5,300	3,207,000	6,865,850	3,209,600	105,155	3,101,867	107,777	42,476	43,887
Welsh Water	WaSC	3,000	1,387,000	2,925,570	1,402,700	121,881	1,265,125	137,575	27,172	18,522
Wessex Water	WaSC	2,000	583,031	1,257,380	1,180,787	60,580	522,451	658,336	11,509	17,443
Yorkshire Water	WaSC	2,500	2,227,400	4,851,160	2,217,700	111,183	2,116,229	101,449	31,071	31,154

Figure 4.5: Annual Returns for individual companies

WoC - Water only Company WaSC - Water and Sewerage Company

abo - water and bewerage company

Source: Data taken from individual company Annual Returns submitted to the regulator

4.4.1.2 Recent Developments in the Market

The UK Government has asked Ofwat to provide an assessment of the costs and benefits of extending retail competition in England to household customers by summer 2016. This is a significant shift from the current position in the UK where only the retail sector has been open for competition. This is to be conducted based on three principles.

- The decision on whether, in what form and on what timeline the household retail market in England will be opened to competition is a matter for the UK Government.
- Ofwat's assessment of the costs and benefits of extending retail competition to households will be evidence-based.
- Following an open and transparent process, seeking evidence and ideas from those in the sector and beyond.



4.5 Comparisons to Wellington Water

4.5.1 Introduction

This section sets out the main differentials or common comparison of Wellington Water to the models of the benchmark companies. The benchmark companies have been chosen as they have tracked similar paths by forming and evolving from a council-basis to their current status.

4.5.2 Wellington Water Three Waters Model

The Wellington Water model is based on providing the management of the service to the 5 councils. This type of arrangement is unusual and as far as we understand there is no other formal arrangement like this within the New Zealand water industry. We understand that some arrangements exist in the Manawatu/Rangitikei, Waikato and potentially other regions where purchasing, procurement and engineering services have been shared.

There are many partnerships throughout the world (UK, Australia, and Ireland) which combine consultants, contractors and the client organisation in a contractual arrangement to deliver the services of the water companies. This is mainly focussed on the delivery of large capital programmes of work but does include operational elements in some instances (repair of pipes, leakage, Information Technology, Laboratory services)

4.5.3 Governance and Shareholding

The governance of Wellington Water is formed through a tiered approach with the Wellington Water Committee providing the bridge between the five councils and the Board of Directors for Wellington Water. For the other comparison models the regulators play a much stronger role in the governance arrangements. This is the missing component from the current New Zealand water model and is not isolated to Wellington Water in providing more urgency around compliance and the need to be more efficient and more effective. This, however, should not stop, prevent or slow down changes that need to take place to improve the water sector within New Zealand.

Aligning the objectives of all the parties involved needs to develop and continue to mature. This area is the weak link in the model as it relies on good relationships and trust and is not driven by regulation. The current relationships appear to be good and the model will continue to mature if the vision is allowed to develop. Any significant misalignment may be caused through any of the five councils disagreeing on key objectives. For example, a council's contribution to regional funding could be disputed if they feel that the investment outweighs the benefit. This would see the model being tested and is likely, as a minimum, to restrain the progress in its maturity. This restraint is mainly due to the ownership of two key component parts, namely the customers and the assets remaining with the other parties.



4.5.4 Funding Arrangements

Wellington Water's funding arrangements are not providing the best platform for delivering efficiencies from a programme position. The model's constraint is in its funding structure where currently there are weaknesses in the ability to fund and deliver long-term programmes of work. The governance and reporting around the five owners introduces complexity including the double handling of information and it requires a tailored reporting regime.

Effective procurement is being constrained as prioritising is being made on an individual council-basis and not implemented in the most effective way through the delivery of a programme over a set period of time, which would enable "pooling of the money". This is not to say that the individual councils would not receive the investment they have identified and required. However it is a case of when and what risks are associated with reprioritisation of the delivery versus the savings which would be delivered.

The majority of investment programmes within the water sector have four to six year durations and are fully funded over this period. Scottish Water has recently gone to a six year rolling investment programme. Built within the rolling programme is the ability to review emerging needs and thereby realign investment to ensure successful delivery of business outcomes. Watercare, Tasmania and all of the UK companies have funding based on programmes of work.

