



Notice is hereby given that an Ordinary meeting of Southland District Council will be held on:

Date: Wednesday, 15 September 2021
Time: 9am
Venue: Via Zoom (digital technology)

Council Agenda OPEN

MEMBERSHIP

Mayor	Mayor Gary Tong
Deputy Mayor	Ebel Kremer
Councillors	Don Byars
	John Douglas
	Paul Duffy
	Bruce Ford
	Darren Frazer
	George Harpur
	Julie Keast
	Christine Menzies
	Karyn Owen
	Margie Ruddenklau
	Rob Scott

IN ATTENDANCE

Chief executive	Cameron McIntosh
Committee advisor	Fiona Dunlop

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Full agendas **are available on Council's website**
www.southlanddc.govt.nz

Note: The reports contained within this agenda are for consideration and should not be construed as Council policy unless and until adopted. Should Members require further information relating to any reports, please contact the relevant manager, Chairperson or Deputy Chairperson.

Health and safety – emergency procedures

Toilets – The toilets are located outside of the chamber, directly down the hall on the right.

Evacuation – Should there be an evacuation for any reason please exit down the stairwell to the assembly point, which is the entrance to the carpark on Spey Street. Please do not use the lift.

Earthquake – Drop, cover and hold applies in this situation and, if necessary, once the shaking has stopped we will evacuate down the stairwell without using the lift, meeting again in the carpark on Spey Street.

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1 Apologies

At the close of the agenda no apologies had been received.

2 Leave of absence

At the close of the agenda no requests for leave of absence had been received.

3 Conflict of Interest

Councillors are reminded of the need to be vigilant to stand aside from decision-making when a conflict arises between their role as a councillor and any private or other external interest they might have.

4 Public Forum

Notification to speak is required by 12noon at least one clear day before the meeting. Further information is available on www.southlanddc.govt.nz or phoning 0800 732 732.

5 Extraordinary/Urgent Items

To consider, and if thought fit, to pass a resolution to permit the Council to consider any further items which do not appear on the Agenda of this meeting and/or the meeting to be held with the public excluded.

Such resolution is required to be made pursuant to Section 46A(7) of the Local Government Official Information and Meetings Act 1987, and the Chairperson must advise:

- (i) The reason why the item was not on the Agenda, and
- (ii) The reason why the discussion of this item cannot be delayed until a subsequent meeting.

Section 46A(7A) of the Local Government Official Information and Meetings Act 1987 (as amended) states:

"Where an item is not on the agenda for a meeting,-

- (a) that item may be discussed at that meeting if-
 - (i) that item is a minor matter relating to the general business of the local authority; and
 - (ii) the presiding member explains at the beginning of the meeting, at a time when it is open to the public, that the item will be discussed at the meeting; but
- (b) no resolution, decision or recommendation may be made in respect of that item except to refer that item to a subsequent meeting of the local authority for further **discussion."**

6 Confirmation of Council Minutes

6.1 Meeting minutes of Council, 24 August 2021

Three Waters Reform

Record no: R/21/9/49803
Author: Matt Russell, Group manager infrastructure and environmental services
Approved by: Cameron McIntosh, Chief executive

☐ Decision ☒ Recommendation ☐ Information

Purpose

- 1 The purpose of this report is to provide information on the programme of three waters reforms currently underway.
- 2 This report updates Council on:
 - the Government's 30 June 2021 and 15 July 2021 Three Waters Reform announcements, which change the reform process previously outlined in 2020
 - the specific data and modelling Council has received to date
 - the implications of the revised Three Waters Reform proposal for Council and alternative service delivery options
 - next steps (including uncertainties).
- 3 Further, this report seeks to generate and outline specific feedback Council would like to either convey to or, request from, central government in relation to the reform proposal with a view to inform next steps with the programme of reforms.

Recommendation

That the Council:

- a) **receives the report titled “Three Waters Reform”** dated 8 September 2021.
- b) determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter
- d) **notes the Government’s 30 June and 15 July 2021 Three Waters Reform** announcements
- e) **notes officer’s advice on the accuracy of the information provided to Council in June** and July 2021 as a result of the request for information and Water Industry Commission for Scotland modelling processes
- f) **notes officer’s analysis of the impacts of the Government’s proposed three water** service delivery model on the Southland District community and its wellbeing, including the impacts on the delivery of water services and water related outcomes, **capability and capacity, on Southland District Council’s sustainability (including** rating impact, debt impact, and efficiency) and
- g) notes the analysis of three waters service delivery options available to Council at this time provided in a series of independent analyses by consultants Morrison Low to ensure risks, opportunities and issues generated by the potential reform are evident to the extent possible with information available. These are:
 - Regional situation analysis (February 2021)
 - Cross regional current state (March 2021)
 - Southland District Council Impacts Assessment (June 2021)
 - **Situation analysis Ngāi Tahu Takiwā (May 2021), and**
 - Review of Water Industry Commission for Scotland data (August 2021)
- h) **notes that a decision to support the Government’s preferred three waters service** delivery option is not lawful (would be ultra vires) at present due to section 130 of the Local Government Act 2002, which prohibits Council from divesting its ownership or interest in a water service except to another local government **organisation, and what we currently know (and don’t know) about the Government’s** preferred option
- i) notes that Council cannot make a formal decision on a regional option for three waters service delivery without doing a Long Term Plan (LTP) amendment and ensuring it meets section 130 of the Local Government Act 2002

- j) notes that the Government intends to make further decisions about the three waters service delivery model after 30 September 2021
- k) **notes that it would be desirable to gain an understanding of the community's views** once Council has further information from the Government on the next steps in the reform process
- l) requests the chief executive to seek guidance on and/or give feedback to the Government on:
 - **the following areas of the Government's proposal that Council needs more** information on [Insert areas]
 - **the following changes to the Government's proposal/process** [Insert areas]
- m) notes that Council has an estimated stranded cost of \$3 million which is significantly more than the no worse off funding currently allocated at \$2 million over two years
- n) notes that the chief executive will report back further once they have received further information and guidance from Government [Local Government New Zealand and Taituarā] **on what the next steps look like and how these should be managed.**

Decision making compliance statements

Significance

- 4 The future of water services delivery is a significant issue. This report however does not commit Council to a decision relating to that reform. Instead it provides initial analysis of the reform proposals for Council's information and highlights the uncertainties around information and next steps. As such it is considered that this report does not meet the threshold for significance under Council's significance and engagement policy.

Risks / Legal and financial implications

- 5 Significant risks, legal responsibility and financial implications have been identified in analysing the reform proposals and completing an analysis of options over recent months. However, there is no decision required, other than to note those issues and to request further information from Government if Council wishes to, to reduce the risks and implications to Council and its communities

Te Tiriti and involvement of Maori in decision-making considerations

- 6 The issues covered in this paper are important for Māori. The Crown is currently leading the engagement with iwi/Māori, mana whenua. Council has also been engaging with local and regional mana whenua through the Otago and Southland collaboration since the proposed reforms were announced.

Engagement and consultation

- 7 Council is not required to consult at this time. Further advice regarding any future consultation requirements will be provided after September 2021. In the interim Council has undertaken a

programme of information-sharing with its community based on what it knows at various milestones throughout the discussion with central government.

Attachments

A 3-Waters Taituara Model Report - Southland District Council [↓](#)

Proposed Three Waters Reform

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Executive Summary

This report updates Council on:

- the Government's 30 June 2021 and 15 July 2021 Three Waters Reform announcements, which change the reform process previously outlined in 2020
- the specific data and modelling Council has received to date
- the implications of the revised Three Waters Reform proposal for Council and alternative service delivery options
- next steps (including uncertainties).

Further, this report seeks to generate and outline specific feedback Council would like to either convey to or, request from, central government in relation to the reform proposal with a view to inform next steps with the programme of reforms.

Summary Recommendations

That Council:

1. **notes** the Government's 30 June and 15 July 2021 Three Waters Reform announcements
2. **notes** officer's advice on the accuracy of the information provided to Council in June and July 2021 as a result of the RFI and WICS modelling processes
3. **notes** officer's analysis of the impacts of the Government's proposed three water service delivery model on the Southland District community and its wellbeing, including the impacts on the delivery of water services and water related outcomes, capability and capacity, on Southland District Council's sustainability (including rating impact, debt impact, and efficiency) and
4. **notes** the analysis of three waters service delivery options available to Council at this time provided in a series of independent analyses by consultants Morrison Low to ensure risks, opportunities and issues generated by the potential reform are evident to the extent possible with information available. These are:
 - Regional situation analysis (February 2021)
 - Cross regional current state (March 2021)
 - SDC Impacts Assessment (June 2021)
 - Situation analysis Ngāi Tahu Takiwā (May 2021), and
 - Review of WICS data (August 2021).
5. **notes** that a decision to support the Government's preferred three waters service delivery option is not lawful (would be ultra vires) at present due to section 130 of the Local Government Act 2002 (LGA), which prohibits Council from divesting its ownership or interest in a water service except to another local government organisation, and what we currently know (and don't know) about the Government's preferred option
6. **notes** that Council cannot make a formal decision on a regional option for three waters service delivery without doing a Long Term Plan (LTP) amendment and ensuring it meets section 130 of the LGA
7. **notes** that the Government intends to make further decisions about the three waters service delivery model after 30 September 2021
8. **notes** that it would be desirable to gain an understanding of the community's views once Council has further information from the Government on the next steps in the reform process

1

9. **requests** the CEO to seek guidance on and/or give feedback to the Government on
- the following areas of the Government's proposal that Council needs more information on
[INSERT AREAS]
 - the following changes to the Government's proposal/process [Insert areas]
10. notes that Council has an estimated stranded cost of \$3million which is significantly more than the no worse off funding currently allocated at \$2million over two years
11. **notes** that the CEO will report back further once they have received further information and guidance from Government [LGNZ and Taituarā] on what the next steps look like and how these should be managed
12. **in noting the above**, agrees it has given consideration sections 76, 77, 78, and 79 of the Local Government Act 2002 and in its judgment considers it has complied with the decision-making process that those sections require (including, but not limited to, having sufficient information and analysis that is proportionate to the decisions being made).

Summary and Background

Summary

13. Over the past four years central and local government have been considering the issues and opportunities facing the system for regulating and managing the three waters (drinking water, wastewater, and stormwater) – Three Water Reform. The background is provided in Attachment 1 including information on Taumata Arowai (which became a new Crown entity in March 2021 and will become the dedicated water services regulator later this year).
14. The Government has concluded that the case for change¹ to the three waters service delivery system has been made [please see Attachment 2 for further information] and during June and July 2021 it released information and made announcements on:
 - the direction and form of Three Waters Reform, including proposed new WaterService Entities (four and their indicative boundaries), their governance arrangements and public ownership
 - individual (WICS) Council data based on the information supplied under the RFI process
 - a package of investment (\$2.5b) for councils to invest in the future for local government, urban development, and the wellbeing of communities, ensuring no council is worse off as a result of the reforms, and funding support for transition
 - an eight-week process for councils to understand the implications of the reform announcements, ask questions and propose solutions and for Government to work with councils and mana whenua on key aspects of the reform (including governance, integrated planning and community voice).
15. Council has been placed in Entity D (Ngāi Tahu Takiwā)
 - Our 'better off' funding allocation is \$19,212,526.
 - Our worse off allocation is estimated to be approximately \$2,000,000.
16. While the Government and LGNZ consider that national case for change has been made, each council will ultimately need to make a decision based on its local context if the process to join one of the proposed entities remains voluntary.
17. This report provides Council with the staff analysis of the information provided and assesses the Government's proposal and currently available service delivery options. In preparing this report officers have used the Local Government New Zealand, Taituarā, and Te Tari Taiwhenua Internal Affairs guidance² to assist Council to understand the information that has been provided to date and enable Council to prepare for future decisions and consultation and engagement with communities. Key risks considered are documented in the report.

In summary, whilst there are some inaccuracies associated with the WICS generated figures for SDC, our Council specific information looks broadly correct. Given that Council has not been asked to make a decision, other than peer reviews of the modelling and underlying assumptions (which always carry a degree of uncertainty) no further analysis of this work has been done or is proposed. As such, and in conjunction with the Otago and Southland three waters collaboration (supported by Morrison Low), staff have focussed on the options and their implications for Council and the community. This context is covered below.

¹ [Transforming the system for delivering three waters services \(dia.govt.nz\);](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/transforming-the-system-for-delivering-three-waters-services-the-case-for-change-and-summary-of-proposals-30-june-2021.pdf)
[https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/transforming-the-system-for-delivering-three-waters-services-the-case-for-change-and-summary-of-proposals-30-june-2021.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/transforming-the-system-for-delivering-three-waters-services-the-case-for-change-and-summary-of-proposals-30-june-2021.pdf)

² <https://www.lgnz.co.nz/assets/Three-Waters-Guidance-for-councils-over-the-next-eight-weeks-FINAL.pdf>

Option A - Government proposal:

1. The greater financial capability, efficiency, affordability and community/water benefits (as published by Government) of delivering three waters to the community by the proposed new Water Services Entities are likely to be of significant value if they can be realised.
2. Our analysis suggests there should be reduced risk to Council (non-compliance with standards and processes, lower costs for delivery, procurement). Council also would not be responsible if a non-council supplier couldn't meet standards.
3. There are risks that need to be mitigated including integration with spatial, growth and local planning and transparent prioritisation, households' ability to pay, and Council's financial sustainability. There are several risks associated with transition to this model, many of which are outside of Council's control and are noted in the transition section of the report.
4. The average three waters household costs for Southland District Council residents is estimated by DIA under the government proposal to be \$1,640 in 2051 (real, uninflated).

Option B - Delivery of three water services by Council:

5. The potential benefits of this option include greater Council control and more certainty over local infrastructure integration (planning and delivery) with land use plans and council objectives. Council however faces significant risks over the longer term, including a potentially significant uplift in costs, in meeting the new water standards, environmental requirements and achieving compliance. The ability of non-Council water supplies to meet standards and requirements also poses a high risk to Council and the community. This is particularly relevant to Southland District Council, given that only 33% of the district is connected to a Council water supply.
6. The causes of most of these risks are not within Council's control. This makes mitigation difficult, and many potential mitigation options (such as greater investment, larger costs than currently planned, lower levels of service, compliance risk) may not be palatable to Council or the community.
7. There is nothing to prevent Council from incorporating formal processes for co governance consultation or engagement with local Iwi or Rūnanga in decision making for three waters matters like some other councils have.
8. The average three waters household costs for Southland District Council if Council continued to be a service provider is estimated by DIA to be \$8,690 in 2051 (real, uninflated).
9. SDC has a number of tools at its disposal to address affordability issues within the district (such as the use of rating differentials, UAGCs, rates postponement policies, and rates remissions) which may not be available to a water services entity.

