

Improving New Zealand's water, wastewater and stormwater sector

A position paper prepared by LGNZ

September 2015



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LGNZ.**

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This paper has been prepared with assistance from Castalia Strategic Advisors.

Foreword



Foreword

In 2011, the National Infrastructure Plan gave water infrastructure the lowest ranking of all of New Zealand's infrastructure sectors across measures of investment analysis, resilience, funding mechanisms, accountability, performance and regulation. At the time, however, it was acknowledged that the level of information on the state of water infrastructure and management that gave rise to that assessment was sparse and that improvements in the information base were needed.

Local government, as the owners of water assets and the primary providers of three waters services, has taken on the challenge of improving the information base and water industry service delivery. In 2013, Local Government New Zealand (LGNZ) established the 3 Waters project as a proactive and collaborative approach to improve understanding of potable, waste and stormwater assets and services in New Zealand. The project brought together representatives from local government, central government and the water industry to explore an honest assessment of the performance of the three waters sector.

The 3 Waters project has already had a significant impact on the establishment of a clear picture of the state of infrastructure in the three waters sector. The first step was to fill the information gap by developing the National Information Framework survey, where councils disclosed information on their performance using an agreed framework and set of measures. A total of 70 out of 78 councils in New Zealand provided data on their potable, waste and stormwater assets and services.

In addition to substantially improving the level of sector data, the 3 Waters project released an issues paper in August 2014. The paper extensively analysed three core issues facing the sector namely:

- investing to replace and renew existing assets;
- investing to meet rising standards and increasing expectations; and

- providing end-users with the right incentives to use water infrastructure and services efficiently.

These issues, and others, were tested through a series of workshops attended by 61 councils. The draft paper received around 30 written submissions from councils, central government, consultants and interested individuals and organisations. This engagement and feedback shows both a strong level of commitment and ownership of the issues and a commitment to improving outcomes over time.

This position paper builds on this momentum by describing how a 'strong, sector-led approach' will put in place an improved regulatory framework to assist the potable and wastewater service providers in addressing over time the key issues described above. It poses three options: a multilateral contract or deed; a co-regulatory model; or, an option which has recently come onto the table, which is utilisation of the possible Local Government Risk Agency. The paper also draws attention to the unique challenges facing the third water (stormwater) when considering possible pathways to improve sector performance. The approaches outlined in this paper have been developed primarily through workshops with councils held across New Zealand, and through the guidance of the 3 Waters Steering Committee and Advisory Group. The paper has been approved formally by the National Council of LGNZ. LGNZ invites your feedback on the options discussed in this document.

We look forward to your continued support and commitment as we move ahead to ensure that we continue to deliver a fit for purpose water sector.

Lawrence Yule
President
Local Government New Zealand

Executive summary

Executive summary

New Zealand's water, wastewater and stormwater services ("the three waters") face challenges looking out over the next 20 years or so. Potable and wastewater service providers (predominantly district and city councils) are being asked to meet ever-increasing levels of reliability, quality, and resilience but the costs of meeting these service levels are likely to put pressure on affordability in many parts of the country. Stormwater service provision has its own unique set of challenges including impacts of national water quality standards and managing the risks associated with climate change. In addition to these challenges there is also the growing need for the renewal of existing infrastructure as assets reach the end of their useable life. The renewals requirement, quite apart from the need to extend infrastructure to meet growth or the need to meet new standards, also will place pressure on council finances and affordability.

LGNZ initiated the 3 Waters project to gain a better understanding of these sector challenges, and to ensure that decision-making processes are well-suited to addressing these challenges. The project has provided clarity on areas for improvement. LGNZ believes that the best way to deliver sustainable, cost-effective improvements in sector performance is for the local government sector to accept responsibility for delivering the outcomes needed through a "strong, sector-led approach."

Clarity on areas for improvement

The 3 Waters project has collected extensive data on three waters assets and services through a comprehensive survey completed by 70 councils.¹ For the first time, this information creates the ability to accurately diagnose sector strengths and weaknesses. Survey responses have been used to focus attention on key sector issues and challenges, and key issues have been further refined through industry consultation.² This collaborative process has contributed to a positive change. The councils across New Zealand have come together and effectively engaged in information disclosure using an agreed national framework. This is the first time this has been achieved to this degree.

The findings of the survey show that the potable and wastewater system is currently functioning as expected, but that opportunities exist to lift performance in the future. The findings from the survey improved our understanding of stormwater assets and services but also highlighted the differing circumstances of stormwater as compared to potable and wastewater infrastructure.

There is a need for further investigation of the stormwater sector, and this is catered for in the project timeline.

The process of preparing and consulting on the 3 Waters issues paper has singled out the following three key issues:

- The sector is facing an **increasing need to renew and replace assets**, although the exact timing of the renewals programme is unclear and it is likely to be different in different areas. Different councils approach this challenge in different ways – some replace assets based on age, others wait until assets start to fail, while others utilise the full life of an asset by careful monitoring. Although good asset management approaches are well-known throughout the sector, financial pressures create the need to prioritise capital and operating expenditures.
- Service providers are being asked to meet **higher standards of quality** – on drinking water quality, freshwater management, and in stormwater services. Each of these rising standards imposes new costs, which are all expected to be recovered through rates and user charges. These costs may make the services unaffordable for some communities. This may prove a challenge, in particular, where local populations are ageing and/or in decline.
- There is **not enough information on performance** to provide total confidence that the sector is operating as well as it should or is positioning itself well for future challenges. That said, the initial data gathered through this project demonstrates that the sector is not fundamentally broken. The challenges lie ahead. However, consistent and transparent reporting and performance benchmarks to ensure better investment, maintenance and operational decisions currently are missing.

A strong, sector-led approach can meet these coming challenges

Given that future expectations will exceed current service levels, improvements can and should be made to the way that the sector operates. One of the key themes that emerged from the LGNZ Three Waters project data analysis is that there appear to be few, if any, issues that are truly "sector wide" (although stormwater is an area that may require special consideration because of its intimate association with road infrastructure). The right approach to improving performance must reflect this sentiment, particularly avoiding "one size fits all" initiatives. Continuing to further develop and apply database technology to help build our understanding of the state of the three waters assets and services in the future will be a key focus for the strong sector led approach.

¹ NZIER, Three waters services: results of a survey of council provision.

² Castalia, Exploring the issues facing New Zealand's water, wastewater and stormwater sector. Available at <http://www.lgnz.co.nz/assets/Publications/LGNZ-3-Waters-Issues-Paper.pdf>.

Because local government both represents the diverse communities and constituencies that rely on three waters services and owns and operates the assets concerned, it must play the central role in resolving key sector issues. The sector's participation in the LGNZ National Information Survey, data analysis, the issues paper and the development of options to lift performance, demonstrates that local government is able now and committed to lead developments in the three waters sector. The options for a strong, sector-led approach described in this paper build on this momentum by strengthening collaboration to determine service expectations, funding approaches, and information sharing tools that best meet the varied circumstances of different councils.