A further consideration to the funding arrangements is that of the Wellington Regional Water Board Act 1972. This acts sets out in Part 2 Bulk Water Supply that "the function of the Board to investigate, construct, extend, enlarge, maintain, and repair waterworks for the bulk supply of pure water to constituent authorities". Through this Act the supply of bulk water sits and remains with the region (Greater Wellington Regional Council) and supplies bulk water.to the cities of Lower Hutt, Porirua, Upper Hutt and Wellington.

4.5.5 Organisational Structure and Service Delivery Model

The organisational structure of Wellington Water is aligned to the requirements of the business and what it is trying to achieve over the next two years. They are steering the ship in the right direction by introducing a more collaborative approach to the procurement model by engaging the supply chain on their journey.

This, however, has its challenges as one of the key enablers to being successful in this area is the visibility and ability to deliver programmes of work, which are aligned with the business objectives. Currently these objectives are set at a level where the 'Long Term Plans' are reasonably easy to align. This may not always be the case. For example, the resilience need is a regional initiative. Everyone can see why it is required through the risk of catastrophic failure, and therefore why it should be done. However, if you consider that some of the councils have historically given permission for development of housing on flood plains, which are at risk of internal flooding, the question of fully aligning objectives becomes more strained. The structure of water service delivery cannot drive land use planning decisions but can provide the basis for a better response in terms of stormwater.



The question arises around how councils can work in an integrated way for the benefit of the sum of the five of them. One overarching long-term plan would go some of the way to help address some of these issues. The purpose of this plan would set out the key objectives of all five councils and how this investment would be funded and delivered. This would explain prioritisation and expected outputs at the conclusion of the investment. It would allow Wellington Water to procure the best method of delivery through the engagement of the supply chain and explain how and when the investment would be made. It is a critical document as it would set out explanations on proposed deviations to timings from within the council's Long Term Plans. The outputs and outcomes at the execution of the plan would be the same. All of the other benchmarked companies have their own plan. Wellington Water is currently working to make progress in this direction. It has completed a Generation 1 Regional Asset Management Plan to inform decision making by member councils. It is working on Generation2 and is aiming to have a Generation3 version to inform decisions on water for councils' 2018-28 Long Term Plans.

4.5.6 Asset Management and Service Implication

Wellington Water is just starting the journey on its asset management maturity curve Scottish Water, in its 13 years of existence, matured their asset management model through several stages. The UK Water companies have had 25 years and Watercare and Tasmanian Water are in their infancy with 5 years under their belts since their amalgamations or formation. The major learning point is that the delivery model is usually tailored to meet the current investment period. Wellington Water is looking to get the basic building blocks in place to allow this maturity to occur. These include asset management IT system and working processes, alignment of business objectives to the level of service, assessment of risk, procurement strategy and building a centre of excellence to educate and inform its clients. None of the other benchmark companies have the challenge of alignment of their asset management IT systems with the councils whilst evolving and developing their own business.

4.5.7 Service Delivery to Customers

The rate-paying customer relationship needs to mature and develop with Wellington Water. Currently there is very little evidence that the rate-paying customer is aware of the services provided via Wellington Water and the role it plays in the community. In order to evolve, develop and fine-tune the customers' part in the business this relationship needs to be established and developed. In all of the benchmarked companies this relationship plays a key role in evolution of the service.

Tasmanian Water has developed its customer charter and engaged its customers as part of the pricing process. Scottish Water has a customer forum and heavily consulted with the customer as part of setting its prices. The Australian market and the UK have had focus on customer service and engagement. This is an area where the current model is weak.

We would recommend that a customer charter and/or forum is put in place along with an education programme on the services provided by the water sector and how they are provided to the rate-paying customer at their doorstep. There are examples in other models where the customer deals with the



councils direct for the payment of their rates but deals with the water company for the service element. This is evidenced in the Scottish Water model where the councils bill and manage the collection of rates from the rate-paying customer but any service issue sits entirely and seamlessly with the water company.