Sensitivity testing of options A and B

Sensitivity testing undertaken by Morrison Low on the DIA data showed that:

10. When the underlying assumptions regarding percentage of revenue from households and number of connected properties are adjusted, the forecast charges for Southland are likely to be approximately 1/3 lower than included in the DIA / WICS reports for Council.
11. It is considered that the scale of the difference between the entity and Council scenarios is likely somewhat less than WICS analysis indicates.
12. It is however very unlikely that household charges for ratepayers in SDC could be lower from continued Council service delivery than under Entity D.

The review found that, while the projected household charges from the WICS analysis may be the subject of some contention, they were found to be directionally accurate. That is, household charges will increase in the new regulatory environment, and Council ratepayers are likely to have lower household charges under the proposed entity delivery model than through continued Council service delivery. This is consistent with Morrison Low's earlier analysis of a Ngāi Tahu Takiwā entity undertaken for the Otago and Southland councils (refer to Section 1.2 and Appendix D).

Option C - Combined Service Delivery as Otago Southland:

13. This option was examined by Council as part of the Otago Southland Collaboration during early 2021 and is included in the SDC Impact Report presented in Appendix C.
14. The average three waters household costs for Southland District Council residents was estimated by Morrison Low under an Otago and Southland model to be \$2,001 in 2031 (real, uninflated).
15. Otago Southland - would include the territorial authorities with Otago and Southland, and most likely would need to be the result of a voluntary process that would take place outside of the current government driven reform.
16. The issues, risks and opportunities with an Otago Southland model are generally similar to those for a council only model when compared to the Entity approach, albeit with some scale differences. These differences do not materially affect the Council vs Entity discussion and so are not addressed in detail in this report.
17. The challenges for an Otago Southland regional water entity to be able to borrow sufficient funds to meet the required investment programme is considered a major impediment to the viability of an Otago Southland three waters entity.

Option D - Do Nothing:

18. Doing nothing is not an option, as Council must continue to deliver services
19. Under Option A, Council alone bears the risk of meeting the new water standards, environmental requirements and achieving compliance. There are also implications and challenges for non-Council supplies to meet water quality requirements, with the risk that these supplies might default to Council in the future.

Further to the above, it is important to note that other Government reforms (Resource Management Act, Future of Local Government) have implications on, and pose opportunities and challenges for each option.

Managing transition risks are likely to pose a greater challenge for Council (and others in its grouping) than the risks associated with the Government proposal.

Were Government's proposal to proceed, effective management of the transition by Council, Government and partners will be critical.

The law currently prohibits Council's deciding to opt-in to the current proposal (given section 130 of the Local Government Act 2002 and what we know about this option at present). Current decision-making requirements, including the need to take account of community views and strategic nature of the assets involved, would also preclude Council deciding to opt-in at this time without consultation.

Similar requirements apply if the council wishes to consider alternative arrangements that involve asset transfers, divestment, change in ownership and or the setting up of a Council Controlled Organisation (CCO) to deliver water services in the future.

There are a number of issues, concerns and uncertainties for the Government and councils to work through before a robust Council decision (and decision-making process) can be undertaken.,

There is no expectation that councils will make a decision to opt-in (or out) or commence community engagement or consultation until there is greater clarity around reform timeframes, detail and working within the existing legislative and decision-making framework. This clarity is not expected until the last quarter of 2021.

By the end of September, Councils have been specifically asked to provide feedback on three outstanding issues during the next eight weeks:

- ensuring all communities have both a voice in the system and influence over local decisions
- effective representation on the new water service entities' oversight boards, including preventing future privatisation
- ensuring integration between growth planning and water services planning.

Staff therefore request Elected Members consider the issues that arise from the Government's proposal and any potential solutions so these can be raised with Government and LGNZ before the end of September 2021.

Government decisions on entity boundaries, governance, transition and implementation arrangements will occur after the eight week-process ends (30 September 2021).

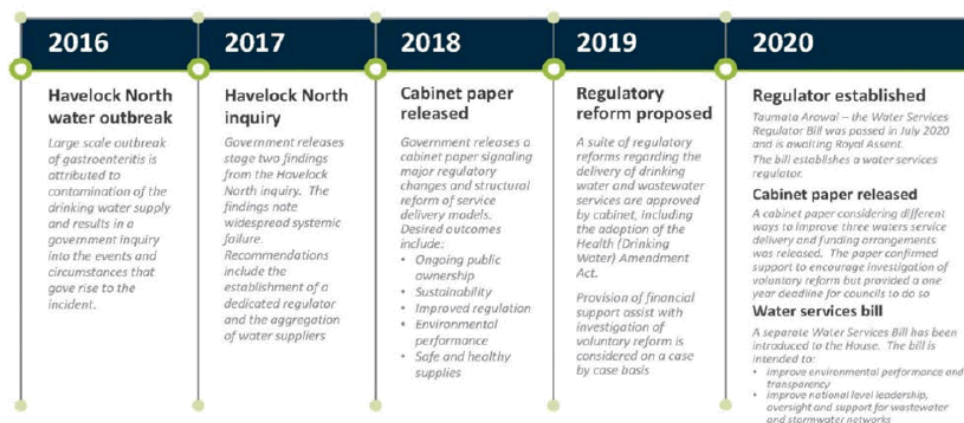
On the assumption that the reform goes ahead, it is anticipated that councils will continue to deliver water services until at least early 2024 and council involvement in transition will be required throughout.

Background and context

20. Following the serious campylobacter outbreak in 2016 and the Government's Inquiry into Havelock North Drinking Water, central and local government have been considering the issues and opportunities facing the system for regulating and managing the three waters (drinking water, wastewater, and stormwater).
21. The focus has been on how to ensure safe drinking water, improve the environmental performance and transparency of wastewater and stormwater network and deal with funding and affordability challenges, particularly for communities with small rating bases or high-growth areas that have reached their prudential borrowing limits.
22. The Government's stated direction of travel has been for publicly-owned multi-regional models for (with a preference for local authority ownership). The Department of Internal Affairs (DIA), in partnership with the Three Waters Steering Committee (which includes elected members and staff from local government commissioned specialist economic, financial, regulatory and technical expertise to support the Three Waters Reform Programme and inform policy advice to ministers.
23. The initial stage (Tranche 1 - MOU, Funding Agreement, Delivery Plan and RFI process) was an opt in, non-binding approach. It did not require councils to commit to future phases of the reform programme, to transfer their assets and/or liabilities, or establish new water entities. The 2020 indicative reform programme and next steps (anticipated at that stage) can be found in Attachment 1.
24. Council completed the RFI process over Christmas and New Year 2020/21 and the Government has used this information, evidence, and modelling to make preliminary decisions on the next stages of reform and has concluded that the case for change has been made [Attachment 2].

A summary of the timeline is provided in Figure 1 below:

Figure 1 Case for change timeline



Council, as part of the Otago Southland three waters collaboration, commissioned a series of independent reports by Morrison Low to ensure they were informed of risks, opportunities and issues generated by the potential reform. These are attached in Appendices A to E. The reports are listed below along with a key takeout from each.

Regional situation analysis (February 2021)

There is a risk around deliverability of the increased infrastructure programmes. The Otago and Southland Councils, like most New Zealand councils, have generally struggled to deliver their capital programmes each year. Yet, the forecast investment required in three waters for the eight councils will more than double from \$101M in 2020 to an average of \$230M per annum each year over the next ten years. There is a real risk that this is not able to be achieved.

Cross regional current state (March 2021)

There is a risk that even with funding available, the capacity to deliver programmes with such large scope of work does not exist [in the two regions]. While correctly identifying the need to increase capital investment, up to more than double the 2019 programme levels, there is legitimate concern about the capacity of the councils to deliver increased capital investment programmes, with four of the eight councils delivering only half or less of their 2020 capital works programmes. Moreover, those that were able to deliver the full value of their capital works programmes will still be required to uplift their total amount of delivery further still to meet planned investment requirements.

SDC Options and Impacts Assessment (May 2021)

Significant changes will flow from the three waters reform that has already taken place and will take place regardless of whether Councils opt in or opt out of the proposed water entities. Legislative, regulatory and community expectations of standards are changing. There is therefore no status quo option. Three waters service delivery will change and every council in New Zealand must change in some way. The only means by which the future standards can be complied with is investment.

The removal of three waters from Council itself would clearly create some disruption to Council's current operating structure, which in some cases may be significant.

1. SDC will need to review its structure and service delivery model to most effectively be a local government organisation providing a wide range of services and activities to its communities. The full extent of the impact on council will be more easily identified once the outcomes of the Resource Management Act and Future of Local Government reviews are complete.

2. SDC's three waters debt would disappear leaving the Council better able to borrow for investment into other activities or services.
3. Total revenue in 2024 (without three waters revenue) would reduce from \$96.3 million to \$78.5 million but due to the greater reduction in revenue than operating costs, there is likely to be approximately \$3 million of unfunded expenditure which may be stranded in Council. This figure is currently estimated at \$2 million by DIA for compensation (as part of the 'no worse off' package) each year for 2-years post reform if SDC was to opt-in.

Situation analysis Ngāi Tahu Takiwā (May 2021); and

The combined three waters capital investment across the Takiwā has grown by 70% since the 2018 LTPs – from \$3 to \$5.1 billion. This signifies the step change being driven by three waters reform.

The Morrison Low estimate indicates the scale of the investment may be greater than that and could be as high as \$8.5 billion.

Review of WICS data (August 2021).

The level of investment that WICS has assumed is required over the next 30 years. WICS has assumed a ten-year investment requirement of \$350m, which is three times higher than SDC's own estimates.

In summary, the sensitivity testing showed that:

1. When the underlying assumptions regarding percentage of revenue from households and number of connected properties are adjusted, the forecast charges for Southland are likely to be approximately 1/3 lower than included in the WICS reports for Council.
2. The scale of the difference between the entity and council scenarios is likely somewhat less than WICS analysis indicates.
3. It is unlikely that household charges for ratepayers in SDC could be lower from continued council service delivery than under Entity D.

Overall, we note that while the projected household charges from the WICS analysis may be the subject of some contention, in our view they are directionally accurate. That is, household charges will increase in the new regulatory environment, and SDC ratepayers are likely to have lower household charges under the proposed entity delivery model than through continued council service delivery. The cost gap between council service delivery and entity delivery is likely to widen over time also, particularly as the age of the infrastructure increases impacting on investments needs.

Government's June and July 2021 announcements and information releases

1. In June 2021 a suite of information was released by Government that covered estimated potential investment requirements for New Zealand, scope for efficiency gains from transformation of the three waters service and the potential economic (efficiency) impacts of various aggregation scenarios.³
2. In summary the modelling indicated a likely range for future investment requirements at a national level in the order of \$120 billion to \$185 billion, an average household cost for most councils on a standalone basis to be between \$1910 and \$8690 by 2051. It also estimated these average household costs could be reduced to between \$800 and \$1640 per household and efficiencies in the range of 45% over 15-30 years if the reform process went ahead. An additional 5,800 to 9,300 jobs and an increase in GDP of between \$14b to \$23b in (Nett Present Value, NPV terms over 30 years were also forecast.

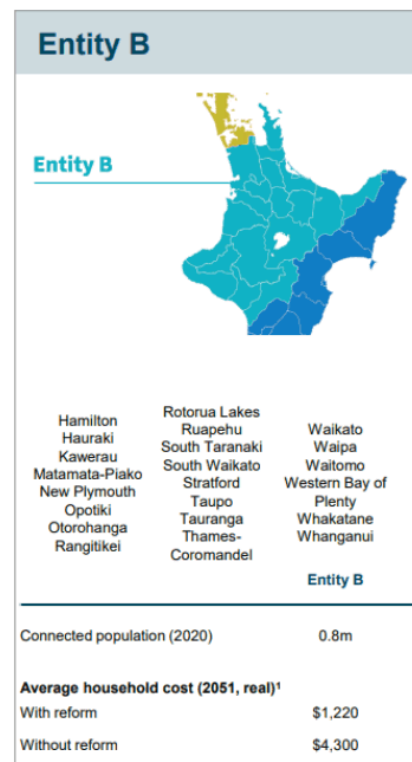
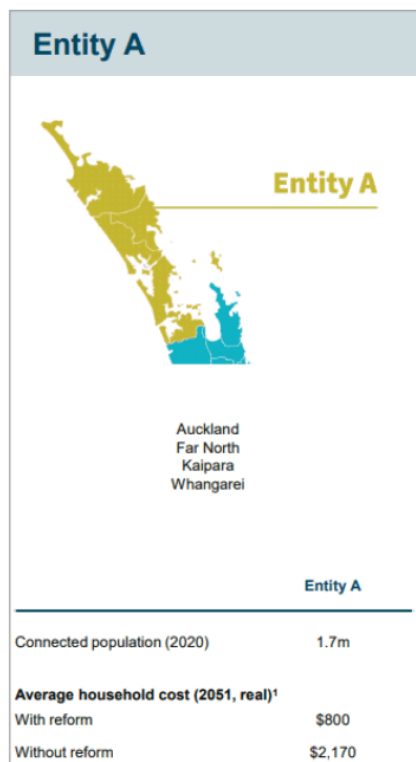
³ This information, including peer reviews and the Minister's briefing can be accessed at: <https://www.dia.govt.nz/Three-Waters-Reform-Programme> and [release-of-second-stage-evidence-base-released-june-2021](#).

As a result of this modelling, the Government has decided to:

3. establish four statutory, publicly-owned water services entities that own and operate three waters infrastructure on behalf of local authorities
4. establish independent, competency-based boards to govern
5. set a clear national policy direction for the three waters sector, including integration with any new spatial / resource management planning processes
6. establish an economic regulation regime
7. develop an industry transformation strategy.