This paper outlines three possible approaches to delivering a strong, sector-led approach. They are:

- 1. A multilateral contract or deed with a commitment to enforceable provisions;**
- 2. A co-regulatory approach modelled on the successful co-regulatory approach used in the gas industry; and**
- 3. Utilisation of the possible Local Government Risk Agency.** The business case to establish whether such an agency should be created presently is being developed in partnership with the Crown. If the business case stacks up, it would be the logical entity to set data standards and benchmarks, hold asset information and incentivise and share better practise across the sector since to carry out its functions it is likely to have to hold this information in any event.

Option 1 entails water sector participants voluntarily agreeing to be bound by an enforceable set of obligations under a multilateral contract or deed (the electricity market was regulated in this manner between 1996 and 2004). Option 2 would require empowering legislation to establish a new set of regulatory arrangements that would be delivered and owned by local authorities but which would be accountable ultimately to the Government. A current example of this model is the Gas Industry Company (GIC) which operates under the Gas Act 1992. Under that Act, the GIC (owned by gas market participants) is designated by the responsible Minister to be the mandated industry body to oversee gas market regulation. It is accountable to the Minister. If it fails to perform the Minister could intervene and establish a new Government owned regulator. This incentivises the GIC to focus keenly on its task.

Of the first two options it is considered that the more effective and most expeditious manner of proceeding would be to adopt a co-regulatory approach ie option 2. This is because, whilst option 1 could deliver similar outcomes to option 2, it would require all local authorities to agree to its provisions. This may prove challenging

to achieve. Additionally, there may be difficulty in binding council-owned organisations with a separate legal personality and non-council providers. A co-regulatory model could be delivered in a more comprehensive and timely fashion, relative to option 1 (assuming timely legislative processes) yet preserve at the governance table the expertise of local authorities in water management issues (which is required for long-term successful outcomes). Under either model a water sector "regulator" would set the "rules of the game" and councils would choose the best delivery options for water infrastructure in their respective communities consistent with achieving the regulatory goals.

The third option referred to above has recently come onto the table. Legislation is unlikely to be required and if selected would be able to be delivered fastest (because legislation and agreement by all water industry participants would not be required). In June 2015, LGNZ and the Crown announced a jointly funded project to consider whether a business case exists to create a local government owned entity to assist the sector, both to better understand risk, and to better manage and mitigate risk ("Local Government Risk Agency"). This proposal arose from LGNZ work on local government insurance markets and the management of natural hazards. Three waters infrastructure, is a significant component of the sector's overall risk profile. A risk agency would be modelled on the successful Local Government Funding Agency. If a business case exists for such an agency, then it is likely that a core part of its work will entail developing a detailed understanding of the state of local government assets, the methods employed by councils to manage those assets, and the investment profile and funding mechanisms for renewals and network extensions. Whilst membership is likely to be voluntary, there could well be compelling incentives for councils to join. If that is the case then most of the gains from having a central body with an overview of the three waters sector could be captured from utilising this body in preference to the first two options, should it proceed. If the business case is positive, then the project team prefers this option in preference to the others.

Other options do not offer the same potential for performance improvement

In developing the strong, sector-led approach, the 3 Waters project also considered two other pathways to change the way that sector decisions are made, namely:

- A less extensive set of changes could focus on generating performance improvements through greater transparency and accountability (we refer to this approach as the "enhanced status quo"). This would involve extending the National Information Framework and ensuring that council performance is reported in a consistent way across a set of agreed

benchmarks. Current decision-making processes would remain unchanged under this approach; and

- A more externally resourced and driven approach could empower an independent regulator to monitor sector performance and make regulatory decisions that aim to improve performance (we refer to this approach as “economic regulation”). This regulatory approach currently is used in interconnected network infrastructure such as electricity and gas distribution networks, airports and telecommunications infrastructure in New Zealand.

While these options have some advantages, neither approach would achieve all of the key outcomes identified through this project.

The enhanced status quo presents a real risk that the changes involved will not sufficiently incentivise asset owners to raise performance where needed, particularly given that some local authorities may face challenges in funding, investment and capability. Full blown economic regulation is costly. Additionally, decision-makers would struggle to make decisions that adequately reflect differences in local interests and constraints. Further to this, an economic regulator would have difficulty addressing the

differences in provision of stormwater infrastructure risking a ‘one size fits all’ approach to resolving sector issues. Water delivery was originally given to local authorities to manage precisely because of the local issues involved. This option also involves a loss of local government involvement, undoing the progress made so far under the 3 Waters project, and at a level of cost that is not well targeted to the challenges facing the three waters. Ultimately, however, adoption of a multilateral, a co-regulatory or a Local Government Risk Agency approach does not foreclose the possibility in the future of moving to economic regulation should that be required. That, in and of itself, may provide sufficient incentive to achieve the gains by way of a less intrusive and costly regulatory approach.

Overall, we consider one of the three options for delivering a strong, sector-led approach provides the best opportunity for the local government sector to lead, and to give stakeholders the confidence that improvements in performance over time of the three waters will be achieved, but not at the expense of the industry or the communities it serves.

1

**Three waters
serving diverse
needs and
interests**

New Zealand's economy and society rely on a well-functioning and adaptable sector to deliver potable water, wastewater and stormwater services ("the three waters"). The specific needs of local communities determine how best to use resources to provide these services – with the common goals of efficiency, safety, reliability and affordability.

The three waters are a substantial part of New Zealand's infrastructure

The economic, social and environmental impacts of the three waters and the direct value of the infrastructure involved in providing these services underscore the value of the three waters to New Zealand.

New Zealand's near universal coverage (at least for potable and wastewater services) has led to the development of a large three waters asset base. Councils' reticulated assets for potable water can range from 70 kilometres in length up to 550,000 kilometres per council. As this size suggests, three waters assets are a valuable part of New Zealand's infrastructure. Based on the survey data³ the total replacement value of the assets is estimated to be approximately \$35 billion (estimate from figures to year end 30 June 2013).

While the economic, social and environmental impacts of the sector are difficult to quantify, a well-managed three waters system is critical to public health and protecting property and the environment from flood damage. The management of the three waters in New Zealand is also unique in the need to respect the cultural value of water and water bodies to local iwi and hapu.

Three waters services are delivered to a diverse range of communities and interests

In total, 78 councils are involved in the delivery or management of the three waters in New Zealand. Territorial authorities, referred to as water service providers (WSPs) in this report, are responsible for delivering three waters services to their communities. Regional councils also have a responsibility in managing stormwater assets and for setting standards to manage the environmental impacts.