4.5.8 Centre of Excellence

All of the benchmark delivery models have evidenced the successes of 'best practice' and have referenced their ability to evolve by attracting the 'right people' who have the 'right level of experience'. A water company that has the credentials of a business that excels in their area of expertise shares their success with the industry and evolves through innovation, mainly due to the focus of delivering in the right environment. This is the starting point in developing more 'informed clients' who can make better informed decisions on the risks and investments. All of the benchmarked models have transferred their staff to within a newly named or formed organisation. The overwhelming benefit is the retention of local knowledge which has been used to develop a solid platform on which best practise can evolve. Not all of the personnel have taken up the same position within the new organisation; however, they have played their part in addressing the need for historic performance or incidences associated with assets.

All the evidence to date (Scottish Water, Watercare and Tasmanian Water) in this area is that organisations that have specialised in the provision of Water Services from previously owned council organisations have benefited from attracting and maintaining good quality staff. They have grown from strength to strength and their clients have become more informed. Evidence gathered during the stakeholder engagement shows that this is happening and growing momentum in the current Wellington Water model.

4.6 Comparisons with other Wellington region territorial authorities

The other councils outside of the Wellington Water model, namely Kāpiti Coast, Carterton, Masterton and South Wairarapa District Councils, face several challenges. Kāpiti Coast District has a population of 49,000 while Carterton, Masterton and South Wairarapa each have populations of less than 25,000. With small populations, large replacement costs of assets need to be funded over a longer time period to keep water charge increases within acceptable levels. This highlights the need for effective long-term planning through the application of good asset management working processes and procedures.

4.6.1 Centre of Excellence

The application of a 'Centre of Excellence' only becomes possible for the four councils by engaging other water companies to share best practise and lessons learnt. There was an indication during the stakeholder's interviews that Masterton, Carterton and South Wairarapa were looking to work more collaboratively in the future, including the possibility of merging their services. We believe this is essential for the long-term benefits of the rate payers. It would allow the councils to work more effectively. For example, Carterton and South Wairarapa could adopt Masterton's Asset Management IT system for a fraction of the cost of developing and maintaining their own.



4.6.2 Asset Management

Kāpiti Coast and Wellington Water have had a meeting to explore how they can share and develop asset management processes and procedures. This is mainly due to the common asset management IT system they have adopted. This could be extended to the other councils, which would help in the long term planning of investment. Standardisation of assets would help promote a more effective service. A shared stock of pipes and fittings is a very simple approach of what may be possible.

4.6.3 Procurement Strategy

Building on the back of the development of a centre of excellence would be the adoption of a more collaborative approach to procurement. There is significant evidence from all of the benchmark companies that proper engagement of the supply chain will deliver efficiencies and delivery that is more effective. Currently there is very little evidence of adopting a more collaborative approach aligned to the extent of that of the benchmarked companies between all the councils for their water services. Wellington Water is taking some steps and is in the process of setting up panels as part of the overall procurement strategy, which will provide a platform for more effective delivery.

Given that they have similar assets and use and engage similar consultants and contractors for similar services there is a good opportunity to be more collaborative.

4.6.4 Leveraging off Wellington Water

Given that Wellington Water has established some foundations and is building off the knowledge of the water services five councils, there is no reason why the councils outside the Wellington Water model should not benefit from its experience and vice versa. Together they could share best practice from an engineering and informed client point of view as well as at a business level through the Wellington Water Committee.



5 Stakeholder Engagement

5.1 Introduction

In order to validate, test and explore the current model in relation to other existing models engagement with key stakeholders formed part of the scoping report consultation process. Although other stakeholders exist the focus for this report was the relationship with the council owners. Over four weeks, the stakeholders within the Wellington region took part in a consultation exercise on the Wellington Water regional model. Their participation consisted of either being part of the existing three waters set up, if they were one of the surrounding regions and not part of Wellington Water, or as part of the Wellington Water model set up. All stakeholders were asked their opinion on the Wellington Water model and, where applicable, its performance.

The following councils and parties took part:

- Masterton District Council
- Upper Hut City Council
- Porirua City Council
- Kāpiti Coast District Council
- Hutt City Council
- Greater Wellington Regional Council
- Wellington City Council
- Wellington Water
- Wellington Water Committee.

The following areas are a summation of the key points made or confirmed during this engagement process. The framework discussion questions are contained in Appendix A.