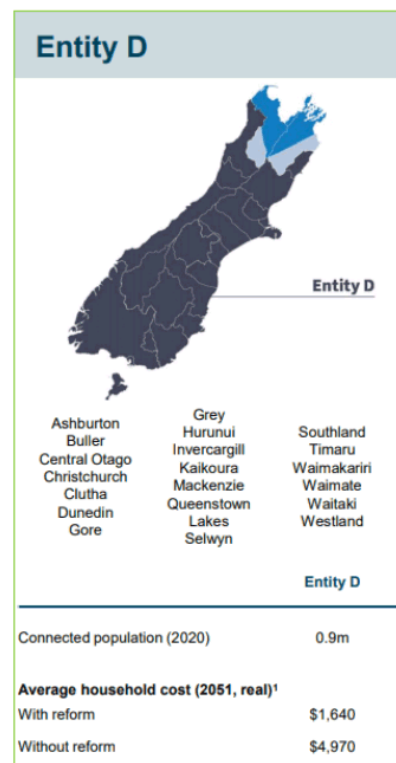
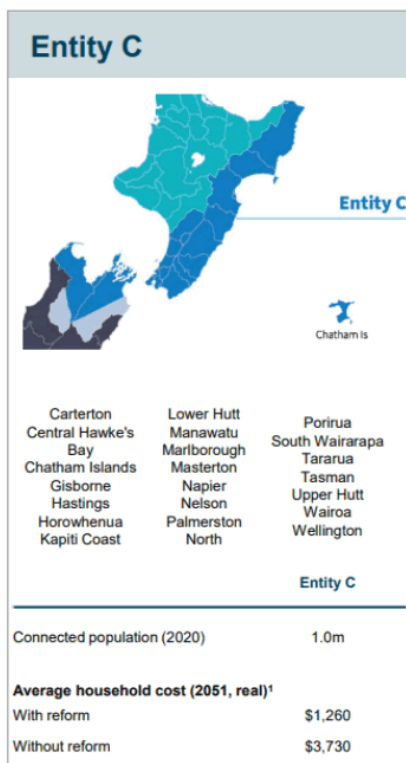
The proposed safeguards against privatisation can be found on page 26 of the DIA's [summary of the case for change](#).

8. Both DIA and LGNZ have produced two page national overviews, available on the DIA [website](#)⁴ and [LGNZ websites](#)⁵ respectively. Attachment 2 contains more detail on the national context and Attachments 3 and 4 provide the DIA/LGNZ overviews.
9. We have been placed in Water Services Entity D. Although the precise boundaries are still up for discussion, the approximate boundaries and the districts included within are shown below. For information, the other Entities are also shown below.



⁴ 2872-DIA-A3-A New Water with-without reform Map 20210526 v2.7

⁵ [Three-Waters-101-Infographic.pdf \(lgnz.co.nz\)](#)



On 15 July, in partnership with LGNZ under a Heads of Agreement,⁶ the Government announced a package of \$2.5 billion to support councils to transition to the new water entities and to invest in community wellbeing. This funding is made up of a 'better off' element (\$500 million will be available from 1 July 2022 with the investment funded \$1 billion from the Crown and \$1 billion from the new Water Services Entities) and 'no council worse off' element (available from July 2024 and funded by the Water Services Entities). The "better off" funding can be used to support the delivery of local wellbeing outcomes associated with climate change and resilience, housing and local place-making, and there is an expectation that councils will engage with iwi/Māori in determining how to use their funding allocation.

10. **SDC's better off funding allocation is \$19,212,526.**
11. **SDC's no worse off funding allocation approximately \$2,000,000 (each year for two years following the transition).**
12. It is important to note that Morrison Low's estimate of our no worse off funding allocation is closer to \$3,000,000, and as such may be considered an important topic to engage with DIA on.
13. The detail of the funding (including expectations around the use of reserves) and the full list of allocations can be found in Attachment 5. Conditions associated with the package of funding have yet to be worked through.
14. In addition to the funding announcements, the Government has committed to further discussions with local government and iwi/Māori over the next eight weeks on:
 - the boundaries of the Water Service Entities

⁶ [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/heads-of-agreement-partnering-commitment-to-support-three-waters-service-delivery-reform.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/heads-of-agreement-partnering-commitment-to-support-three-waters-service-delivery-reform.pdf)

- how local authorities can continue to have influence on service outcomes and other issues of importance to their communities (e.g. chlorine-free water)
 - ensuring there is appropriate integration between the needs, planning and priorities of local authorities and those of the Water Service Entities
 - how to strengthen the accountability of the Water Service Entities to the communities that they serve, for example through a water ombudsman.
15. The Government has indicated that this period until 30 September provides an opportunity for local government to provide and/or, seek feedback on any element of the reform proposal to this point.
16. Some stakeholders from around the country have taken the opportunity to provide feedback already. Some of the 'non-negotiables' communicated to the Minister by local government Zone 5 and 6 representatives are as follows:
- Councils and local communities are to retain local input into three waters service delivery
 - All communities to receive the same standard and level of service
 - Ensure there is no privatisation of three waters
 - Local contractors have the opportunity to continue to provide their services locally; and
 - Councils have an opportunity to be involved in developing the criteria for board positions.
17. Further, Ngāi Tahu have also identified a number of 'shared priorities' for communication to the Minister:
- Assets cannot be sold to the private sector and must remain in the hands of the communities for our generation and future generations.
 - Must give effect to Treaty principles and legislation and enable Ngāi Tahu to meaningfully participate in decision making.
 - All communities need to be able to be looked after within Entity D, including those whose councils may be aligned with Entity C and Chatham.
 - Our communities have differing needs. Where a district seeks to maintain a higher level of service, they can require it of Entity D, and fund it locally where required.
 - Communities across Entity D must have access to the infrastructure they need for sustainable growth, regardless of whether they are small or large.
 - The base of community knowledge and skills is retained and grown through social and local procurement.
 - Mechanisms must allow for representation across the region and accountability to communities. At least two jointly appointed direct to the Entity Board by Ngāi Tahu and Councils.
 - Direct representation comprising the capability and understanding of local needs at design, establishment and transition stages. We will continue to codesign together with DIA funding.
 - Consumer ombudsman (or other similar mechanism) at a takiwā level.
18. Given the above, in presenting this report, it is intended to generate context to provide and / or seek from the Government on the reform proposal as it stands in order to inform next steps.
19. As a result, the original timetable for implementing the reform and for councils to consult on a decision to opt-in (or not), no longer applies. Further advice on the difficulties and risks of making a decision to opt-in or not is included at '*Options analysis*' section of this report.

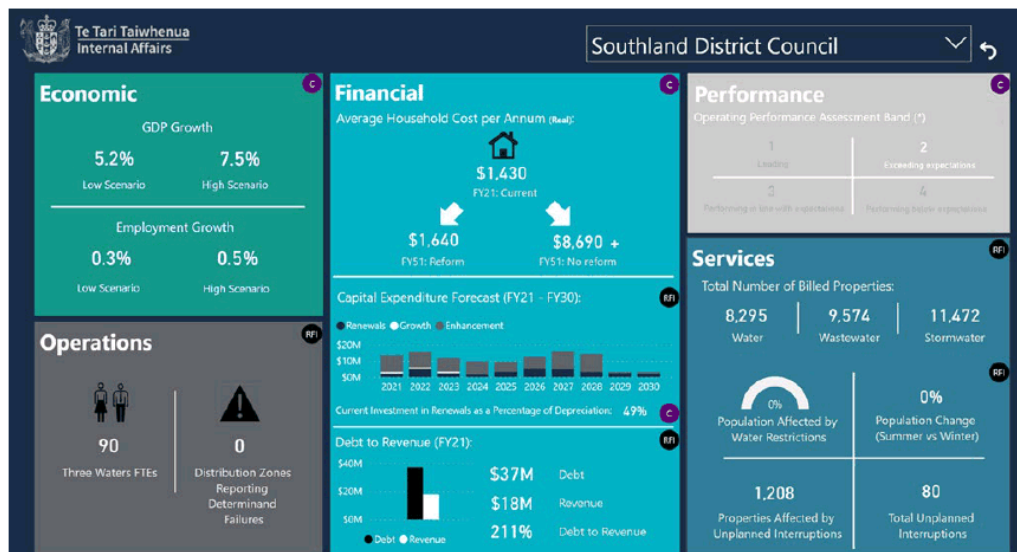
20. Next steps are expected to be announced after 31 September 2021, which would include the timeframes and responsibilities for any community or public consultation.
21. It is also important to note that the Government has not ruled out legislating for an “all-in” approach to reform to realise the national interest benefits of the reform.
22. In the interim the DIA continues to engage with council staff on transition matters on a no regrets basis should the reform proceed. These discussions do not pre-empt any decisions about whether to progress the reforms or whether any individual council will transition.
23. On the assumption that the reform goes ahead, it is anticipated that councils will continue to deliver water services until at least early 2024 and council involvement in transition will be required throughout.

Southland District Council specific information and analysis

Dashboard

1. While the Government and LGNZ consider that national case for change has been made, each council will ultimately need to make a decision based on its local context.
2. Councils do not have a national interest test for their decision making. Councils are required to act in the interests of their communities and the community’s wellbeing (now and into the future), provide opportunities for Māori to contribute to their decision-making processes, ensure prudent stewardship and the efficient and effective use of its resources in the interests of the district or region (including planning effectively for the future management of its assets) and take a sustainable development approach⁷.
3. We currently deliver three waters through our Services and Assets group that includes a Strategic Water and Waste team. Within this team are Asset Management, Engineering Services and Capital Delivery resources.

Our dashboard looks like this:



⁷ See for example sections 5 and 14 of the LGA.

4. This dashboard, and the dashboards of other councils, can be accessed on this site (in the footer below).⁸
5. The key aspects Council should note are detailed below.
6. Average cost of three waters per household:
 - the DIA (based on several assumptions) states it is currently \$1,430; our actual average based on the 2021/22 Plan is \$929.
 - projected out to 2031 (again based on assumptions) is \$8,032 (DIA – inflation stripped out) and our council (based on year 10 of the LTP 2021-31 and on projections by Morrison Low) is \$1,953 (inflation stripped out).
 - DIA's reform-based average household cost (Entity D) projects \$1,640 by 2051.

DIA Dashboard

Against the above information, in general the Dashboard and underlying information for the next 10 [30] years appears directionally accurate when compared with Council's own information and LTP 2021-31. Further detail is provided below. Council engaged Morrison Low via LGNZ to review the modelling completed by WICS for DIA, which informs Council's ("SDC") dashboard, and identified a number of key assumptions that have been applied by WICS as having a significant impact on the projected household charges under each scenario, specifically these are:

7. The assumptions used by WICS regarding the proportion of three waters revenue that is received from households, which has been assumed by WICS to be 70%, but which is 68% for Council.
8. The approach WICS has taken to determine the number of household connections, which has been to divide the connected population by 2.7. WICS assumes that there are only 4,278 household connections in SDC, compared to the 5,900 water connections disclosed in its completed RFI.
9. The level of investment that WICS has assumed is required over the next 30 years. WICS has assumed a ten-year investment requirement of \$350M, which is three times higher than Council's own estimates.
10. The approach used by WICS to estimate future revenue requirements. WICS determined future revenue requirements by reference to the amount of debt that SDC would need to borrow to fund its full investment programme. Revenue is determined based on the amount needed to maintain a three waters debt to revenue ratio of 250%. Council's debt capacity is not measured at an activity level, given the lower borrowing requirements of other activities, a ratio of at least 500% is likely more appropriate. This has had a significant impact on revenue required to access debt-levels needed to fund estimated investment values.
11. WICS have assumed that Entity D will be able to achieve operating and capital efficiencies totalling 53.3% and 50%, respectively, over a 20-year period (from today).
 - While prepared at the national level, it has been peer reviewed by Farrierswier and Beca to ensure that both the modelling and underlying assumptions are reasonable in the New Zealand context. It therefore provides a reasonable indication of the "order of magnitude"⁹ of the gains that can be delivered through the new system and the level of future investment Council is likely to need to make over the next 30 years.

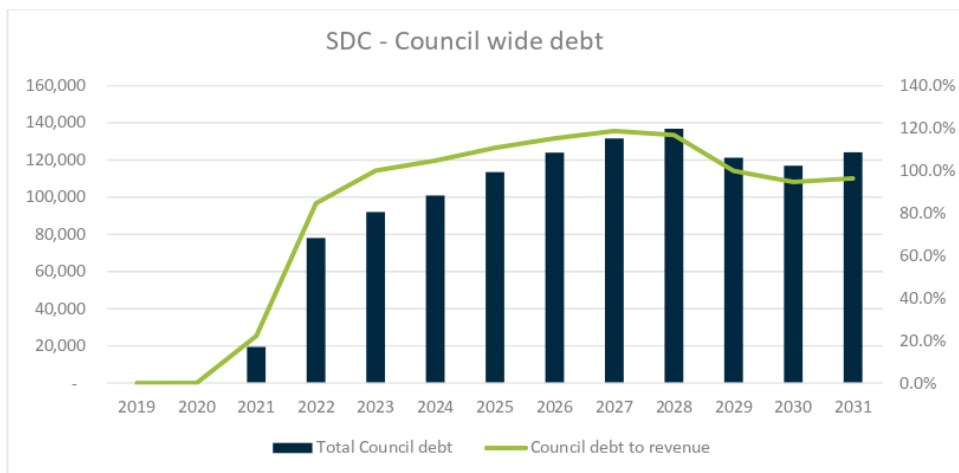
⁸ <https://app.powerbi.com/view?r=eyJrJoiOGE1OTJlYWUtZDZkNy00YWZjLTgzN2EtOTY1MzQxNGM5NzJmIiwidCI6ImY2NTIjYTVjLWZjNDctNGU5Ni1iMjRkLTE0YzYk1ZGYxM2FjYjU9>

⁹ Page iv, 2021, Farrierswier, Three Waters Reform, Review of methodology and assumptions underpinning economic analysis of aggregation available at [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/farrierswier-three-waters-reform-programme-review-of-wics-methodology-and-assumptions-underpinning-economic-analysis-of-aggregation-released-june-2021.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/farrierswier-three-waters-reform-programme-review-of-wics-methodology-and-assumptions-underpinning-economic-analysis-of-aggregation-released-june-2021.pdf)

12. At this stage it is not possible to fully test the projections as the standards for Aotearoa/New Zealand out to 2051 are not known, although it is reasonable to assume that there will be greater community and mana whenua expectations around environmental performance and quality, tougher standards to meet for water quality (drinking and receiving environment) and that monitoring, compliance and enforcement will be greater than it is now. This affects both operational and capital expenditure (costs will go up), including the number of staff (or contractors) that council will need to ensure Council outcomes for water and community and legal requirements are met.
13. There is always a level of uncertainty and therefore risk around assumptions and forecasts, whether prepared by us for our LTPs or by others (i.e. Government) to facilitate policy decisions, such as the current Three Waters Reform process. However, it should be noted that an assessment of the modelling has been undertaken by Morrison Low and is included in Appendix E in addition to informing the above context.
14. To assess whether the proposed better off and no worse funding to Council [\$19,212,526] is sufficient, Council needs further information on the conditions that will be associated with that funding. For the purposes of the following analysis, it is assumed that this funding would provide Council with an opportunity to address a range of issues and opportunities to improve community wellbeing in partnership with mana whenua and the communities Council serves.