The interests served by local authorities in the three waters vary considerably across the country, and different local authorities face very different challenges in the three waters. Local communities vary significantly by size, growth rates and ability to pay.

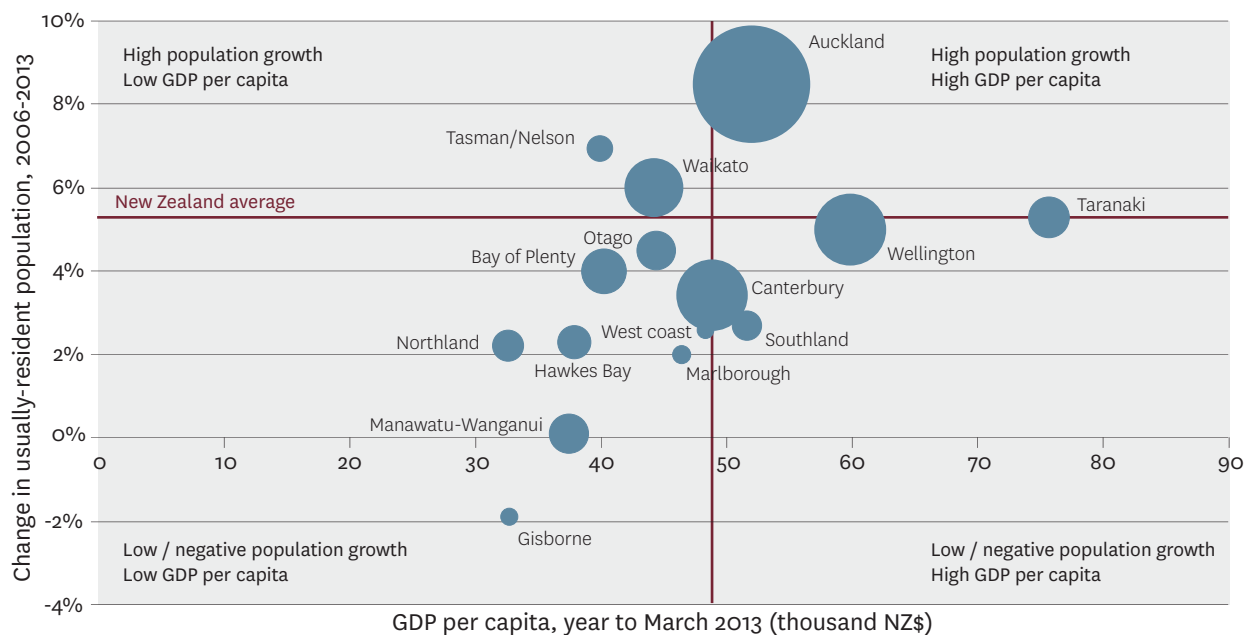
There is even considerable variation within council boundaries. A single territorial authority can be responsible for schemes with 15 to 125,000 connections for potable water alone. While some communities have growing populations, the population growth of some of New Zealand's regions is slowing down (or even shrinking). Figure 1.1 overleaf illustrates the diversity of population growth rates and incomes (measured by GDP per capita and total GDP).

Population trends have important implications for three waters infrastructure and its financial sustainability. Population growth creates more demand for surfaced areas and, therefore, stormwater management. Other areas rely heavily on tourism, creating the need to build and maintain three waters assets to meet the demands of peak, seasonal populations – with much of the cost borne by smaller, resident populations. While a shrinking population might reduce the pressure to expand the network, it reduces the rate base available to maintain or replace existing infrastructure.

As Figure 1.1 illustrates, the ability of communities to pay for their three waters services (as indicated by regional GDP per capita) also varies. Areas with low or negative population growth and low per capita GDP will face particular challenges affording the fixed costs of three waters infrastructure. Areas with high population growth and low per capita GDP may struggle to fund system growth.

³ NZIER, Three waters services: results of a survey of council provision.

Figure 1.1: Population growth and GDP per capita, by region



Source: Castalia, based on Statistics New Zealand data
 Note: The size of each bubble represents a region's total GDP relative to the other regions

The particular services delivered by the sector vary. Potable water and wastewater users are typically residential, commercial or industrial users. However, stormwater customers are all property owners and communities that would be affected by the flooding if the system did not exist. As a result, the benefits of stormwater services are public goods (they are non-excludable and non-rival). The difference between the waters is reflected in the different ways of managing the three waters, either as “two-plus-one” waters, where stormwater is managed by a separate unit (such as in Auckland), or as three waters managed together. This paper adopts a three waters approach, but recognises the unique challenges facing stormwater.

The diversity of communities and customers supports the goal of consistently good outcomes across the three waters

Three waters services should be delivered in ways that ensure all councils deliver key outcomes (such as public health and safety and efficient asset management at a reasonable cost), while allowing councils the flexibility to manage their specific circumstances. However, there are concerns that these outcomes are not being consistently delivered across the country.

This paper describes the outcomes that should be attained in all areas and identifies whether, and where, the sector can meet these expectations (Section 2). We then describe how the sector can improve its overall performance and summarise the next steps in the 3 Waters project (Section 3).

While the needs of different communities vary, good performance has several common components. Rather than focusing on what we expect of particular sector players (such as service providers, central government agencies or water service users), this paper focuses on what we expect the three waters sector as a whole to deliver to New Zealand.

These expectations establish the benchmark for an efficient and sustainable sector, and are summarised in Figure 2.1. The expectations have been developed and supported by senior representatives from local government, central government and private interests in the three waters. This has included guidance and support from Department of Internal Affairs, Institute of Public Works Engineering Australasia, Local Government New Zealand, New Zealand Council for Infrastructure Development, New Zealand Society of Local Government Managers, the Office of the Auditor-General, Treasury and Water New Zealand.