Wellington Water

- Performance-to-date since its inception
 - Value for money: Overall, the stakeholders were happy with the progress made to date with the Wellington Water set up and felt that they were getting better value than the previous models in terms of the service provided. The phrase was very much "work in progress" but felt overall better informed. Masterton, Carterton and South Wairarapa councils which are not involved in Wellington Water, were considering joining other entities to be more effective in some manner, although not necessarily part of Wellington Water.
 - The Wellington Water model is in its infancy but is showing signs of providing a more efficient and effective service compared to the previous five council singular approaches and of Capacity Infrastructure Services Limited. The model of a 'trusted advisory service' built on key personnel has started the journey to provide the five councils with critical asset information on which they can plan key investment on a more informed regional wide basis. This is coming at a cost as the beginnings of 'centre of excellence' model needs the right level of resource funding to establish and build on the expertise.
- Wellington Waters relationship with rate-paying customers



- The rate-paying customer relationship needs to mature and develop with Wellington Water. Currently there is a layer of separation of the councils, however, through time and the implementation of good working practise this layer must be seamless as more mature and active models use consultation and the willingness to pay by customers as part of future investment decisions. A large part of Wellington Water's challenge is to educate the rate-paying customer about the level and types of services it provides and how their money is being invested. Wellington Water also needs to inform the councils through information and the management of risk and performance how the level of service or the customer experience can be improved.
- There are examples in other models where the customer deals with the councils direct for the payment of their rates but deals with the water company for the service element. This is evidenced in the Scottish Water model where the councils bill and manage the collection of rates from the rate-paying customer but any service issue sits entirely and seamlessly with the water company. In all of these examples the ownership of the assets sits with the water company.

Governance and Delivery of Investment

- Ring-fencing of Funding: It was confirmed by the stakeholders that the monies associated with Wellington Water investment in district networks were ring fenced. This is critical in that the contractual arrangements can be administered and are not at risk for any lack of funding reasons.
- Contractual Relationship with Suppliers: It was confirmed that Wellington Water are working their way towards being appointed as the principal to the contract and act on behalf of the councils. The five councils sign the contracts and make appropriate funding and payments available to allow the administration of the contract. In addition Wellington Water require the councils to approve capital contracts over \$1.2m. This set-up in itself is inefficient as it creates an additional layer of administration, which would not exist if the administration of the payments and the contractual arrangements sat with Wellington Water. It also highlights that the risk sits entirely with the councils and the relationship between Wellington Water and the suppliers is on a management and advisory basis.
- Regional Investment: The biggest test of the current Wellington Water model will be the implementation of increased resilience at a regional level. This will see cross funding of investment. It will require buy-in from all the councils to accept the costs of a project, even though some areas may benefit more than others. In order to get a more strategic view and demonstrate overall outcomes and benefits, an overarching long term plan, funded on a 5-year rolling basis, would help promote regional investment. It could also demonstrate the benefits across multiple districts and schemes that may not be delivered if considered as stand-alone projects on a district by district basis. These schemes highlight the need for regional plans and their overall benefit to the customer. They would also help promote the benefits of collaboration and the need for everyone to play their part.



- Programme Restrictions: The Wellington Water model is constrained in its funding structure. There are weaknesses in its ability to fund and deliver long-term programmes of work from an overall financial point of view. In addition there are prioritising constraints on an individual council basis. The need to serve five masters also constrains how effective Wellington Water can be in terms of reporting, investment prioritisation and effective procurement.
- The implementation of the long-term plan for 2018 to 2028 has never been so important. The plan needs to contain an overall programme of work in which investment is driven through a combination of efficient procurement and the management of risk. It should, if possible, contain some enhanced element of consultation with the customer. Going forward, the strategic decision will be related to increases in rates. Therefore, the earlier this consultation takes place the more it becomes the norm and ratepayers get a say on how they want to invest their money and their willingness to pay.
- The consultation on willingness to pay would be more focussed than the existing consultation process which takes place as part of the individual council's long-term plan and annual plans. Explanations on the level of risk and decisions about when to address the risk, based on rate charges and/or increases would form part of the discussion. The advantage of this process is that the ratepayers become more informed on the rationale behind funding decisions. They know what, in the area of three waters, they are getting for the money and more importantly, what they are not getting. The current AMP consultation process does not go into this level of detail and often the overall outcome shadows the decision-making process.
- Levels of Service: There are differences in levels of service between the five councils and in performance measures against the particular service categories. For example, there are different compliance targets for the number of consented overflows from the treatment plants. These are for fewer than 10 with a decreasing trend for Hutt and Upper Hutt City Council, and fewer than 15 and decreasing trend for Porirua City Council. Although this may be directly related to the existing consents, the level of service to the customer should be consistent.
 This has an impact from an investment point of view as well as reporting and governance.
 Wellington Water is doing work in this area by consolidating the reporting around these differentials and the alignment to its objectives. There is no technical requirement for the differential to exist and it would be more effective if a common set of service deliverables were adopted. This is also an area where if the same level of service existed throughout the Wellington region it would provide a set of benchmark KPI's which align with the National Standards (where they exist) on how we achieve the level of service.
- Compliance with current regulations
 - It was noted that Wellington Water is giving the five member councils more information concerning the level of investment required to address the known risks. The councils agreed that the asset management knowledge being provided by Wellington Water was increasing their awareness of the level of risk associated with compliance and the service to the customers. On the surface it will