Debt

The three waters debt in the dashboard for 2021 is \$37M. This is taken from the RFI information submitted by staff in early 2021. The Impact Analysis by Morrison Low forecast three waters debt at 2031 to be over \$78M and as the following debt profile shows, for Council debt to remain within the LGFA limits throughout the current LTP period.



If three waters debt in 2024 (the presumed year of transition) transferred to Entity D, Council's total borrowing would reduce from \$99 million to \$49 million, and its additional borrowing capacity would increase to \$170.6 million.

Capital Expenditure Forecast

1. The DIA are forecasting \$350,073,873 to 2031 and \$1,244,286,818 to 2051.
 - Of the 2051 figure, \$806,605,000 is forecast necessary for Level of Service enhancement and growth and \$435,681,818 for renewals. This is significantly higher than Council's own RFI forecasts.
2. Our own information demonstrates that there is moderate investment required over the next 10 years of our Long Term Plan and out across 30 years in our infrastructure strategy, underpinned by assumptions that regulatory standards will tighten and that there will be more monitoring and enforcement in the future.
 - Work undertaken by Morrison Low indicates that the total investment required to 2031 is \$105,769,000, of which \$72,993,000 is for LoS and growth and \$32,776,000 for Renewals. We note that Council's renewals investment is low in comparison with others as our infrastructure is relatively young.

Investment in level of service enhancement is the largest driver of infrastructure spend in SDC, and a significant component of this spend is to increase compliance with new regulatory standards.

Council's drinking water levels of compliance and levels of service are good for the Otago-Southland region, with over 56% of its total drinking water supplied receiving chemical treatment, and only 4% (or one treatment plant) receiving simple disinfection only. SDC's infrastructure also had the lowest rate of mains bursts per 10km, and the second lowest rate of unplanned water service interruptions per 1000 properties in the Otago-Southland region in 2020.

The only Water Treatment Plant in SDC that is likely to be non-compliant with the protozoal standards in the Drinking Water Standards treats smaller volumes of water and relates to one of the district's rural water schemes.

However, Council has the second lowest number of wastewater treatment plants providing tertiary treatment, with only 12% of the wastewater treated in Southland being subject to tertiary level treatment. In addition, 73% of the district's treated wastewater is currently discharged into a freshwater receiving environment.

The largest level of service investment planned currently is the potential upgrade of the Winton wastewater treatment plant. However, there are a number of planned consent renewals during this period, and in most cases discharging to land is unlikely to be a viable option, as the soil is typically unsuitable for this type of discharge. Because of this, the potential future investment requirements could be significant for the district.

If three waters service delivery remains with Council, then SDC will need to continue to fund the required level of service investment directly (as it is forecast to within its Long-Term Plan). This will require a sustained period of investment that will require water charges to double over 10 years. Cost increases like this will come with community pressure and if Council deviates from that path we will need to accept the additional risk associated with continued non-compliance.

Private suppliers

Under the draft Water Services Bill councils are considered to be the supplier of last resort for drinking water services provided within their territorial boundaries. This means that in the event that a private drinking water scheme fails or ceases to provide drinking water, Council may be responsible for ensuring continuity of supply to households serviced by that scheme.

The risk of this occurring is a significant concern, particularly given the increased enforcement of drinking water standards that has been proposed and the increased levels of personal liability associated with non-compliance.

In the event that three waters reform proceeds, it is understood that the Government would transfer the obligation to act as the supplier of last resort to the new water entities. It is not yet clear whether this would extend to giving the new entities the powers to forcibly takeover the management of schemes, or to act as the supplier of last resort in districts where councils have not opted into the reform process.

While the number of private schemes in SDC is unknown the proportion of population that is connected to a water supply scheme provides a proxy for the scale of the risk. SDC has the lowest percentage of connected population in Otago and Southland, at only 33%, and as a rural council can be expected to proportionally have a higher number of private suppliers.

Options available to Council for three waters service delivery

1. This Section provides an overview of the options available to Council and is followed by an analysis of the options (excluding the Do Nothing option, which is essentially discounted).

Option A - Government Proposal

2. Under this option, we are in Entity D, a publicly owned water services entity that owns and operates three waters infrastructure on behalf of councils, mana whenua and communities.
3. The ownership and governance model is a bespoke model, with councils listed in legislation as owners, without shareholdings or financial interests, but an advocacy role on behalf of their communities. Iwi/Māori rights and interests are also recognised and representatives of local government and mana whenua will sit on the Regional Representative Group, issue a Statement of Strategic and Performance Expectations and receive a Statement of Intent from the Water Services Entity. Entities must also consult on their strategic direction, investment plans and prices /charges.
4. The law currently prohibits Council deciding to opt-in to the current proposal (given section 130 of the LGA, which prevents councils from divesting their ownership or interest in a water service except to another local government organisation such as a Council Controlled Organisation) and what we know about this option at present.
5. A summary of benefits, risks and issues with the Entity approach was set out in the Morrison Low impacts report is listed below (and presented in detail in the section '*Council specific information and analysis*'):
 - Alignment of the entity with the Ngāi Tahu Takiwā provides a greater ability to embed Te Ao Māori within the governance of three waters services.
 - A larger entity covering all, or most, of the South Island will allow for a greater degree of consistency of levels of service between districts.
 - However, with a larger service area comes a greater need to prioritise where investment occurs first.
 - Would have an enhanced ability to send strong market signals and long term, significant capital works programs that would provide contractors with sufficient certainty of work that they are able to scale up appropriately.
 - This option addresses the very real risk that the scale of investment required to meet new standards and community expectations is greater than council's have forecast (evidenced from WICS estimate forecasting also).

Option B - Council as a standalone deliverer of three waters [enhanced Status quo]

6. This option represents a modified version of Council continuing to deliver services to reflect the anticipated regulatory environment for three waters delivery.
7. This option requires making assumptions about:
 - the future regulatory requirement (potentially using the assumptions underpinning the WICS modelling and the Government's proposal and draft/emerging standards and compliance regimes e.g. those coming from Taumata Arowai)
 - the ability of non-Council water supplies to meet standards and requirements and the subsequent risks to Council

This option would ideally include the production of business cases for investment and enhanced activity and asset management planning (above and beyond what is currently produced) to be robust.

8. Council staff have assessed our ability to do this work in the current operating environment (delivering business as usual, stimulus projects, other Government reform workloads, consultant availability etc) and concluded that only a very high level of analysis of this option could be done in the available timeframe. As such, as to whether Council and the local three waters sector has the capacity to deliver an enhanced status quo option is not yet well understood.
9. Whilst the Morrison Low forecasting suggests that SDC has the capacity to borrow sufficient funds to meet the required investment programme over the next 10-years, it is as yet unclear whether this remains the case beyond this point. Particularly considering the young age of our infrastructure, relative to other neighbouring territorial authorities. The WICS modelling assumes this to be an impediment for SDC.
10. A summary of benefits, risks and issues with the Council service delivery approach was set out in the Morrison Low impacts report attached at Appendix C.
11. Please note that any changes to levels of service or material changes to the cost of service would require consultation and an LTP amendment (or consultation on those changes as part of the next LTP 2024-34 and potentially later ones).

Option C - Otago Southland Region

A review has been undertaken by Morrison Low of an Otago Southland combined option. This is included in the "SDC Post Impacts Report", attached at Appendix C.

Otago Southland would include the territorial authorities with Otago and Southland, and most likely would need to be the result of a voluntary process that would take place outside of the current government driven reform.

Previous work indicates that that a regional three waters entity covering the Otago and Southland region will breach both the LGFA lending covenant, and the debt to revenue covenants that would likely be imposed by the credit agency Moody's if the agency was to seek a Baa/Ba credit rating. This means that a regional water entity would have to rely on Government subsidies or higher user charges to be able to afford the current investment programme.

The challenges for an Otago Southland regional water entity to be able to borrow sufficient funds to meet the required investment programme is considered a major impediment to the viability of an Otago Southland three waters entity.

A summary of benefits, risks and issues with the Otago Southland approach was set out in the Morrison Low impacts report and is listed below (and presented in detail in the section '*Council specific information and analysis*')

12. The development of a co-governance model will require Councils and Māori to participate in what may be a resource intensive process and this needs to be supported by external funding.
13. The relationship between water 'customers' and the service provider as an Otago Southland water entity would essentially become similar to an electricity company.
14. A regional water entity is able to provide improved asset management, improved management of risk and will be better placed to meet any increased compliance requirements or increased environmental standards than the Councils can individually.
15. Delivery of capital works will still be challenging with the regions needing to increase capital delivery by over 130% compared to the amount delivered in 2020.

16. Ability to form an Otago Southland entity is a significant risk (unless it emerges as the governments option) as Councils must opt out of reform, and then subsequently engage, commit, and fund a voluntary reform process without a suitable structure to do that.

By 2031 an Otago Southland three waters entity is forecast to have debt totalling \$1.9 billion, or 465% of its annual revenue.

Option D - Do-nothing

17. Doing nothing is not an option and is not considered further. In essence, 'Do Nothing' is Option B as this is the status quo along with the issues presented in this the Morrison Low reporting.

Options analysis

For simplicity, the table below presents the analysis of the Options undertaken by Morrison Low in the SDC Impacts report (full report included in Appendix C). Note this also includes an Otago Southland options that was considered previously and is retained for completeness.

	Council delivery model	Otago Southland (included for comparison only)	Entity D
Governance	<p>Governance of three waters generally</p> <p>Governance of three waters in Southland is provided by elected members through the Services and Assets committee and in the case of three rural schemes, through water supply committees.</p> <p>Embedding of Te Tiriti o Waitangi and Te Ao Māori</p> <p>Governance of three waters service delivery at Southland District Council currently does not involve any formal participation from Iwi or local Runanga.</p> <p>There is no legislative restriction to enabling this at a later date.</p> <p>Local representation</p> <p>Water services are currently provided through a model with elected council representative and elected community boards. Residents of Southland can approach Council about any issues regarding the levels of service that they receive.</p>	<p>Governance of three waters generally</p> <p>Governance of three waters would be provided by a skills and merit-based board of directors who have a sole focus on the delivery of three waters services and subject to different liabilities than Councilors.</p> <p>Embedding of Te Tiriti o Waitangi and Te Ao Māori</p> <p>The model provides the opportunity to deliver on treaty principles and co-governance with Māori from the outset within a new purposely built framework reflecting Te Mana o te Wai.</p> <p>The development of a co-governance model will require Councils and Māori to participate in what may be a resource intensive process and this needs to be supported by external funding.</p> <p>Local representation</p> <p>A potential loss of community influence over priorities and service levels by removing governance from the democratically elected Council into a board of professional directors.</p> <p>The relationship between water 'customers' and the service provider as an Otago Southland water entity would essentially become similar to an electricity company.</p>	<p>Governance of three waters generally</p> <p>Governance of three waters would be provided by a skills and merit based board of directors who have a sole focus on the delivery of three waters services.</p> <p>Embedding of Te Tiriti o Waitangi and Te Ao Māori</p> <p>Alignment of the entity with the Ngāi Tahu Takiwā provides a greater ability to embed Te Ao Māori within the governance of three waters services.</p> <p>The costs to develop a fit for purpose co-governance model are unlikely to be significantly higher with a larger entity.</p> <p>Local representation</p> <p>This issue will likely be magnified if the entity was responsible for the entire Ngāi Tahu Takiwā, as SDC would be a smaller part of a much larger entity.</p> <p>Again, if the entity was responsible for the entire Ngāi Tahu Takiwā this perception of a lost connection and of lost community assets would likely be greater.</p>

	Council delivery model	Otago Southland (included for comparison only)	Entity D
Compliance and Levels of service	<p>Regulatory compliance</p> <p>Southland DC's current levels of service are typically good; however, it may differ between townships and schemes.</p> <p>While SDC is currently generally compliant with wastewater consents, only 12% of its wastewater is subject to tertiary level treatment, and 73% is discharged to freshwater.</p> <p>Regulatory standards will increase in the near future, and in order to meet these standards in the future SDC will need to make significant investments in its three waters assets.</p> <p>Private schemes</p> <p>SDC is a predominantly rural council, and in our experience, these areas are likely to have a large number of private supplies.</p> <p>Council is currently the supplier of last resort under the Water Services Bill. This means that Council may be obligated to ensure continued water supply if schemes fail.</p> <p>Rural water schemes</p> <p>SDC has a number of rural water schemes that provide reticulated water (with varying levels of treatment) to rural properties with the additional purposes of irrigation and stock water.</p> <p>The incidence of private household connections to these schemes may or may not be known or approved by council and may currently present potential health and compliance risks.</p>	<p>Regulatory compliance</p> <p>A regional water entity is able to provide improved asset management, improved management of risk and will be better placed to meet any increased compliance requirements or increased environmental standards than the Councils can individually.</p> <p>It will allow for consistency between the levels of service provided to residents of neighbouring districts.</p> <p>An entity's financial, human, and contracting resources will still be limited and investment will need to be prioritised across its service area.</p> <p>Private schemes</p> <p>The transfer of responsibility for three waters services entity from Council reduces its future liability for and costs of addressing the private supplier risk.</p> <p>These risks remain but transfer to the entire region rather than being concentrated on just SDC.</p> <p>Rural water schemes</p> <p>There is limited guidance about whether the government is proposing to transfer ownership of rural schemes to new entities or not, however from a risk perspective we would suggest that councils seek to also transfer such schemes.</p> <p>A new water entity will need to understand the nuances of providing water to such schemes however, including differences in charging regimes and potential price differentiation.</p>	<p>Regulatory compliance</p> <p>A larger entity covering all, or most, of the South Island will allow for a greater degree of consistency of levels of service between districts.</p> <p>However, with a larger service area comes a greater need to prioritise where investment occurs first.</p> <p>Private schemes</p> <p>The transfer of responsibility for three waters services entity from Council reduces its future liability for and costs of addressing the private supplier risk. These risks transfer to the entire region rather than being concentrated on just SDC.</p> <p>Rural water schemes</p> <p>There would be no substantial difference in the treatment of rural water schemes between a Ngāi Tahu Takiwā sized entity, a South Island entity, or indeed an Otago-Southland entity.</p> <p>The incidence of rural water schemes in the rest of the South Island is high enough that the schemes will require a similar level of attention in any entity model.</p>