2

**What does
strong
performance
look like?**

Figure 2.1: Expectations of an efficient and sustainable three waters sector

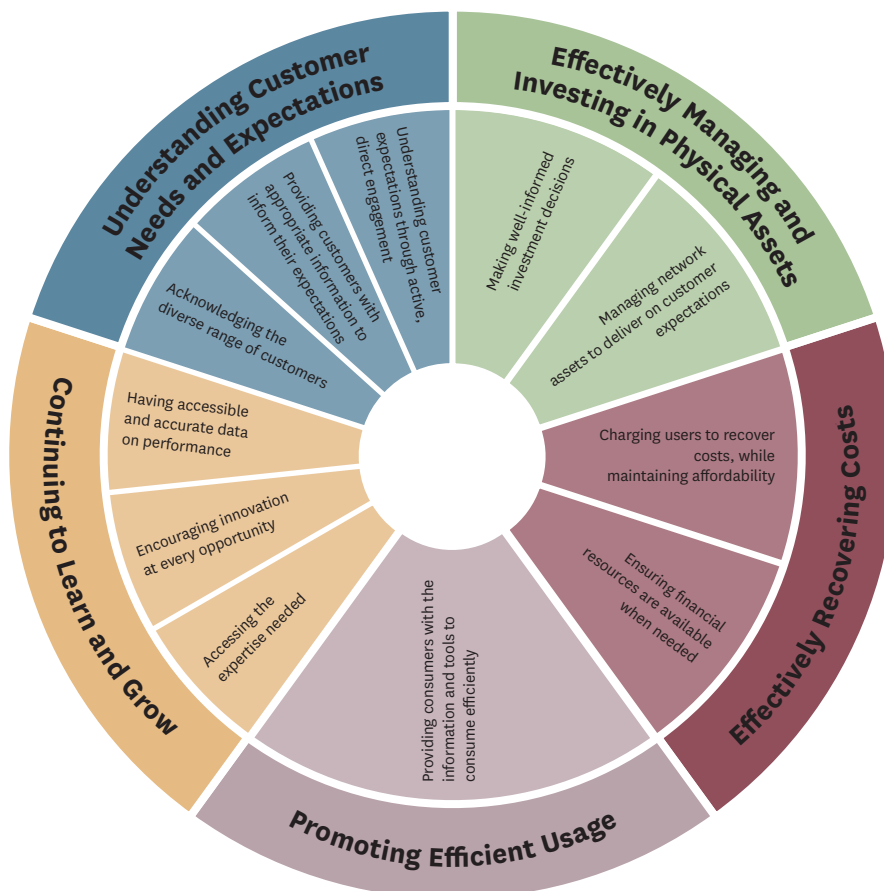
This diagram illustrates the complex relationships and linkages that exist between each expectation, which often overlap and reinforce each other. For example, a sector that shares performance data and best practice will likely have more detailed asset management information. This information in turn helps to guide customers' service expectations and helps asset managers make the right investment decisions. While these interactions are not reflected on the diagram, the major complexity of the three waters sector is front of mind when we recommend an approach to improving sector performance.

The following sub-sections discuss each expectation on the wheel, and whether the existing three waters sector currently meets those performance expectations. Overall, we find that while the sector does some things very well, it now acknowledges the areas where improvements are needed to strengthen overall performance. These improvements are the key outcomes that any change to the three waters sector must deliver.

2.1 Understanding customer needs and expectations

Water service providers should place users at the centre of the sector and treat them as customers, with a sense of choice and influence over the services they demand. Three waters services should strive to meet customers':

- **needs**, which are sometimes defined by statutory obligations (minimum levels of service) or are responses to phenomenon that substantially impact customers (even if this impact is not immediately obvious to customers) such as planning for climate change or resilience to natural hazards; and
- **expectations**, which can reflect individual customers' expectations of reliability, affordability and performance, or wider community interests.



Acknowledging the diverse range of customers

The idea of who qualifies as a three waters customer should encompass all of the interests at stake in the delivery of the three waters. In addition to residential, commercial or industrial service users, customers may also form expectations due to their position in the wider community. The sector currently acknowledges these community interests well. Existing processes, including Long Term Plans (LTPs) and resource consenting allow parties to share their environmental, health, iwi, relevant industry, or 'NZ Inc' interests.

While diverse interests are managed reasonably well at a local level, the lack of coordinated management of the three waters makes it more difficult for local processes to account for national interests, and vice versa. This can result in tension where customer and community interests compete with national or regional objectives.

The problems created by competing national and local interests are demonstrated in the current debate over the costs of rising standards. Stakeholder feedback on the 3 Waters issues paper expressed considerable concern about the impact that rising standards and expectations have on the affordability of three waters services, particularly for those councils with fewer residents to spread the costs across. Councils facing this challenge feel particularly aggrieved when their local constraints are not factored into decisions made at a regional or national level.

Providing customers with appropriate information to inform their expectations

Customers require information that is understandable, accurate and relevant to their needs and interests in the three waters. Customers can then make well-informed judgements on the level of service that they want to receive from their water provider and the wider impacts on the community. Customers should also understand the trade-offs associated with their desired service levels.

Three waters stakeholders have noted that standards are continually rising, sometimes without proper recognition of the costs and benefits of raising standards. This suggests that service expectations are not being driven by engaged and informed customers. There is scope for new tools to provide a better basis for informing customer expectations, particularly through requirements for 30 year infrastructure strategies in councils' LTPs.

Understanding customer expectations through active, direct engagement

It is not sufficient to simply provide customers with information. A two-way conversation with active customer engagement is crucial to ensure that customers' expectations are fully understood.

Current customer engagement is primarily focused on whether the system is working or not (pressure and disruption to water service). These Key Performance Indicators (KPIs) do not explicitly incorporate wider customer interests, which are left to be developed by other parties. While customer engagement is challenging for any infrastructure provider, there is a general sense that more can be done in this area.

2.2 Effectively managing and investing in physical assets

To deliver reliable services and meet the customer expectations described above, three water infrastructure assets need to be well designed, constructed, operated, maintained and renewed.

Making well-informed investment decisions (right type, right time, right place)

There is a body of knowledge on what constitutes good asset management. Investment decisions should promote the lowest whole-of-life cost and analyse alternative options, including the

potential to avoid capital expenditure through demand management. However, applying asset management disciplines requires detailed and well-understood information on the state of the physical assets and the level of likely demand in the future.

There are reasons to be concerned that investment decisions in the sector are being made with limited information on the state of the assets. Responses to the LGNZ National Information Survey revealed that a large proportion of three waters assets are ungraded, and some councils' entire networks have not been graded according to their condition. In addition, despite the requirement for renewal profiles in councils' LTPs, 16 per cent of respondents to the National Information Survey stated that they do not have a renewals profile for potable water assets, and 20 per cent of respondents did not have a renewals profile for their wastewater assets.

Anecdotal evidence suggests that asset management approaches vary across the three waters. In comparison to water and wastewater, councils appear to take a more reactive approach to managing stormwater assets, making key investments following major storm events.

Managing network assets to deliver on customer expectations

Asset management decisions must enable statutory obligations to be met. A well-functioning sector would also have the ability to incorporate additional priorities identified through directly engaging with customers. Overall, the sector does this well – with most services provided without incident or complaint.

However, some standards and statutory obligations are not always met. The National Information Survey found that provincial and rural councils generally have higher levels of non-compliance with some standards, and while some reported minor breaches, others stated they did not comply with the standards surveyed.

2.3 Effectively recovering costs

The three waters should be financially self-sustaining, so that the revenues generated by the sector are sufficient to recover costs.