appear that more investment is required to address or manage the acceptable risk. However, this is now further supported by evidence. Wellington Water's application of improved asset management is providing the councils with better information.

Asset Ownership and Asset Management

The ownership of assets is a bigger question to that of customers. There is a concern from some of the current asset owners (councils) that the transfer of ownership would have a detrimental effect on their asset portfolio. The other side of this coin is that the full potential of water companies (similar to that of the Scottish Water ownership model) who owns their own assets may be missed. Some of this concern may stem from the potential size of the reduction in value which may occur in the councils' balance sheets that would arise from transfer of asset ownership to Wellington Water. This is perceived as too big at this moment. Depending on how quickly Wellington Water mature would dictate when and if the ownership question should be considered. However, the potential for writing off debt cannot be ignored. When asset ownership is transferred, the debt associated with the assets would also be transferred, hence reducing debt of the councils. The decision on where asset ownership should sit is very much part of the maturity of the business and should be considered in the long-term plan but not at this stage.

A standard asset management approach is also a key enabler of the centre of excellence, and obtaining efficiencies through more effective procurement. Asset management has been seen by the stakeholders as one of the successes of the Wellington Water model. All personnel have been transferred into the new company and their knowledge has had an overall benefit to the service. The mass of this expertise is also key to continuous personnel development, and attracting the right employees and experts in the future. Many of the councils admitted that they would not and could not attract the type of personnel required for the effective provision of this role. With good asset management comes a standard approach and working procedures. This is the first step towards standardisation as a means of getting more efficiency in the supply chain. This comes not only from economies of scale but also from the ability to drive effectiveness further down the supply chain. Doing things the same way brings savings. A significant part of the efficiencies in the UK, Victoria (Australia) and here in New Zealand have come from the supply chain. These savings can be extended into the Wellington Region if standard asset management principles and working procedures can be extended beyond the Wellington Water Model.

- Reporting
 - The need to serve five masters constrains how effective Wellington Water can be in terms of reporting. There is a requirement to report to each individual council on the investment and status of the projects in terms of their associated outputs. Standardisation of a Wellington Water report at a high-level has taken place, however further levels of detail have to be tailored to each of the councils.

Efficiencies can be made through Wellington Water compiling a standard approach to classifying investment drivers, area of investment codes and other meta data tags on which the councils can reference a standard Wellington Water report. As the business matures the ability to slice and dice



information by sector drivers will become invaluable. This information can also be provided further down the supply chain, which creates a more overall integrated approach.

Outside of Wellington Water

The surrounding models outside Wellington Water vary considerably in terms of population density and locality. Some of the council's water departments are too small to justify an asset management proprietary system, whilst others have differing systems, hierarchies and asset standards. Kāpiti Coast District Council uses the same asset management software as Wellington Water (Infoworks) and they are having collaborative discussions on common hierarchies and definitions. Other councils could benefit from not only using similar products, processes and working procedures but also from the lessons learned and the development of best practice.

The long-term solution to the three waters model has to be a more collaborative and integrated approach, which is a shift from its current maturity status. There are improvements that can be introduced which will help the model and the surrounding councils on their journey.

The level of collaborative procurement by councils for three waters is minimal with very little evidence within the councils themselves, and none on a multi councils or programme basis. Significant savings can be delivered from a more effective procurement strategy.