	Council delivery model	Otago Southland (included for comparison only)	Entity D
Infrastructure investment	<p>Scale</p> <p>We have projected that SDC will need to invest approximately \$151 million on three waters infrastructure over the next 10 years.</p> <p>Delivery of capital works</p> <p>Southland DC delivered 81% of its capital works program in 2020.¹⁰ The forecast capital expenditure over the next 10 years for Southland would require annual capital works delivery of a similar scale.</p> <p>Capital works delivery may be harder if SDC is competing with a large water entity for contractors.</p> <p>Renewals</p> <p>SDC plans to invest the lowest amount in the renewal of its network (when compared to annual depreciation) of all councils in the two regions. However, SDC's network is relatively young with many assets not yet at the end of their useful lives.</p> <p>Growth</p> <p>While SDC is not traditionally considered to be a growth council, some of its townships (e.g. Te Anau and Riverton) have, and are likely to continue to, experience significant growth.</p> <p>Council has control over the timing and location of its investment in growth infrastructure to attempt to facilitate or respond to growth when it occurs.</p>	<p>Scale</p> <p>Between \$2.3 – 4.7 billion needs to be invested in three waters infrastructure in Otago and Southland over the next 10 years.</p> <p>Delivery of capital works</p> <p>Will still be challenging with the regions needing to increase capital delivery by over 130% compared to the amount delivered in 2020.</p> <p>However, an entity may have an improved ability to coordinate a long-term sustainable program of works which may enable the contractor market to confidently scale up its resources and may reduce inter-district competition for contracting resource.</p> <p>Any improvement in capital works delivery under an entity model will take some time to transpire.</p> <p>Renewals</p> <p>Planned renewals investment across Otago and Southland is substantially lower than our estimates indicate it should be based on age alone.</p> <p>However, differing age profiles across the two regions mean that there may be opportunities to smooth the renewals programme better at a regional level.</p> <p>Growth</p>	<p>Scale</p> <p>Between \$8 – 9 billion needs to be invested in three waters infrastructure in the Ngāi Tahu Takiwā.</p> <p>Delivery of capital works</p> <p>Delivery is still likely to be challenging until such time as the labour market is able to respond.</p> <p>Would have an enhanced ability to send strong market signals and long term, significant capital works programs that would provide contractors with sufficient certainty of work that they are able to scale up appropriately.</p> <p>Any improvement in capital works delivery under an entity model will take some time to transpire</p> <p>Renewals</p> <p>Planned renewals investment across the Ngāi Tahu Takiwā is about equal to our estimates based on age, however there are shortfalls and surpluses at district level.</p> <p>A Ngāi Tahu Takiwā sized entity would have a large enough renewals budget to address the needs of each district.</p> <p>Growth</p> <p>The challenges of coordinating and managing competing growth and investment priorities across a larger number of councils may be increased.</p>

¹⁰ Note that delivery of the capital works programme in the 2020 financial year was impacted by Covid-19 restrictions

	Council delivery model	Otago Southland (included for comparison only)	Entity D
	District planning activities currently consider a range of factors to determine new areas for development, with infrastructure being only part of this equation.	SDC no longer has control over timing and location of investment in growth infrastructure. There will be a need to ensure that the foundation documents and governance structures retain an appropriate balance between the individual priorities of each council with regional priorities including planning and supporting growth. An entity may have different priorities or timeframes over growth investment in SDC. District planning will require interface with a three waters entity which may have different motivations when identifying new development areas.	However, the entity will also have increased capacity to be able to address these issues and challenges. An entity may have different priorities or timeframes over growth investment in SDC. District planning will require interface with a three waters entity which may have different motivations when identifying new development areas.
Financial assessment	<p>Debt and borrowing capacity</p> <p>SDC is forecast to have three waters debt exceeding \$78 million and total council debt exceeding \$138 million by 2031.</p> <p>SDC's additional borrowing capacity in 2024 (the estimated year of transition) would be \$168.9 million.</p> <p>Estimated household three waters charge</p> <p>SDC has an estimated household three waters charge in 2031 of \$1,953 (or a 209% increase).</p> <p>Water and wastewater charges would equate to approximately 2.4% of median household income in 2031.</p> <p>Financial resilience</p>	<p>Debt and borrowing capacity</p> <p>Without three waters debt in 2024 (the presumed year of transition) Council's total borrowing would reduce from \$99 million to \$49 million and its additional borrowing capacity would increase to \$170.6 million.</p> <p>A three waters entity for Otago and Southland would have over \$1.9 billion of total debt and a debt to revenue ratio of 465% (which exceeds the limits for a Baa/Ba credit rating). This would result in a credit downgrade leading to increased costs of borrowing and possibly the need to prioritise investment between districts.</p> <p>A voluntary Otago-Southland entity would still have a balance sheet that is consolidated with its constituent councils without legislative change.</p> <p>Estimated household three waters charge</p>	<p>Debt and borrowing capacity</p> <p>Initial high-level estimates indicate a three waters entity covering the Ngāi Tahu Takiwā would have debt between \$6 – 6.5 billion and would exceed the debt to revenue lending covenants that are required for a Baa/Ba credit rating.</p> <p>This would result in a credit downgrade leading to increased costs of borrowing. It will also likely require further prioritization of investment between districts.</p> <p>Estimated household three waters charge</p> <p>A three waters entity covering the Ngāi Tahu Takiwā would likely have an average three waters household charge between \$1,700 and \$1,900.</p> <p>Financial resilience</p>

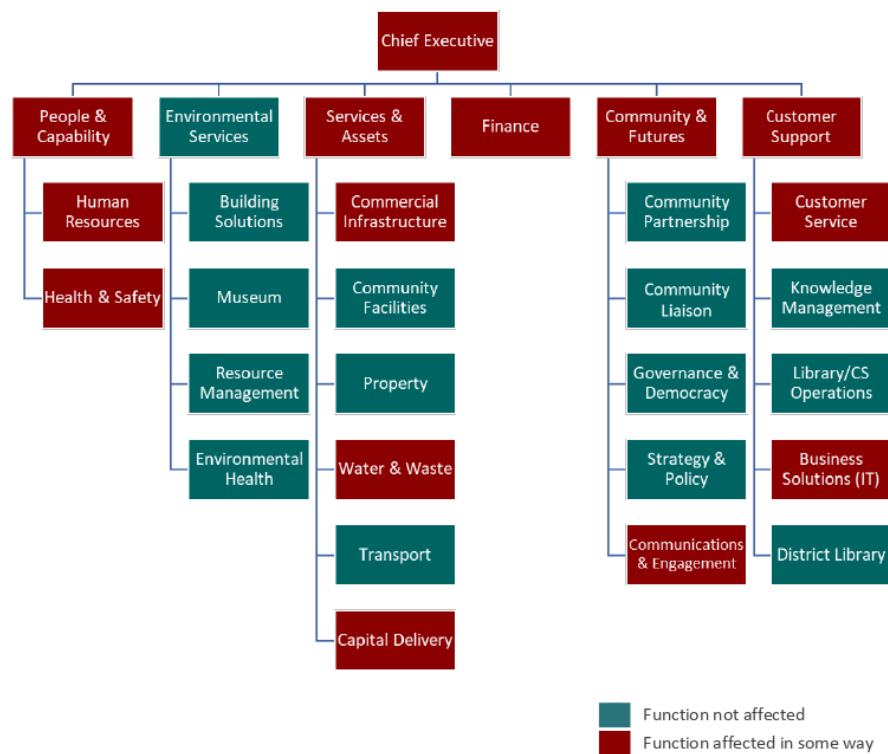
	Council delivery model	Otago Southland (included for comparison only)	Entity D
	The forecast investment required in three waters across in all Councils in Otago and Southland has grown significantly since the 2018 LTPs and with the increasing focus brought by three waters reform there is considerable risk that these costs will continue to change and increase further.	<p>A three waters entity would have an estimated three waters charge of \$2,001 in 2031.</p> <p>Water and wastewater charges would equate to approximately 2.4% of median household income in 2031.</p> <p>Financial resilience</p> <p>This option addresses the very real risk that the scale of investment required to meet new standards and community expectations is greater than forecast.</p> <p>A larger entity is better able to address the risk of future investment requirements being underestimated as it distributes costs over a larger customer base.</p>	<p>This option addresses the very real risk that the scale of investment required to meet new standards and community expectations is greater than forecast.</p> <p>A larger entity is better able to address the risk of future investment requirements being underestimated as it distributes costs over a larger customer base.</p>
Capability and capacity	<p>Southland District Council currently has 4 vacancies in its three waters group (30% of three waters roles).</p> <p>There is a shortage of specialist resources for three waters across New Zealand and internationally.</p> <p>As water reforms occur across New Zealand there is likely to be increased competition to attract and retain the specialist skills in water that are necessary to enhance delivery</p>	<p>13% of all three waters roles are currently vacant in the Otago and Southland regions.</p> <p>A three waters entity would have sufficient scale to create strategic capacity and capability across the region and support the areas where that is currently lacking.</p> <p>Scale, strategic capacity and capability gives a level of expertise and resilience in three waters that can be applied regionally, benefitting all ratepayers of the region rather than only some.</p> <p>Greater depth in planning and programming is also expected to help deliver the increased capital programme required to implement change in three waters.</p>	Increasing size and scale creates greater opportunities for staff and improves its capacity to train and develop expertise. Larger entities are also further insulated from ebbs and flows in the size of the workforce.
Risk	A number of the challenges highlighted with the current and emerging service delivery will be exacerbated.	There are a significant number of unknowns with the government proposal including:	There are a significant number of unknowns with the government proposal including:

	Council delivery model	Otago Southland (included for comparison only)	Entity D
	If SDC “opts out”, while other councils “opt in” to reform, SDC is likely to be competing with a large water entity for contractors and internal resources and capability.	<p>Entity design.</p> <p>Council’s roles as owner and governor.</p> <p>Mechanisms to prioritise local investment.</p> <p>Coordination of planning and investment.</p> <p>Interfaces with stormwater and the extent to which stormwater assets and functions will be transferred.</p> <p>Community input and role.</p> <p>Allocation of liabilities, land ownership.</p> <p>Without the critical mass of all councils there is a danger that the benefits of change will be substantially reduced or lost. That is particularly the case if the population centres of Dunedin, Invercargill and Queenstown were not involved.</p> <p>Ability to form an Otago Southland entity is a significant risk (unless it emerges as the governments option) as Councils must opt out of reform, and then subsequently engage, commit and fund a voluntary reform process without a suitable structure to do that.</p>	<p>Entity design.</p> <p>Council’s roles as owner and governor.</p> <p>Mechanisms to prioritise local investment.</p> <p>Coordination of planning and investment.</p> <p>Interfaces with stormwater and the extent to which stormwater assets and functions will be transferred.</p> <p>Community input and role.</p> <p>Allocation of liabilities, land ownership.</p> <p>A larger entity would be more resilient to some councils opting out of the process. However, the absence of the population centres of Christchurch and Dunedin would still create some challenges.</p> <p>In order to make an informed decision about the benefits or otherwise of opting into reform, it would be helpful to understand the likely position of each council, which will be more challenging with a larger proposed entity.</p>
Impact of transition	There would be no transition, however Council may lose resources to new water entities or transitional bodies in areas where councils have opted into the reform process.	<p>Uncertainty created by the potential change can and will affect existing staff. Attraction, recruitment and retention of key staff is a particular concern for the councils.</p> <p>As this option entails opting out of reform, it is likely that any transition costs (which are likely to be significant) will need to be met by councils.</p>	<p>The issues regarding transition do not differ for a larger water entity.</p> <p>Enforcement of standards during the transition period will need to be carefully managed by Taumata Arowai if council’s have a reduced workforce due to staff accepting roles with transition entities.</p> <p>It is anticipated that any costs of transition will be funded by the Government.</p>

Transition

18. There will be a transition process which may be challenging but is not considered to be a key driver for a decision.
19. That said, transition away from the status quo to any other option, carries inherent risks, with potential mitigations to reduce both impact and likelihood and therefore residual risk and sticking with the status quo may not be sustainable in the short, medium or long term.
20. A high-level overview of what we know of the transition process and risks is contained in Attachment 6.
21. With regard to transition, the chart below indicates potentially affected roles in the Council. Further detail on this is provided in the Impacts Assessment in Appendix C.

Figure 2 Roles potentially affected in Council



The following table covers a number of risks already identified and discussed in this report and its attachments. However, it seeks to consolidate these for the sake of ease.