Charging users to recover costs, while maintaining affordability

Three waters services should be charged at levels that recover operating costs, and a return on capital to repay any required borrowing, and depreciation. Because of the public good element, stormwater is typically rated as a general rate charge. There is significant flexibility to move money around between general rated items. Potable and Waste Water are typically levied as targeted rates or charges. As a targeted rate they must be separately accounted for often done to scheme level. Any surpluses are retained in activity and scheme related reserves. Where internal borrowing takes place an interest component is charged to those activities where reserve surpluses are used to fund other activities. Conversely the reserve in surplus gets credited interest. So, targeted rates that fund Potable and Waste Water infrastructure have quite specific rules for their disclosure and calculation under (ref: section 15, LGA 2002). In the long term targeted rate payers will only pay for the services for which they are being rated on.

The charges themselves can be expressed as volumetric prices, other user fees, or are met through rates. Within these charging structures there are ways to protect the wellbeing of households and communities that are not able to afford the full cost of service.

Ensuring that financial resources are available when needed at an efficient cost

The three waters should be managed in a way that allows investments to be financed when they are needed. Investments can be financed through debt, equity (such as through a one-off charge on ratepayers or by releasing capital in council's other assets), or through third parties (for example using Private Public Partnerships).

There are concerns that not all councils will be able to access the financial resources needed in the future. Approximately 19 per cent of respondents stated that while they do have a renewals profile for potable water assets, it is not matched or funded. This increased to 27 per cent of respondents responding to the same question on wastewater assets. The National Information Survey also found that current depreciation allowances may be lower than the level needed to replace existing assets in the future at the same cost.⁴ Councils

⁴ A recent report from the Office of the Auditor-General, "Water and Roads: Funding and Management Challenges," also identified risks around the ability to replace and renew existing assets to maintain service delivery. See <http://www.oag.govt.nz/2014/assets>.

have been required to fund depreciation on three waters assets since 1996 which creates a potential funding shortfall when assets need to be replaced.

2.4 Promoting efficient usage

Ideally, customers should see a clear link between their consumption of three waters services, the service levels they receive, and the amount they pay for the services.

There are a range of tools in the three waters sector that can be used to encourage efficient usage. Educational campaigns encourage customers to reduce their demands on the system, particularly when supply is low. Water restrictions add tools to enforce particular behaviours. Rainwater harvesting and other decentralised technologies can increase the supply of potable water. For provision of Stormwater infrastructure different pricing approaches (such as volumetric charges and developer contributions) can also be used to incentivise customers to change their decisions to better reflect the value they receive. For example to incentivise developers to use more permeable surfaces councils might impose lower external costs and require lower development contributions.

There may be room for more councils to trial and implement more effective ways of encouraging efficient use. However, there is no evidence currently available to estimate the benefits this would bring across the sector.

2.5 Continuing to learn and grow

The responsibilities and requirements of WSPs continue to change over time. The three waters sector needs to be adaptable to change and continue to deliver value to its customers in the long term. This requires a sector that monitors its performance, continues to innovate and draws on highly capable people.

Having accessible and accurate data on performance

Access to information on the state of the three waters should be as open and accurate as possible in order to inform customer expectations and asset management decisions. Transparency also fosters greater accountability for WSPs to perform well.

The state of the information on the performance of the three waters has been a recurring theme throughout the 3 Waters project. The National Information Framework has significantly improved the

availability of data by providing a single framework to measure sector outcomes. The leadership of LGNZ in this space has been acknowledged by the National Infrastructure Unit (NIU) in its most recent update of the National Infrastructure Plan Evidence Base.

However, the National Information Framework can be improved. Some stakeholders have voiced concerns over the consistency of responses to the National Information Survey. Some councils provided updated data to clarify their initial responses, which highlights that councils are still learning about the terms used in the survey (which is expected given that this is the first National Information Survey). More can also be done to get value out of the information that has been collected. Council staff (such as asset managers) do not yet have access to the raw data collected through the National Information Survey. While public transparency has been lifted through the issues paper, there is potential to increase transparency on performance.

Encouraging innovation

WSPs should be actively seeking new opportunities to improve their management of the three waters. Innovation can also be promoted through initiatives spreading best practice amongst councils, such as via Equip (LGNZ's Centre of Excellence) and other service providers. A Local Government Risk Agency could well play a significant role in this space.

Innovation ranges from refining best practice processes that are already used, to developing or adopting wholly new processes. For instance, some councils are making use of new tools to support their asset management decisions. However, regional and metro councils have greater access to capabilities like statistics-based growth scenarios and hydraulic models of the schemes. There is insufficient evidence to suggest whether management decisions are being made on the basis of the best available option to meet the identified need, rather than relying on past technologies and approaches.

Accessing the expertise needed

A capable sector attracts, retains and develops the expertise of dedicated three waters staff. Maintaining three waters expertise over time requires succession planning and a commitment from the entire sector to foster sector-specific expertise.

Stakeholder feedback in the 3 Waters project suggests that access to expertise is a particular issue for rural and remote councils, and that the situation is getting worse. Attracting and retaining specialised knowledge is seen as an issue common to most services requiring engineering expertise, and is being experienced across multiple council activities, such as in road asset management.

2.6 What must any approach deliver?

The assessment above indicates that the sector can improve, with some areas being more crucial than others. In order of importance, current sector arrangements need to improve to ensure that:

- There is transparency on performance, and confidence that performance will improve over time;
- Asset management practices are based on consistently high quality information on the state of assets; and
- Decision-making processes recognise and resolve competing interests and trade-offs.

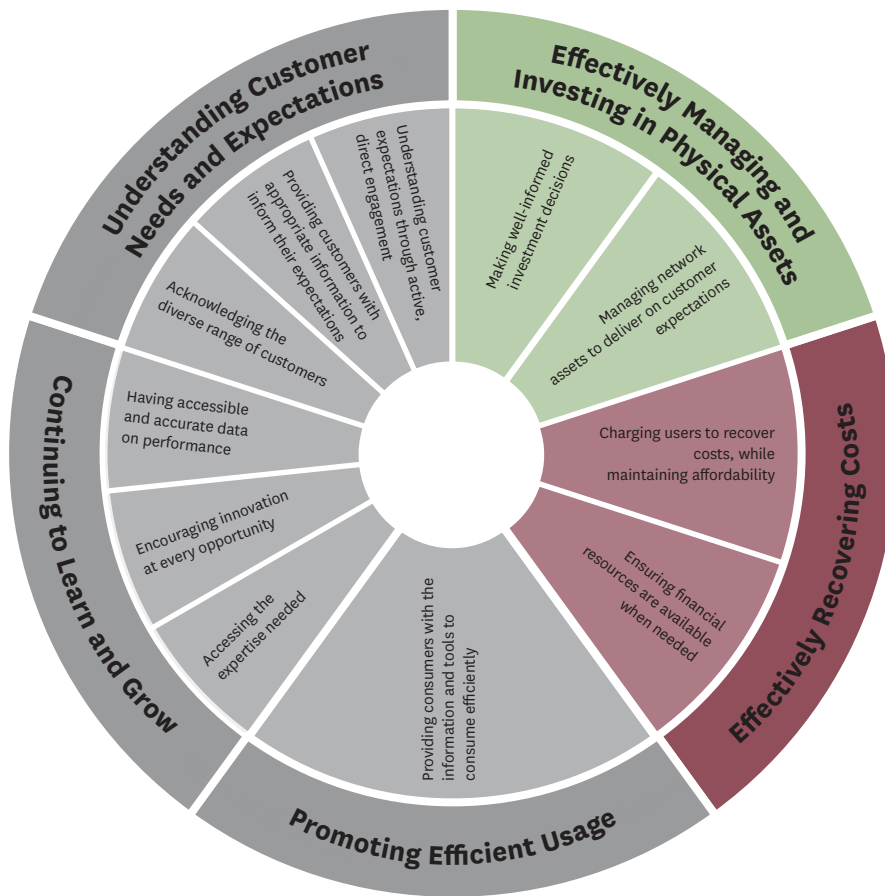
These outcomes determine what any change to the sector must deliver for performance to improve in a meaningful way. Figure 2.2 illustrates how these outcomes relate to the expectations defined on the wheel presented in Figure 2.1.