5.2 **Procurement Strategy**

Evidence in the market place shows that if you can engage the 'supply chain' to such a level that you become part of their business plan, everyone then has more aligned objectives. Both the supplier and buyer benefit from the arrangement. For example, a large proportion of the £500m savings on Scottish Waters Capital Programme of 2006 was obtained from engaging the supply chain and getting more aligned objectives. Savings can be identified and delivered through more effective working arrangements and economies of scale. Key enablers to this process are:

- Removal of duplication and/or unnecessary paperwork/administration
- Volume of work over a known timescale
- Clearly identified scope
- Standardisation (minimising tailored working)
- Multi service suppliers (competition in market place).

Economies of scale refer to reductions in unit cost as an organisation's output increases. The Water Sector in the UK has successfully driven the unit cost of the organisation down through this application.

The region as a whole, not just the councils involved in Wellington Water, would benefit from a joined up procurement model which would provide services and materials using a more standardised approach. If through time this were aligned with the asset standards, the supply chain could play a key role in providing more cost effective solutions in delivering value. For example, the standardisation of spares for pumps or



standard sizes and fittings to address burst pipes could be achieved. This approach can be taken a step further by stocking supplies centrally, or with the suppliers 'on their shelves' thus providing more effective service.

5.3 Standardised Asset Management Strategy and IT system

Currently there is not one common asset management IT system across the current five councils. Wellington Water has adopted Infoworks Upper Hutt has Hansen's. With the asset ownership, remaining with the councils there is a requirement to take water into consideration as part of the overall asset management plan. As water is not the only element, which has to be considered as part of this process it may be difficult for all of the councils to adopt the one IT system. However, obtaining more alignment through Wellington Water process, procedures, hierarchy and naming conventions will help pave the way to sharing best practice.

The basis of all Asset Management methodologies is the high-level policies and objectives, which are underpinned by the strategies to deliver those objectives. Whatever stage an organisation is at in its asset management journey, there is typically room to help develop or improve the Asset Management space.

5.3.1 Why Asset Management is key

Evidence in the water industry through benchmarking highlights the relative scale of efficiencies and performance improvement that has been delivered in other countries and water utilities around the world. There are many individual mechanisms by which other companies have achieved significant performance and efficiency improvement. Some of these methods/approaches are easier to apply and embed in larger organisations where roles can be dedicated to a particular function rather than shared. Wellington Water model is such an organisation. It could help lead the way in the development and implementation asset management.

Although many companies around the world have adopted a variety of approaches to drive efficiency and performance improvements, a significant number of these approaches (if not all of them) could be argued to be the result of practices founded on improved and best practice asset management.

The Institute of Asset Management (IAM, UK) defines the benefits of good asset management as:

- Improved operating performance of assets (reduce failure rates, increase availability etc.)
- Reduced potential health impacts of operating the assets
- A reduction in the safety risks of operating the assets
- Minimising the environmental impact of operating the assets
- Maintaining and improving the reputation of the organisation
- Improved regulatory performance of an organisation
- Reduced legal risks associated with operating assets.



5.4 Overarching 10 year Long Term Plan for the Wellington region

5.4.1 Business Planning

The heart of asset management best practise is the Asset Management Plan. It is key to the effective and efficient delivery of the organisation's strategy and objectives. One of the enablers for the implementation of this plan is the ability to prioritise portfolios or programmes of work. This helps explore economies of scale, reduce procurement and coordination costs, and helps optimise performance through the better management of risks.

Prioritisation is key to economies of scale. A fundamental output from the overarching 10 year plan is the fact that it would facilitate a more integrated funding model whilst providing evidence for all councils investment delivery needs over a longer period. Investment will be made in the appropriate location based on the overall prioritisation programme of work. Therefore the best way to deliver the programme would be to set out each council's cash spend and borrowing forecasts. It should also set out where the investment will be made and when it is needed. This will then allow the supply chain to be fully engaged in developing the most effective way to deliver the programme. Wellington Water's role in this process is key as it will coordinate and manage the risk associated with asset failures and therefore manage where an asset's performance must be maintained for longer or where immediate investment must be made.