NOTE: Risks to consider could include	
Staff/Contractor Retention	Current System Unable to Cope
Transfer of Contracted Services	Scope of Agency Service - continuing / picking up for e.g. stormwater [and / or wastewater]
Maintaining Good Quality Assets	Different Local Approaches - to regional neighbours may reduce the economies of scale making regional water solutions more expensive.
Stranded Overheads	Unreasonable Economic Influence - from existing industry players
Loss of Customer Experience	Asset Valuation - returning a much different value than expected affecting Council's financial position
Resistance to Change	Deferred Decision Making - development projects to stall.
Speed of change – an increase in mistakes	Community Uncertainty - owners continue to call Council delays in resolving faults.
Lack of Business Confidence	Existing Contract Liabilities - Council may be liable for compensation if contractors take legal action.
Transition Team – would help but will require resourcing. Staff workloads	Liability for Environmental Damage - Lack of clarity for monitoring environmental impacts may expose Council to liabilities
Limited Transfer of Water Debt – reserve funds collected for water related services affecting Council's financial position.	Loss of Asset Management Systems & Data - unclear responsibilities - loss of data or failure of systems affecting continuity of service delivery.
Development / Financial Contribution Refunds - may affect Council's charges linked to debt (including the possibility of refunds).	Impact on Bylaws
Poor Transition Management - cause delays and confusion over responsibility exposing Council to liabilities and affecting continuity of service delivery	

Council decision making and consultation

1. Part 6 of the LGA, sections 76 to 90, provide the requirements for decision making and consultation, including the principles of consultation and information that needs to be provided including the reasons for the proposal and the reasonably practicable options.
2. In particular, section 76 requires that in making a significant decision, which a decision on the future management and or ownership of three waters assets will be, councils must comply with the decision-making provisions. This is a 'higher bar' than the "promote compliance with" that applies for ordinary decisions.
3. Section 77 states that councils must seek to identify all reasonably practicable options and then assess the advantages and disadvantages of each option.
4. Section 78 requires that in the course of making a decision a Council must consider community views, but section 78(3) explicitly says that consideration of community views does not require consultation, which is reinforced by case law.
5. Section 79 gives Council discretion to decide how the above Part 6 requirements are met including the extent of analysis done etc. Therefore, while a decision could be challenged, a judicial review is unlikely to be successful unless the decision made by council was manifestly unreasonable, the process was flawed or the decision was beyond its powers (as given in law, i.e. the council did not act within the law).
6. However, despite section 79 of the LGA, a decision to transfer the ownership or control of a strategic asset from the council (or to it) must explicitly be provided for in the council's Long Term Plan (and have been consulted on specifically in its consultation document).
7. Council's existing LTP and the consultation information and process used to develop it will not suffice to meet this test, as Council did not itself have adequate information on the options and the implications earlier this year when it consulted on the LTP. An LTP amendment and commensurate consultation process on the ownership and governance arrangements and asset transfers proposed would be necessary.
8. There are also provisions in the LGA that relate to unlawful decisions to sell or dispose of assets, which can be investigated by the Auditor-General.¹¹
9. A decision to opt-out would also be affected by the consultation and decision-making requirements set out in this report, including the need to follow a robust process that could survive a judicial review, as well as make a final decision that was not manifestly unreasonable in the circumstances.
10. Given the Government's
 - 8 week period of engagement with mana whenua and councils
 - commitment to explore issues such as council and community influence of service outcomes, integration with other reform proposals, spatial and local planning
 - request for councils to give feedback on the proposal, identify issues and solutions
 - and uncertainty around next steps, including whether the reform may become mandatory or legislative change will remove legal barriers to opting in
 it would be premature to make a decision to opt out of the reform process and may expose the Council to litigation risk.
11. A Government Bill to progress the reforms could address the issues raised above, for example removing the section 130 requirements has explicitly been raised.

¹¹ See sections 43 to 47 of the LGA.

12. At this stage no decision is required on future delivery arrangements. Based on the analysis in this report, Council should wait until it has further information before consulting on and/or making a decision on the Government's proposal.
13. It is recommended that the Council therefore notes the options canvassed in this report, the high-level analysis of them and the information and decisions that are yet to be made.
14. If reform is not made mandatory, to ensure sufficient information is available to meet the moral and legal requirements of Council decision-making staff will further develop the analysis of options (based on further information from the Government, advice on next steps, and regional discussions) prior to Council decision making and consultation on future water services delivery. Whether this is ultimately required will be dependent on where the Government gets to with the reform process and the decisions it makes after 30 September 2021.

Information that the Council requires or potential solutions to outstanding issues that it would like to convey to Government and LGNZ

1. There are still several issues that need to be resolved, including:
 - the final boundaries
 - protections from privatisation
 - consultation with mana whenua and communities
 - how will community voice be heard and what influence will local authorities have (and what can the community realistically expect the council to influence particularly if it is not on the regional Representation Group)
 - representation from and on behalf of mana whenua
 - integration with other local government reform processes
 - integration with spatial and local planning processes and growth
 - prioritisation of investment
 - workforce and capability – we don't have enough of the right people now to deliver three waters and we need to retain our people through the transition
 - what will a Government Bill cover and whether the reform will be mandatory?
 - conditions associated with the Government's package of funding for local government
 - transition arrangements, including our own workforce challenges (without transition challenges on top) and due diligence for asset transfers etc.
2. Council is invited to discuss whether there are specific information needs, issues or solutions that the Council would like staff to convey to the DIA or LGNZ.

Conclusion

1. While there is uncertainty about the future steps in the Government's reform proposal, and current legislative impediments to it, the eight-week period that is currently underway gives Council the opportunity to understand the information it has received (and will continue to receive) from the RFI and modelling processes.

2. It also provides an opportunity for Council to understand its potential options, including the financial, workforce and sustainability impacts for Council and the wider economic, social and cultural implications of each option, using the guidance that has been issued. It also provides an opportunity to engage in discussions with other councils in its entity grouping, share information and ask questions and propose solutions to issues it sees to Government and LGNZ.
3. All of this information will be useful to inform future decision making by both council and Government and consultation and engagement with mana whenua and communities.

Decision making compliance statements

Significance

The future of water services delivery is a significant issue. This report however does not commit Council to a decision relating to that reform. Instead it provides initial analysis of the reform proposals for Council's information and highlights the uncertainties around information and next steps. As such it is considered that this report does not meet the threshold for significance under Council's significance and engagement policy.

Risks / Legal and Financial implications

Significant risks, legal responsibility and financial implications have been identified in analysing the reform proposals and completing an analysis of options over recent months. However, there is no decision required, other than to note those issues and to request further information from Government if Council wishes to, to reduce the risks and implications to Council and its communities

Te Tiriti/Treaty of Waitangi and involvement of Māori in decision making considerations

The issues covered in this paper are important for Māori. The Crown is currently leading the engagement with iwi/Māori, mana whenua. Council has also been engaging with local and regional mana whenua through the Otago and Southland collaboration since the proposed reforms were announced.

Engagement and Consultation

Council is not required to consult at this time as provided for in '*Council decision making and consultation*' section of this report. Further advice regarding any future consultation requirements will be provided after September 2021. In the interim Council has undertaken a programme of information-sharing with its community based on what it knows at various milestones throughout the discussion with central government.

Attachment 1 - 2020 Background (including Taumata Arowai information and Indicative Reform Programme)

In July 2020, the Government launched the Three Waters Reform Programme to reform local government three waters service delivery arrangements, with the following objectives:

- improve the safety, quality, and environmental performance of water services
- ensure all New Zealanders have access to affordable three waters services
- move the supply of three waters services to a more financially sustainable footing, and address the affordability and capability challenges that currently exist in the sector
- improve transparency about, and accountability for, the delivery and costs of three waters services
- improve the coordination of resources and unlock opportunities to consider New Zealand's water infrastructure needs at a larger scale and alongside wider infrastructure and development needs
- increase the resilience of three waters service provision to both short and long-term risks and events, particularly climate change and natural hazards
- provide mechanisms for enabling iwi/Māori rights and interests.

The 2020 indicative timetable for the full reform programme is provided below. It was always subject to change as the reforms progressed, future Government budget decisions and Councils were advised that any further tranches of funding would be at the discretion of the Government and may depend on progress against reform objectives.



Also in July 2020 the Government announced an initial funding package of \$761 million to provide a post COVID-19 stimulus to maintain and improve water three waters infrastructure, support a three-year programme of reform of local government water service delivery arrangements (reform programme), and support the establishment of Taumata Arowai, the new Waters Services Regulator.

Following initial reports (that used publicly available council information) from the Water Industry Commission for Scotland (WICS), between October 2020 and February 2021, (all) 67 councils participated in the Government's Request for Information (RFI) on council's three waters assets, including future investment requirements. In return they received what was known as Tranche 1 stimulus funding (under a MoU and funding agreements with Government) for operating or capital expenditure that supported the reform objectives, economic recovery through job creation and maintaining, increasing and/or accelerating investment in core water infrastructure delivery, renewals and maintenance.

In line with Government policy, Taumata Arowai became a new Crown entity in March 2021 and will become the dedicated water services regulator when the Water Services Bill passes, expected to be in the second half of 2021 (the Select Committee is due to report back on 11 August 2021). They will oversee and administer, and enforce a new, expanded and strengthened drinking-water regulatory system, to ensure all New Zealand communities have access to safe drinking water. They will also provide oversight of the regulation, management, and environmental performance of wastewater and storm-water networks, including promoting public understanding of that performance.

An overview of local authority obligations under the Bill is provided below. The Bill provides for a range of compliance and enforcement tools including compliance orders, enforceable undertakings, infringement offences, and criminal proceedings, which can be taken against council officers (but not elected officials).

Taumata Arowai will have the authority to prepare standards and rules that water suppliers (such as councils) must comply with. Their initial working drafts are available online¹² and are currently being updated. Consultation will occur later this year. Guidance to support the operational compliance rules is also being developed and will be available when the rules are consulted on.

It is anticipated that monitoring, compliance and enforcement of standards will increase substantially on the status quo with the passing of the Water Services Bill and as Taumata Arowai begins to operate. It is also likely that the drinking water standards and their coverage (including non-Council water suppliers) and environmental standards will become more rigorous over time. This creates risks for council in meeting future standards and mana whenua and community aspirations (such as greater investment required than currently planned, risk of enforcement action).

¹² www.taumataarowai.govt.nz/for-water-suppliers/

Water Services Bill obligations of local authorities

Table 2 from [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/transforming-the-system-for-delivering-three-waters-services-the-case-for-change-and-summary-of-proposals-30-june-2021.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/transforming-the-system-for-delivering-three-waters-services-the-case-for-change-and-summary-of-proposals-30-june-2021.pdf)

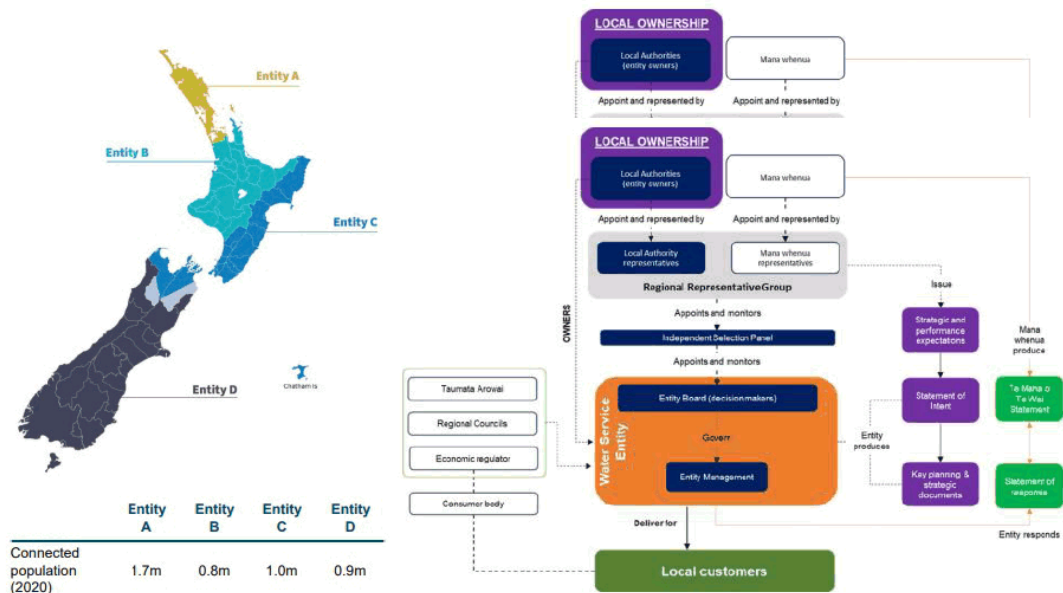
Local authorities as suppliers of water services	General obligations of local authorities
<ul style="list-style-type: none"> • Duty to provide safe drinking water and meet drinking water standards, and clear obligations to act when water is not safe or fails to meet standards • Key provisions include: <ul style="list-style-type: none"> ○ Suppliers need to register with Taumata Arowai ○ Local authority suppliers will need a drinking water safety plan and a source water risk management plan ○ Water suppliers must give effect to Te Mana o te Wai • Taumata Arowai will have significant compliance and enforcement powers, including powers to direct suppliers and enter into enforceable undertakings with suppliers • Officers, employees and agents of suppliers will have a duty to exercise professional due diligence • Complying with these new requirements is expected to require significant capital and operating expenditure by local authorities (including paying levies to Taumata Arowai for operation of the regulatory system) 	<ul style="list-style-type: none"> • Local authorities will have a duty to ensure communities have access to drinking water if existing suppliers face significant problems in complying with drinking water standards including: <ul style="list-style-type: none"> ○ Requirements to work with suppliers and consumers to identify solutions ○ Intervention responsibilities if a supplier is unable to meet standards, including potentially taking over management and operations of private or community supplies • In rural communities, this could represent a significant risk (contingent liability) for local authorities • Local authorities will be required to make assessments of drinking water, wastewater and sanitary services to ensure communities have access to safe drinking water • Local authorities will need to assess drinking water services available to communities at least once every three years, including private and community supplies (excluding domestic self-supplies)

Attachment 2 - the Government's conclusion that the case for change has been made

1. The modelling has indicated a likely range for future investment requirements at a national level in the order of \$120 billion to \$185 billion, an average household cost for most councils on a standalone basis to be between \$1910 and \$8690 by 2051.
2. It also estimated these average household costs could be reduced to between \$800 and \$1640 per household and efficiencies in the range of 45% over 15-30 years if the reform process went ahead.
3. The efficiencies noted are underpinned by evidence across a range of countries based on joined up networks (the conclusion is that 600,000 to 800,000 connections achieve scale and efficiency), greater borrowing capability and improved access to markets, procurement efficiencies, smarter asset management and strategic planning for investment, a more predictable pipeline and strengthened benchmarked performance, governance and workforce capabilities.
4. The briefing to the Minister notes that this "investment is what WICS has estimated is necessary for New Zealand to meet current United Kingdom levels of compliance with EU standards over the next 30 years, which in its assessment (and confirmed by Beca) are broadly comparable with equivalent New Zealand standards."
5. However, this is caveated as a conservative estimate that does not take into account iwi goals and aspirations, higher environmental standards or performance standards that are anticipated in future legislation, uncertainties in asset lives, seismic and resilience risk, supply chain issues, and the current workload to manage and deliver improvements as well as address renewal backlogs.
6. For councils with non-council drinking water suppliers in their areas there is additional risk if they are unable to consistently provide safe drinking water to their consumers, including the potential for council to have to take on the water supply. Council operating on expired consents or with consent renewals in the next 15 years also face uncertainty over the standards they will need to meet in the future and therefore the level of investment that needs to occur.
7. Councils could also add to the above list of uncertainties and challenges their business as usual workload, the workload associated with delivering on stimulus packages and associated with responding to other government reform initiatives such as reform of the Resource Management Act, and general workforce retention and attraction issues, which are exacerbated by public sector competition for talent and skills.
8. The modelling indicated that between one and four water services entities would provide the most efficiencies and reduce costs to individual households.
9. When this is added to:
 - known variations across the nation in water suppliers' compliance with drinking standards, including permanent and temporary boil water notices
 - evidence of poor health and environmental outcomes, including expired resource consents for wastewater treatment plants (and the need for 110 of these plants to go through the resource consenting process in the next 10 years)
 - stormwater overflows and other challenges
 - climate change
 - Te Tiriti obligations and the need to uphold Te Mana o te Wai
 - the size and scale of current service delivery units and workforce issues

- the obligations and responsibilities that councils (and other water suppliers) will face when the Water Services Bill and associated regulations are enacted the Government has concluded that the status quo is not sustainable and that the case for change has been made.