Sustainable financial management is a key aspect of the second and third outcomes. Rather than being an area of concern in itself, the challenges councils are facing in regards to financial management arise from increasing operating and capital expenditure costs. This can be made more difficult as a result of a lack of knowledge about the state of the physical assets and rising community expectations. We expect the improvements in these areas to have positive flow-on effects for the financial management of the sector.

Figure 2.2: Key outcomes required to improve the performance of the three waters

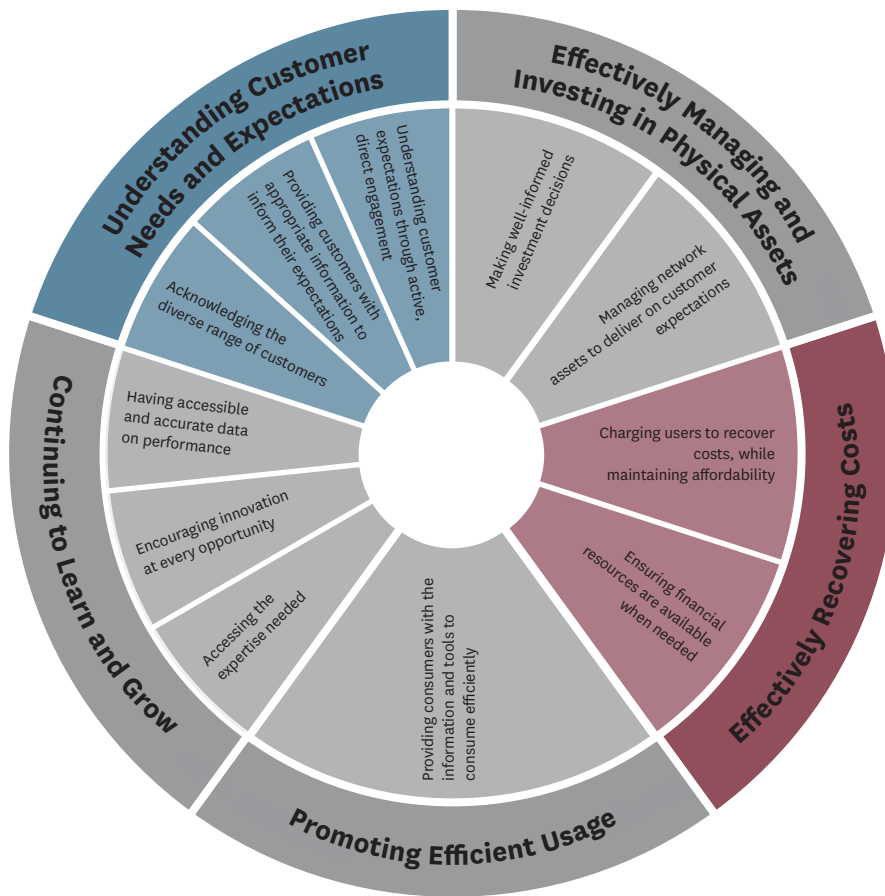


Figure 2.2: Key outcomes required to improve the performance of the three waters – continued



Key Outcome 2:
 Asset management practices that are based on consistently high quality information on the state of assets

Figure 2.2: Key outcomes required to improve the performance of the three waters – continued



Key Outcome 3:
Decision-making processes recognise and resolve trade-offs

3

**A strong,
sector-led
approach**

The evaluation presented in Section 2 demonstrates that the status quo will not continue to meet the outcomes required in the three waters – changes are needed. This section outlines three possible approaches to stimulating positive change in the three waters, which are evaluated on their ability to achieve the required performance improvements.

Rather than tinkering with existing arrangements or completely overhauling the way three waters services are delivered, this paper recommends a middle path – the “strong, sector-led approach.” As the name suggests, this approach calls on the local government sector to commit to improvements in the three waters that focus on the areas that are not currently performing as they should.

3.1 Three broad approaches for change

The outcomes that any change must deliver are spread over various functions of the sector. A suite of actions is therefore needed to improve overall sector performance. We characterise the options for effecting change as three broad pathways that contain several specific and consistent actions. These options are illustrated in 3.1. In essence:

- The **enhanced status quo** generates performance improvements through greater performance transparency and accountability that comes from extending the National Information Framework. Current decision-making processes remain unchanged, meaning this approach relies on individual councils building on current practices and tools to improve performance;

- A **strong, sector-led approach** creates a new, local government-owned body to lead overall sector improvement and collect and maintain sector data and expertise. This body’s decisions on important sector issues would be empowered through a sector-wide multilateral commitment delivered either through a binding multilateral contract; or a co-regulatory regime similar to that operating in the gas sector; or through the mooted Local Government Risk Agency (noting that under all three options decisions on delivery model and investment profile would remain with individual councils, or groups of councils). Individual councils would be obliged or incentivised to meet, for example, data standards and other measures to improve performance, giving the arrangements “teeth”; and
- **Economic regulation** would empower an independent regulator to monitor sector performance and make regulatory decisions that aim to improve performance over time. This approach is currently used in electricity, airports and telecommunications infrastructure in New Zealand.

Figure 3.1: Broad approaches to improving sector performance



3.2 Some options will not deliver on key outcomes

In evaluating these three options, we find that the enhanced status quo and economic regulation options are unlikely to produce the outcomes required. The enhanced status quo fails to provide confidence that sufficient improvements in sector performance will be achieved. On the other hand, economic regulation risks creating a costly, one size fits all regime that fails to recognise the diversity of three waters interests.