5.5 Unification of the Level of Service for Wellington

Currently there are differences in the level of services set out by each of the councils. Evidence from best practice sets out that there is no need for any differences, however, the activity required to deliver the level of service will and should differ. For example, Scottish Water has one level of service for circa 5 million customers. Each customer should receive the same quality of wholesome drinking water and have their wastewater removed and treated regardless of their location. The differential should be in the solution applied to providing the service; In other words, the appropriate level of treatment to meet the current resource consent. For example, the treatment of wastewater may be communal septic tanks for small rural communities whereas for a large populated city area it might be a large secondary or tertiary treatment works. It is the same level of service to the rate-paying customer as they receive wholesome drinking water and their wastewater is treated regardless of their location. An example of the difference in the target per council client is shown in Table 5.1



Table 5.1: Wellington Water Levels of Service extract

	Service Aspect	Service Objectives	Performance Measures	Target		
Waste water service category				Actual Result (2013- 14)	Target (2015-18)	Client
Environmental compliance	To manage wastewater in an environment ally sensitive manner	To maintain and promote appropriate standards of water quality and waterway health in the city's coastal and river environments	The number of dry weather sewerage overflows from the council's sewerage system expressed per 1,000 sewerage connections to the sewerage system	New performance measure	Nil	All clients (excl. GWRC)
			The number of non- consented overflows from the treatment plants	Nil	Nil	HCC, PCC and WCC
			The number of consented overflows from the treatment plants	11	Fewer than 10 and decreasing trend	HCC UHCC
				14	Fewer than 15 and decreasing trend	PCC
				8	Fewer than 10 and decreasing trend	WCC

The key to the unification is agreement on the appropriate level of service and its measurement, which is fully aligned to the national standards, bearing in mind that all levels of service come at a cost. The assumption associated with the level of service is that all councils will meet this as a minimum requirement.

5.6 Centre of Excellence to establish a more informed client base

One of the main successes of the current Wellington Water model is the establishment of a mass of knowledge and competencies within the same organisation. This has been done relatively smoothly with staff transferring from their existing councils into Wellington Water. The feedback in this area is that employees have relished and blossomed in the time of this arrangement.

All the evidence to date (Scottish Water, Watercare and Tasmanian Water) in this area is that organisations that have specialised in the provision of water services from previously council-owned organisations have benefited from attracting and maintaining good quality staff. They have grown from strength to strength and their clients have become more informed.



Through the implementation of a centre of excellence approach, career development and job opportunities are likely to improve. This has been noted across the benchmarked companies' case studies as being a significant positive outcome from the rationalisation process with both the management teams and professional (technical and operations) staff being better recognised for their skills. It has also provided the ability for staff to further develop their professions as part of a larger team, focussed on the delivery of water services to customers, which provides better career prospects (and staff retention). They also attract more interest from the employment market. Recognition of water utility services as a critical sector in the community is important as it raises the profile of the sector and highlights the importance of the resource and associated services to society. Where this critical mass does not exist it relies on the individuals to actively form greater connections out with their existing organisation to achieve the knowledge sharing.

5.7 Increase number of members within the Wellington Water Committee (without voting power)

Centres of excellence will provide the platform to enhance the technical side of the business. They build the body of knowledge, from an engineering and asset management point of view, to help make informed decisions. However, the leadership and business ethos also needs to develop. This is where the Wellington Water Committee can provide a platform for a better way of working together. The provision of water services will develop and deliver more value through sharing business challenges and solutions. Exploring areas of investment funding, benchmarking comparative services, sharing political challenges and benefiting from the enhancement of the overall environment from source to tap through learning from what went well. For example, it is well publicised that the installation of water meters at Kāpiti Coast District Council was a challenging time and they learnt many lessons through the installation. We are not advocating that Wellington Water install water metres, however, from a leadership and political lessons learnt that is a great business lesson.

Providing for a number of non-voting members of the Wellington Water Committee would enable this to act as a forum for the sharing of knowledge across a wider group of councils than the current membership of Wellington Water.



6 Recommendations

All councils in the Wellington region could benefit from a more collaborative approach to how they deliver their three waters services. The benefits would be a more informed client perspective technically and an enhanced financial investment delivery position.