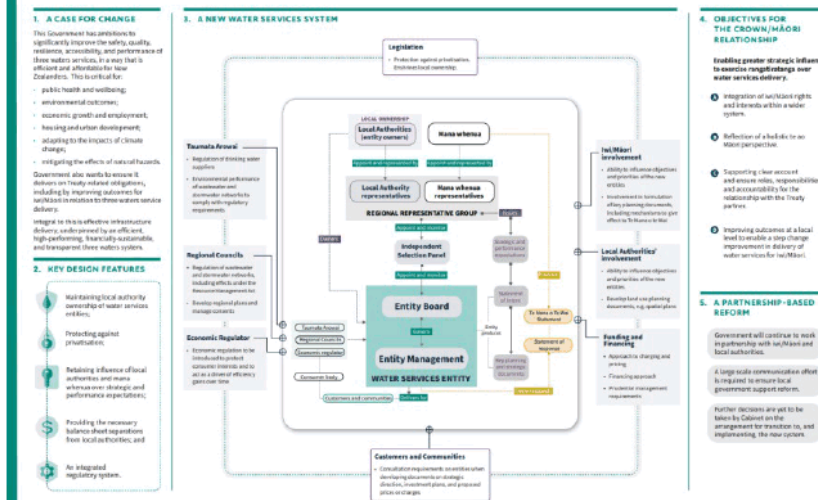
10. The four entities and their proposed boundaries (which may yet change) and the proposed structure for the system are as follows:



Attachment 3 - DIA two-page summary

A new system for three waters service delivery

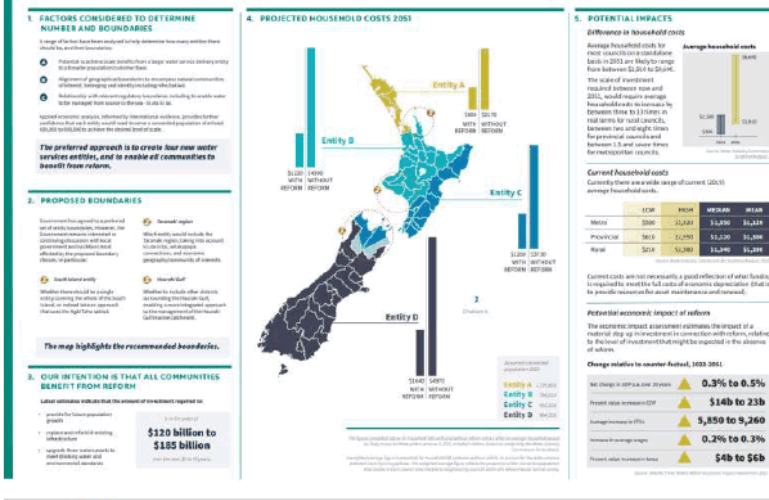
DIAGRAM 1
JUNE 2021



A new system for three waters service delivery

The number and boundary of entities needs to balance scale with other factors

DIAGRAM 2
JUNE 2021



Attachment 4 - LGNZ two-page summary

THREE WATERS 101.

The Government is proposing major reform of New Zealand's drinking water, wastewater and stormwater system. Here LGNZ synthesises the issues, the opportunities and what it means for local government.

1. What's the problem?

Councils currently own and operate three waters services, which cover drinking water, wastewater and stormwater. More investment is needed in water infrastructure to meet the environmental and public health aspirations of our communities. The Government has estimated that dealing with 30 years of systemic failure will require an investment of more than \$900 over the next 30 years.

This scale of investment would be extremely challenging for councils to fund on their own. Climate change will only exacerbate this challenge.

- Significant investment needed in water infrastructure
- Councils can't carry future costs

The current system lacks:

- Economic regulation
- Consistent cost allocation
- Enforcement of standards

2. Government's proposed solution

The Government has told us it wants to deliver water services more cost effectively. It also wants to deliver them in an equitable and sustainable way. It proposes changing the whole system:

- A new water regulator called Taumata Arowai
- A smaller number of large, specialist water service entities
- Water services are delivered on a significantly larger scale
- Water entities remain publicly owned
- Water services providers meet standards or face significant penalties for noncompliance
- Entities have strong strategic links to councils and mana whenua

3. Impact on councils

The Government's proposal would mean significant changes to the delivery of water services. For a start, councils would shift their focus from delivery to kaitiakitanga of water services. Requirements on local authorities to ensure safe drinking water for private and community supplies would transfer to new entities.

For most councils, removing water-related debt from their balance sheets would improve their financial position. It would potentially create more opportunity to focus on delivering wellbeing to their communities.

- Three waters kaitiakitanga focus
- Water-related debt removed from balance sheet
- Increased capacity to borrow to fund community services

We know there's not universal agreement on the case for change. But to meet councils' own RFI projections, spending across New Zealand as a whole would need to increase by 50 percent annually for the next 10 years. With strong regulatory enforcement, the picture would be very different for councils, creating difficult trade offs if large investments are required to meet water standards.

LOCAL GOVERNMENT CAN HELP SHAPE THREE WATERS REFORM.

We are. LGNZ.
Te Kaiti Kaunihara o Aotearoa.

What's important to the sector in this reform?

- Everyone has access to safe drinking water and the same level of three waters service.
- Infrastructure and systems are resilient and well-funded.
- Three waters are delivered in partnership with iwi.
- Delivery is responsive to climate change.
- Catchments are managed from the mountain to the sea.
- Districts retain high-paying, skilled jobs.
- Any transition is well-managed and people are looked after.
- Local voices are heard and local priorities are responded to.

What the sector needs from central government

- Transparency about the process and what's on the table.
- A robust transition plan that makes sure the benefits of reform are delivered.
- Government to support councils so they can keep delivering. This means making sure councils are economically sustainable without water.
- A fair deal, including that councils are not financially worse off, and that communities are better off.
- To support and grow effective local democracy.
- That any new system reflects the relationship with mana whenua under Te Tiriti o Waitangi

LGNZ is working for councils

Our work on Three Waters is guided by the principle that we need to seize any opportunity to create the best possible outcome for local government.

We're using our influence to work with the Government on a model that better includes the perspective of our communities. Representatives from local government are helping to steer this work and pose the hard questions. We are also actively working with government on what a package to go with reform might look like. We'll work to optimise this package before decisions are made.


Find out more

We encourage you to stay informed and up to date of the reform as they evolve. We'll be with you every step of the way. Here's where you can start:

Read what DfR has published: www.dfr.govt.nz/three-waters-reform

Check out the info on our website: www.lgnz.co.nz

Get in touch if you have questions: feedback@lgnz.co.nz



Attachment 5 - funding to invest in the future of local government and community wellbeing

1. On 15 July, in partnership with LGNZ under a Heads of Agreement¹³, the Government announced a package of \$2.5 billion to support councils to transition to the new water entities and to invest in community wellbeing.
2. The 'better off' element: an investment of \$2 billion into the future for local government and community wellbeing.
 - The investment is funded \$1 billion from the Crown and \$1 billion from the new Water Services Entities. \$500 million will be available from 1 July 2022. The funding has been allocated to territorial authorities (which includes unitary authorities)¹⁴ on the basis of a national formula that takes into account population, relative deprivation and land area.
 - The funding can be used to support the delivery of local wellbeing outcomes associated with climate change and resilience, housing and local placemaking, and there is an expectation that councils will engage with iwi/Māori in determining how to use their funding allocation.
3. The 'no council worse off' element: an allocation of up to around \$500 million to ensure that no local authority is in a materially worse position financially to continue to provide services to its community as a direct result of the reform.
 - This element is intended to ensure the financial sustainability of councils and address reasonable costs and financial impacts associated with the transfer of assets, liabilities and revenues to new water services entities.
 - Up to \$250 million is available to meet the unavoidable costs of stranded overheads and the remainder for other adverse impacts on financial sustainability of territorial authorities (including future borrowing capacity).
 - Of this \$250 up to \$50 million is allocated to Auckland, Christchurch and Wellington Water councils, the remainder is available to other councils.¹⁵ This funding is not available until July 2024 and is funded by the Water Services Entities.
4. Council's funding allocation is \$19,212,526.
5. The package is in addition to the \$296 million announced in Budget 2021 to assist with the costs of transitioning to the new three waters arrangements. The Government will "meet the reasonable costs associated with the transfer of assets, liabilities and revenue to new water services entities, including staff involvement in working with the establishment entities and transition unit, and provision for reasonable legal, accounting and audit costs."¹⁶
6. The Government is also encouraging councils to use accumulated cash reserves associated with water infrastructure for this purpose. There are likely to be practical limitations on a council's ability to do this set by councils' own financial strategy and policies (including conditions on the use of the reserves i.e. targeted reserve funds must be used for the purpose they were collected for in the first instance e.g. if collected for capital works).

¹³ [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/heads-of-agreement-partnering-commitment-to-support-three-waters-service-delivery-reform.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/heads-of-agreement-partnering-commitment-to-support-three-waters-service-delivery-reform.pdf)

¹⁴ Please note that any allocation to Greater Wellington Regional Council (the only regional council affected by the proposed changes) is not clear at this stage.

¹⁵ Due to their size and in the case of Wellington Water and Auckland's WaterCare having already transferred water service responsibilities (to varying degrees).

¹⁶ 15 July 2021 FAQ [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/three-waters-reform-programme-support-package-information-and-frequently-asked-questions.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/three-waters-reform-programme-support-package-information-and-frequently-asked-questions.pdf)

7. There are also political and / or community acceptance challenges with this approach - if the assets are transferred under a voluntary or mandatory process the reserve balances are expected to be used to invest those funds in the communities that paid for them, consistent with the conditions under which they were raised rather than pooling as a general fund. Councils and communities are unlikely to embrace using these funds instead to enable the transition.
8. The proposed national allocations are as follows:

Council	Allocation
Auckland	\$ 508,567,550
Ashburton	\$ 16,759,091
Buller	\$ 14,009,497
Carterton	\$ 6,797,415
Central Hawke's Bay	\$ 11,339,488
Central Otago	\$ 12,835,059
Chatham Islands	\$ 8,821,612
Christchurch	\$ 122,422,394
Clutha	\$ 13,091,148
Dunedin	\$ 46,171,585
Far North	\$ 35,175,304
Gisborne	\$ 28,829,538
Gore	\$ 9,153,141
Grey	\$ 11,939,228
Hamilton	\$ 58,605,366
Hastings	\$ 34,885,508
Hauraki	\$ 15,124,992
Horowhenua	\$ 19,945,132
Hurunui	\$ 10,682,254
Invercargill	\$ 23,112,322
Kaikoura	\$ 6,210,668
Kaipara	\$ 16,141,395
Kapiti Coast	\$ 21,051,824
Kawerau	\$ 17,270,505
Lower Hutt	\$ 38,718,543
Mackenzie	\$ 6,195,404
Manawatu	\$ 15,054,610
Marlborough	\$ 23,038,482
Masterton	\$ 15,528,465
Matamata-Piako	\$ 17,271,819
Napier	\$ 25,823,785
Nelson	\$ 20,715,034
New Plymouth	\$ 31,586,541
Opotiki	\$ 18,715,493
Otorohanga	\$ 10,647,671
Palmerston North	\$ 32,630,589
Porirua	\$ 25,048,405
Queenstown Lakes	\$ 16,125,708
Rangitikei	\$ 13,317,834
Rotorua Lakes	\$ 32,193,519
Ruapehu	\$ 16,463,190

Selwyn	\$ 22,353,728
South Taranaki	\$ 18,196,605
South Waikato	\$ 18,564,602
South Wairarapa	\$ 7,501,228
Southland	\$ 19,212,526
Stratford	\$ 10,269,524
Taranua	\$ 15,185,454
Tasman	\$ 22,542,967
Taupo	\$ 19,736,070
Tauranga	\$ 48,405,014
Thames-Coromandel	\$ 16,196,086
Timaru	\$ 19,899,379
Upper Hutt	\$ 18,054,621
Waikato	\$ 31,531,126
Waimakariri	\$ 22,178,799
Waimate	\$ 9,680,575
Waipa	\$ 20,975,278
Wairoa	\$ 18,624,910
Waitaki	\$ 14,837,062
Waitomo	\$ 14,181,798
Wellington	\$ 66,820,722
Western Bay of Plenty	\$ 21,377,135
Westland	\$ 11,150,183
Whakatane	\$ 22,657,555
Whanganui	\$ 23,921,616
Whangarei	\$ 37,928,327
Total	\$ 2,000,000,000

Attachment 6 - Transition

1. Consideration is being given to establishing a national transition unit and local establishment entities mirroring the boundaries of the (proposed) Water Services Entities and supporting, through a reprioritisation of stimulus funding if required, council staff costs related to reform and transition, enabling staff to participate in transition priority working groups, gathering and sharing data.
2. Current considerations, in addition to funding for backfilling and / preparing for change, are:
 - support for three waters workers – including:
 - if a staff members role is primarily three waters related, an automatic transfer to the new Water Services Entity in a similar role on the same salary at the same location with the same conditions
 - advice, including Employee Assistance Programmes, legal and union representation
 - the need to increase staffing levels to implement the transition, continue business as usual and deliver current and increased infrastructure investment
 - staff and contractor retention in a time of uncertainty (and competition for resources)
 - the speed of change and the risk of mistakes and service interruptions
 - stranded overheads and the no worse off element of the funding package
 - asset transfers and valuations
 - existing contracts and contractors and any residual liabilities
 - development and financial contributions
3. What isn't clear (but will be worked through) is:
 - where the bulk of managerial and support staff (e.g. communications, financial, asset management) will be located, although the presumption is that they will be (at least notionally in post COVID flexible working world) located in the regional headquarters of the Water Services Entities
 - what the principles and any threshold would be for a staff member that does some three waters related work (say 50% of their time) and whether it would be their choice to move to the Water Services Entity and the implications for their employment situation
 - if all three water services are included and will transfer at the same time

Appendix A - Regional situation analysis



Regional situation analysis

Otago-Southland three waters office

February 2021



Document status

Job #	Version	Approving Director	Date
2578	1	D. Bonifant	22/2/2021

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Executive summary

This regional situation analysis was carried out based on analysis of the eight territorial authorities' responses to a recent Request for Information (RFIs) by the Department of Internal Affairs, asset registers and infrastructure strategies.