The enhanced status quo does not ensure improved performance across the sector

The enhanced status quo would improve performance transparency (Key Outcome 1) through the development of the National Information Framework. This would involve refining the metrics in the survey and continuing to build a common basis for reporting on performance. The National Information Framework survey would also be aligned with other reporting measures such as Water New Zealand's (WNZ) National Performance Review.

The greater transparency that results from these developments may incentivise WSPs to improve performance in various ways. By observing how other (potentially better resourced) service providers manage their assets, WSPs that are struggling would know who to look to for best practice. However, there is a real risk that these changes may not be sufficient to raise performance across the sector, particularly given that those facing multiple challenges may be among those facing challenges in ability to fund infrastructure investment.

The enhanced status quo would also include recent initiatives aimed at improving sector performance. These include the requirement to prepare 30 year infrastructure strategies in LTPs, reporting against DIA performance measures and producing service delivery reviews under section 17A of the Local Government Act 2002. However, these initiatives were developed before the National Information Survey provided the sector with a clear picture of the state of three waters. As a result, these recent initiatives risk creating a "one size fits all" approach to benchmarking and performance standards. That is not to say that consistency in approach is not needed but there must be sufficient flex in the system to allow meaningful comparisons between large cities and small rural communities, for example.

Under the enhanced status quo, sector leadership would continue to be disaggregated. The enhanced status quo therefore relies heavily on the initiative of individual councils. While councils are supported by institutions such as Local Government New Zealand, Water New Zealand, the New Zealand Society of Local Government Managers, and the Institute of Public Works Engineering Australasia, there is currently no centralised source for advice on key three waters issues, nor a means to resolve trade-offs in industry decisions.

The issues in the three waters do not justify the costs and disruption created by economic regulation

In contrast to the enhanced status quo, economic regulation provides more certainty that councils will implement the changes that are needed – but this form of control could come at a significant cost. A key finding of the LGNZ 3 Waters project is that the sector is not fundamentally broken – with services confirmed to be reliably delivered at reasonable cost. This suggests that full-blown economic regulation of the sector is unnecessary, and the costs seen in other sectors regulated this way would likely outweigh the benefits of change.⁵

Economic regulation would provide greater transparency on performance (Key Outcome 1) through requirements for WSPs to disclose information in a standardised format to the regulator. This data could then be analysed and reported, with commentary on the areas where improvements should focus. Economic regulation could also improve asset management practices (Key Outcome 2) by improving the information on the state of physical assets and requiring councils to follow certain practices.

Economic regulation would struggle to recognise and resolve the complex trade-offs involved in industry decisions (Key Outcome 3). As highlighted in Section 1 of this paper, local interests vary between communities over time. While a regulator would try to avoid imposing a 'one size fits all' approach, in reality it will be very difficult to adequately reflect regional and local interests in decisions that are centrally made. As a result, the needs and preferences of local communities would likely be put to one side to achieve standards and expectations that better fit other parts of the country – limiting the ability of WSPs to direct local resources to best meet local objectives.

⁵ In 2013, the Commerce Commission conducted a review of the funding of its regulatory role under Part 4 of the Commerce Act. The review's preferred and "most cost-effective option" costs around \$6 million per year to regulate electricity distributors (which control assets worth less than in the three waters). A further \$4.9 million will be required to review the methodologies for determining prices and quality standards (which occurs every seven years).

3.3 What does the strong, sector-led approach deliver?

The strong, sector-led approach is the only one of the three identified approaches that will deliver, at a reasonable cost, better performance transparency, information to support asset management decisions and processes to resolve trade-offs in important sector decisions.

Co-ordinated sector leadership

The central element of the strong, sector-led approach is the creation of some form of sector agency. Such a body would manage an overarching and common data and information framework in a manner that preserves the ability of individual councils to decide, for their communities, how best to meet appropriate rules and regulations determined to be necessary. Such an entity (established through any of the possible three options) would be owned by local government in a similar manner to which the gas industry regulator is owned (the Gas Industry Company is owned by gas industry participants) or the Local Government Funding Agency is owned by local government entities. The body could be governed by a board composed of independent persons and a mix of local government representatives that reflect the broad range of local interests across rural, provincial and metropolitan areas.

As well as discharging the regulatory role, the body would be a thought leader, conducting reviews and developing recommendations on key industry issues. Based on feedback during the 3 Waters project, we anticipate that the initial work plan would include:

- setting standards for data quality and reporting;
- setting standard processes to guide WSPs' investment decisions, particularly in the area of asset renewals;
- determining the merits of managing stormwater jointly with or separately from water and wastewater;
- reviewing and recommending optimal funding options for councils based on their specific circumstances, such as service area, resource scarcity and cost structure; and

Suggesting for local authority consideration an optimal delivery structure in particular areas and recommending WSPs adopt a service model from a menu of options.

The new body would have other means to encourage councils to embrace the changes needed to improve performance across the three waters. For example, it would co-ordinate the sharing

of councils' experiences and best practice between councils facing similar circumstances, and could support any struggling performers through particularly challenging processes and issues. It would lead the development of innovative ways to further improve understanding of the state of the three waters assets and services to improve decision making. It could also provide some councils with funding to support implementation of its decisions, or use funding or access to funding as an incentive for improving performance.

The three options presented consider an effective and efficient way of establishing the body that would undertake this work.

The body could be created through a sector-wide multilateral arrangement, where all parties agree to the rules, processes and data standards determined through the entity's processes. The agreement would ensure that the body has sufficient powers to meet its mandate on key sector issues, providing confidence that sector performance will be improved. A successful multilateral contract arrangement with robust enforcement provisions governed the electricity market between 1996 and 2004. To be successful all councils would have to agree the terms of any multilateral contract and that agreement would have to bind any delivery agency they utilise.

Alternatively, the body could be created on similar lines to the Gas Industry Company under the Gas Act 1992. This model is known as co-regulation as it sits under a broader government mandate to achieve certain outcomes but is empowered to pursue those outcomes in a more collaborative and cost-effective manner than full blown economic regulation. This is discussed further below.

Finally, if the proposed Local Government Risk Agency proceeds then it could perform the required role. It is likely to need all the requisite data to carry out its primary role of advising local governments on risk identification and management in any event. Accordingly it would be well-placed to carry out the three waters task. This would also obviate establishing two separate agencies when one could do the task.

Improved performance transparency

A strong, sector-led approach will maintain and develop the National Information Framework under the leadership of the new entity. This will involve aligning the National Information Framework with other surveys and reporting metrics such as the new requirements under section 101B of the Local Government Act 2002 (the 30 year infrastructure strategy requirement) to provide water sector managers with direct access to the data. Extending the National Information Framework will help to address concerns about the comparability and consistency of data reporting by ensuring that

WSPs understand and use a single set of terms and metrics relevant to council type.