6.1 6.1 Wellington Water Recommendations

In the short-term, there are six key areas, which should be implemented to enable the provision and delivery of these benefits. This would provide an enhanced value position for the rate-paying customer on the longer term:

- Continue to implement a more collaborative procurement approach. Wellington Water has started implementing a procurement strategy, which will develop a more integrated supply chain resulting in efficiencies and more effective delivery.
- Produce an overarching 10 year Long Term Plan with 5 year rolling funding agreement.
- Continue discussions with councils about implementing the unification of the Levels of Service .
- Further develop the 'centre of excellence' to establish a more informed client base and share best practice throughout all of Wellington.
- Increase the number of members within the Wellington Water Committee (without voting powers) to include other territorial authorities and to share best practice and knowledge from a business prospective.
- Develop a standardised Asset Management Strategy and IT system. The standard Asset Management approach is a key enabler to the 'centre of excellence'. This is one of the successes of the Wellington Water model where all water personnel have been transferred into the company. This mass of expertise is key for continuous personnel development and attracting the right employees and experts in the future.
- The rate-paying customer relationship needs to mature and develop with Wellington Water, which requires discussions with councils about their relationship with customers and the degree to which Wellington Water could manage the customer relationship more directly, rather than via the councils. Currently there is a layer of separation of the council. Through time and the implementation of good working practice, this layer must be seamless as more mature and active models use consultation and the willingness to pay by customers as part of future investment decisions.

6.2 Recommendations for Councils outside Wellington Water

In the short to medium-term there are six key areas, which should be implemented to enable the provision and delivery of these benefits and provide an enhanced value position for the rate-paying customer long-term

Implement a more collaborative procurement approach. The level of collaborative procurement among the councils in the water sector is minimal. There is little evidence of this within the councils themselves and none on a multi council or programme basis, although Wellington Water is in the early stages of implementing its principal to contract arrangement which will being regional benefits The



implementation of more collaborative procurement by effectively engaging the supply chain will deliver savings through more effective working and economies of scale.

- Take part in unifying one standardised Asset Management Strategy and long term IT systems to provide a consistent approach to managing risk and prioritising investment.
- Develop regional Wellington 10 year Long Term Plan to enable all synergies and interdependencies to be captured under a three waters plan.
- Agree level of service the councils which to invest in some of which may be similar across the whole region
- Be an active member of a wider Wellington centre of excellence to establish a more informed client base and share best practice throughout all of Wellington.
- Participate in sharing best practice and knowledge and be proactive in widening the objectives of the Wellington Water Committee as a nonvoting member beyond the boundaries of the existing Wellington Water 5 councils.

6.3 Medium to Long-Term Recommendations for Wellington Water

If this review were starting with a blank sheet of paper, we would not recommend the current Wellington Water Model.

Given where the Wellington Water model is in the maturity curve (in its infancy) it is showing good signs of providing a more efficient and effective service, the recommendations align with improvements to the current Wellington Water model.

Given this position and status of the maturity of the Wellington Water model, it is not the best time to implement medium to long-term objectives. These should however form part of the recommendations of this report because they would bring significant benefits to ratepayers. The following should be considered

- To review ownership of the assets within the Wellington Water Model
- To review the customer relationship with Wellington Water.

The main limitations of the existing model are:

- Non-standard working processes and systems across the 5 councils
- Restrictions associated with delivering programmes of work
- Funding restrictions based on an annual basis for each individual council
- Different asset management IT systems and working procedures
- Differences in levels of services for the 5 council customers
- Differences in reporting requirements for each of the councils
- The 5 councils objectives are not fully aligned in one plan



Appendices

Appendix A. Stakeholder engagement____

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Appendix A. Stakeholder engagement

Example of stakeholder areas of enquires

LGC QUESTIONNAIRE

- 1. Background Ed Ptolomey
- 2. Were you ever considered as part of Wellington Water?
- 3. Do you think the Wellington Water model can offer any benefits to your current set up?
- 4. Do you feel you get value for money as a DC?
 - a. Have you ever considered shared services arrangements?
 - b. Have you any procurement arrangements with other DC?
- 5. Is your funding ring fenced for Water projects only?
- 6. Is there any consolidated buying power within the councils?
- 7. How is your level of compliance with regards to regulation?
- 8. Do you collaborate with other councils on water/environment matters?
- 9. Do you ever share knowledge on asset information?
- 10. Will you have any future willingness to pay challenges in line with your investment and risk profile?
- 11. Are you considering any collaboration with other regions with regards to water in the future?