The new body would develop benchmarks that councils would report against to provide clear, consistent reporting to the sector and central government on performance. To improve transparency and a focus on lifting performance, the body would publish results against relevant and appropriate benchmarks to highlight which councils perform noticeably better or worse compared to similar councils and where opportunities for the sharing of best practice can be achieved. This, over time, will drive a culture of innovation and responsiveness. Such reporting will also provide possible explanations for any differences in performance across the country and by size of council – helping to improve the general level of understanding of the challenges, costs and risks facing service delivery by WSP categories.

Developing and maintaining the National Information Framework and related services will require dedicated financial support. Under the self regulatory option it would be expected that the sector would provide the majority of the funding. However, given that the improved transparency achieved to date has produced benefits that contribute to national interests, there may be a case for some funding for specific workstreams to be met by central government.

Consistent and improved asset management practices

Greater performance transparency under the strong, sector-led approach will help to improve the quality of asset management decisions through providing better information on the state of the physical assets. Over time this should incentivise better and more efficient asset management practices within councils.

The body could, for example, require the sector to make renewals decisions that are informed by recent condition assessments, as opposed to simply relying on the asset's age profile. It could ensure that these practices are broadly consistent across the country, but are implemented in ways that reflect local circumstances and challenges. It could also evaluate and promote innovative approaches to asset management. Where possible, it would set appropriate standards for asset management that councils report against in the National Information Framework.

Asset management could also be improved by reviewing and recommending service delivery models that incentivise efficiency. The body could work with councils to determine the appropriateness of whether to establish “network utilities” (considering options like pooled services, joint outsourcing and council-controlled organisations) by providing WSPs with a menu of options from which they could choose. It could then advise on the performance management contracts between new utilities and the councils they serve.

The extent of improvements to asset management practices will depend on the decisions made by the new body. However, there are already councils using solid asset management practices and the strong, sector-led approach will better enable existing strong performers to share their experiences with other councils.

3.4 How will the strong, sector-led approach be implemented?

This sub-section describes the specific steps required to successfully implement the strong, sector-led approach.

A multilateral arrangement needs full support from the sector

As described above, a new body delivered by means of a multilateral contract requires all parties to agree the terms of that contract. The chief advantage of such an approach is cost. Self-regulatory mechanisms generally deliver the required outcomes at least cost particularly where competitive service provision is an aspect of the delivery model. However, the number of councils (78) impacted by these proposals is large and consequently the working assumption being taken is that attaining a commonality of view amongst so many different players is likely to be challenging, but not impossible. An additional factor to consider is how agencies, used by councils to deliver water services, could also be bound particularly when they have distinct legal personality from council.

Although this option should continue to lie on the table, the National Council of LGNZ is of the view that a more pragmatic approach would be to move to explore either a co-regulatory model or utilise the proposed Local Government Risk Agency (if it proceeds).

Co-regulation

The Gas Act 1992 empowers (section 43ZL) the Governor-General to approve on the recommendation of the responsible Minister a body to be the “industry body” for the purposes of the statute. That body is the Gas Industry Company (GIC). The GIC is industry owned but is governed by a board comprising a majority of independents and elected industry representatives. It has an independent chair.

The GIC’s role is to regulate the industry and achieve the requirements set out in section 43ZN. Essentially, they are to ensure that gas is delivered to existing and new customers in a safe, efficient and reliable manner. There are other more specific objectives centred on efficient investment and promoting sustained downward pressure on costs. Sitting above the GIC is the Government’s Policy Statement on Gas Governance which sets out the outcomes that the Government is expecting over time and against which the GIC ultimately is measured. However, the key aspect of this model is to delegate to the GIC (an industry body) the responsibility of assisting the gas industry to achieve these outcomes in a way that all players in the industry can contribute to and ultimately endorse.

Such a model could be replicated in the water sector and if successfully implemented would address both the legitimate concerns of Government for a more effective oversight regime in the water sector and the concerns of the local government sector that the model be appropriate to the sector being regulated, collaborative in its nature, and less costly than full blown economic regulation. Implementing this model does not foreclose moving to full economic regulation and that in itself should incentivise all parties to do their best to ensure the model’s success.

Local Government Risk Agency (LGRA)

A third option has recently emerged, which LGNZ’s National Council believes warrants consideration. In June 2015, LGNZ and the Crown announced a joint project to assess the business case to establish a local government owned LGRA. The project will deliver a positive or negative business case for an LGRA no later than June 2016. The project is overseen by an establishment board independently chaired and comprised of sector representatives and independents. Treasury has observer status.

The underlying rationale for considering an LGRA is the proposition that by working collectively the sector could significantly improve both its understanding of risk and management of risk in the sector. Three waters infrastructure is a significant and costly aspect of the local government sector’s overall risk profile. To carry out its task to assist the sector in managing risk, the LGRA would require detailed data on the state of local government assets, detailed knowledge of asset management plans, and a detailed understanding of renewal and extension profiles – all of which would be required by a three waters sector body.

It is also likely to be the option that could most quickly be implemented because empowering legislation would not be required nor would the agreement of all water sector participants be required (as under the multi-lateral agreement option).

Specific steps to implement the strong, sector-led approach

This paper constitutes the first step in the process. Feedback on the concepts and options set out in this paper are sought so that the National Council of LGNZ, the wider membership, and central government can be informed as to how the three waters sector would prefer to proceed.

If support for a sector-led approach exists, and a preferred option is identified, then LGNZ would move in conjunction with its members and stakeholders to a more detailed institutional design phase. Discussions with central government to ensure alignment with broader public policy objectives would also be required. Such a process also allows time for the sector to determine whether it wishes to proceed to establish a LGRA, and if so, whether this additional three waters functionality should form part of its mandate.

Separately, LGNZ also will review whether requirements under the Local Government Act 2002 pose challenges for the development of the multilateral, co-regulatory approach, or LGRA options which might require legislative resolution to overcome. The objective is to have one set of effective requirements on councils rather than many sets of common or contradictory requirements.

In the event a new body is created, it is possible that it could be in a position to agree on priority areas within six months of its creation. Many of the priorities to be included in its work plan can be drawn from this paper. These include determining how best to develop the National Information Framework, developing guidelines or rules on asset management to respond to the growing need for renewals, and investigating funding options for the three waters.

Conclusion

We look forward to receiving your feedback on the options set out in this paper.

Acronyms and abbreviations

| | |
|-------|---|
| DIA | Department of Internal Affairs |
| DWS | Drinking Water Standards |
| GIC | Gas Industry Company |
| IPWEA | Institute of Public Works Engineering Australasia |
| KPIs | Key Performance Indicators |
| LGNZ | Local Government New Zealand |
| LTPs | Long Term Plans |
| NIU | National Infrastructure Unit |
| OAG | Office of the Auditor-General |
| PPP | Public Private Partnership |
| SOLGM | Society of Local Government Managers |
| WSA | Water Services Association |
| WSP | Water Service Provider |



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