The report provides commentary of the aggregated situation across the combined Otago and Southland regions. It is the first report prepared by Morrison Low as part of the Otago Southland Three Waters Review. Even in this initial high level review there are some consistent themes emerging around:

- Scale of the three waters challenge
 - The future investment required to meet the changing regulatory requirement means the ten year Capital Investment Programme for three waters has more than doubled from that within the 2018 LTP.
 - The combined 2018 LTP programmes were \$1.2 billion
 - The combined 2021 LTP programmes are now \$2.3 billion
 - Morrison Low's estimate of the required investment programme over the same timeframe is \$2.7 billion
 - We note that the 'unconstrained' ten year programme from the RFI was \$4.6 billion
 - The RFIs identify a combined ten year renewal programme of \$1.1 billion. However, our estimate of the renewal requirement over that period is \$1.5 billion meaning that the existing forecasts are, in our view, understated
 - Funding this level of investment would push the collective three waters debt from its current position of 215% to over 400% of three waters' revenue by 2031. That far exceeds the Local Government Funding Agency limits of 280%.
 - The future renewal requirement is not a 'bow wave' as has previously been described. It is sustained over at least the next 20 years. We estimate the projected renewal requirements for years 10 - 20 at \$950 million.
 - The combined population of Otago and Southland is less than that of Christchurch and it is spread over a vast area. Previous work by Morrison Low as well as analysis by the Water Industry Commission for Scotland has demonstrated the correlation between impact of future investment requirements and population density. Put simply, rural areas can be expected to cost more, on a per ratepayer basis, than denser more urban areas.
 - Our initial analysis of the potential future costs of three waters services ('average charge') across the region is that it is estimated to more than double over the next ten years from \$1,300 to an estimate of almost \$3,000 (uninflated). However, this figure is likely to change and increase, as further analysis is undertaken including changes in operating costs which have a direct impact on the cost of services. Also, under the current approach this impact will not fall equally across the region as each council will be different and some will be significantly higher than that.
- Risks associated with three waters services, assets and the current approach
 - The data available around three waters is starting to show that New Zealand, including Otago Southland, has historically under invested in three waters. While forecasts for future investment are projected to change that, the speed with which new investment requirements are changing is itself a risk.



- While it is unlikely that the unconstrained view presents a realistic picture of the required investment, the fact that it exists and is double the LTP forecasts indicates the risk that the investment required is greater than currently projected by the Councils.
- Increasing service levels and compliance requirements are driving investment into systems, processes, resources and infrastructure. Our initial view is that it is unlikely that all councils in the regions have sufficiently allowed for the increased operating costs that these will create. The risk is that the cost increases currently projected by the Councils will be greater than forecast.
- There are compliance risks in the current system. Thirty five percent (35%) of the regions drinking water (by volume) does not meet protozoa requirements of the Drinking Water Standards. These need to be addressed.
- 17% of the resource consents for wastewater treatment in the region have already expired, and a further 12% are due to expire within the next 5 years, this creates a legal, regulatory and financial risk for the region.
- Eighty two percent (82%) of the three waters pipe network across Otago and Southland is in an unknown condition. This is a significant portion of the network and as a result there must therefore be uncertainty about the future investment requirements and risks that these could be greater than estimated.
- There is a risk that under a status quo approach the future cost of three waters services that comply with the increased standards could be unaffordable in some communities.
- There is a risk around deliverability of the increased infrastructure programmes. The Otago and Southland Councils, like most New Zealand councils, have generally struggled to deliver their capital programmes each year. Yet, the forecast investment required in three waters for the eight councils will more than double from \$101M in 2020 to an average of \$230M per annum each year over the next ten years. There is a real risk that this is not able to be achieved.



Introduction

This report forms part of a suite of reports commissioned by the Otago Southland Three Waters Office to explore the impacts of the Government's proposed reform of three waters service delivery.

This report provides a high-level summary of the current three waters service delivery arrangements for councils in the combined Otago and Southland regions (the region). It highlights the size and scale, cost, balance sheet and investment, and service delivery challenges facing the region but does not seek to highlight the performance of any individual councils within the region.

It is intended that this report will provide local government decision makers with some of the core information that will be needed to understand what a three waters service delivery looks like at the Otago and Southland level. This report is predominantly a simple aggregate of the region's information and does not consider whether there are opportunities for efficiencies or the impact of any such efficiencies on regional investment requirements. Further reports providing that analysis will follow

In addition, we note that:

- This report presents high level analysis based on data included in RFIs submitted to the Department of Internal Affairs (DIA). Due to time constraints this means that while some clarification has been sought where information appears to be obviously wrong, the reliability of this data may differ between councils. For instance, we have not made any adjustment to information that was assigned a low confidence grade in the RFI.
- All analysis and discussion is at the Otago and Southland combined region level. Future reports will consider the information and issues at the individual council level.
- This analysis is subject to detailed modelling (including consideration of potential operational and investment related efficiencies).



Findings

This report has been structured to follow a logical progression that highlights the key challenges and opportunities facing the region. Analysis has been specifically focussed on matters which are able to clearly demonstrate the risks, issues and challenges for the region and can be easily understood without the need for comparison to individual council performance.

In particular the report addresses the following:

- The size and scale of the region, which is relevant when considering the potential for efficiencies from scale and scope.
- The future investment needs, which is relevant as a significant driver of future cost within the region.
- The financial position of the region, which provides additional information about potential future affordability issues facing the region.
- The ability of the region to deliver its capital works programme.
- The current levels of service provided across the region, which is relevant as a driver of future cost and exposure to operational risk.
- The current state of assets in the region which highlights some of the potential risks with the information set that has been used, and the age and condition of the regions' assets.

Size and scale

One of the main arguments for reform of three waters service delivery in New Zealand is that councils do not individually have sufficient scale and capacity to be able to sustainably address the challenges that are facing the sector. Through various studies into international best practice, DIA has indicated that, in its view, aggregation of water services delivery is needed to address these issues.

Understanding the size and scale of the region is critical in understanding whether the region would achieve the objectives of service delivery reform on its own.

Relative size of the combined regions

The region accounts for almost a quarter of New Zealand's total land mass yet accounts for only 7% of its population. While a significant portion of this land mass is in National Parks and is therefore not likely to ever be supplied with drinking water or wastewater, the low relative population density creates significant challenges for water service delivery in the regions.

The region has 70 water treatment plants and 68 wastewater treatment plants. There is 8,719 km of water pipe network, and 2,886 km of wastewater pipe network. The size of the network and number of plants in and of itself creates challenges.



	Otago-Southland	Christchurch	New Zealand	Otago-Southland % of NZ
Population¹	324,405	369,006	4,699,755	7%
Geographic size (Km²)	66,601	1,415	268,021	25%
Population per square kilometre	4.8	260.8	17.5	

In their report² commissioned by DIA the Water Industry Commission for Scotland (WICS), noted that in Great Britain, there is a strong correlation between future investment requirements and urbanisation/population density. The same trend has been observed by Morrison Low in prior three waters studies in New Zealand. More rural areas are typically expected to cost more, on a per head basis, than denser, more urban areas.

**Population is
less than
Christchurch**

The region would have a customer/ratepayer bases that is approximately 10% smaller than Christchurch City yet would service a geographic area that is over 45 times larger. Of that population, 39% is in Dunedin and 51% in Dunedin and Queenstown.

This difference in size and scale is likely to be reflected, over time, through increasing costs on water customers within the Otago-Southland region.

Connection density

Connection density can be an important driver of cost on a per head basis.

Councils with a lower number of connections per kilometre of pipe are likely to face increased costs per connection, particularly when it comes to the renewal and depreciation of those assets.

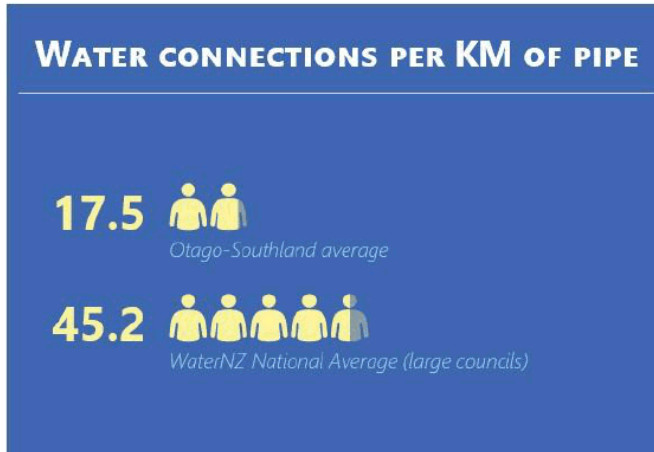
**Low
connection
density**

¹ 2018 Census

² Water industry Commission for Scotland, *Economic Analysis of water services aggregation* ([https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/Economic-analysis-of-water-services-aggregation-Stage-One-Report.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/Economic-analysis-of-water-services-aggregation-Stage-One-Report.pdf))

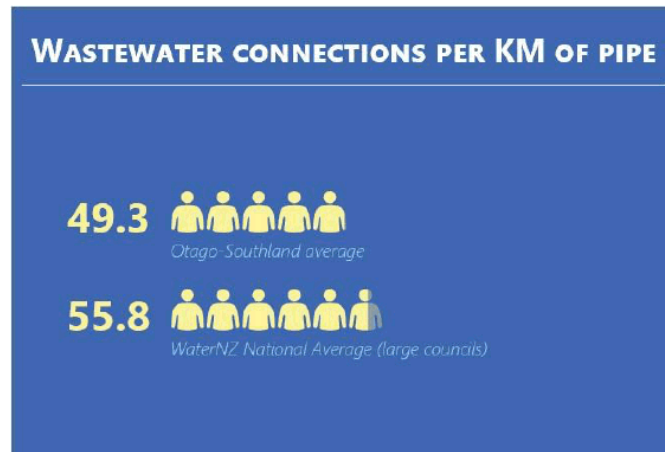


The region would have substantially less connections per kilometre of pipe than the average large council in the Water New Zealand National Performance review. In fact connection density would also be lower than the average of small councils within that study who have an average connection density of 22.69 connections per kilometre. There is also significant variation in connection density, with two councils having less than ten water connections per kilometre of pipe.



Wastewater similarly has less connections per kilometre of pipe than the average for large councils in the Water NZ National Performance Review, however connection density is much higher than it is for drinking water, and there is significantly less variation in connection density across the region.

While there are a similar number of total connections to water and wastewater in the regions (141,000 vs 134,000) reticulated wastewater services are typically less likely to be provided to rural communities, and this is represented in the increased connection density. Based on comparing this data it appears that the region has approximately 6,000 kilometres of water pipes servicing around 7,000 people at a connection density approaching 1 connection per kilometre.



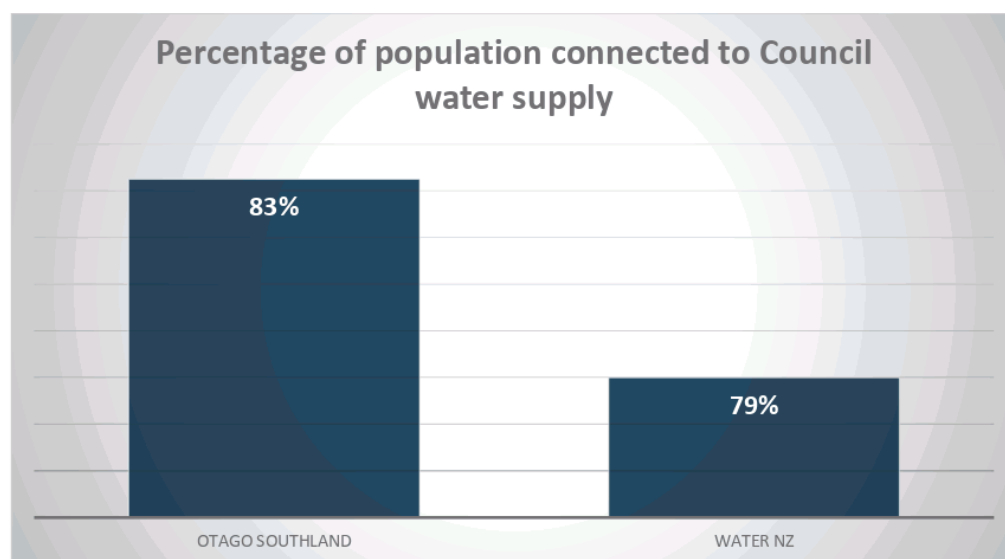


Connected population

The WICS report on three water reform in New Zealand highlights that New Zealand does not have a particularly high proportion of its population connected to water services, with some councils having as low as 35% of their population connected, and 13 councils having less than two thirds of their population connected to water services.

While the WICS report does not go so far as to suggest that higher connection rates may create operating efficiencies, it does state that, from a regulatory perspective at least, it is desirable to have a high rate of connection to ensure consistent levels of service. We note that the Water Services Bill treats all water suppliers equally and requires all suppliers to meet drinking water standards.

Low connection rates may also be indicative of a larger number of private water schemes (i.e. privately owned or operated schemes that service multiple properties), or simply a large number of rural properties connected to private supplies (i.e. tanks or bores which service a single property). With increasing regulatory requirements and the enforcement of drinking water standards, private water schemes may pose a significant financial risk for councils who under legislation can, in certain circumstances, be required to provide the service. The 2019 Register of Drinking Water Suppliers of New Zealand lists 44 non-council drinking water supplier in the region, with the majority of these servicing between 25 – 100 properties.



Connection rates in the combined regions (83% connected) are typically on par with New Zealand in general (79% connected), with only one council having indicated that less than 66% of their population is connected to drinking water services. Connection rates for wastewater services are broadly similar, though slightly lower than drinking water, a trend which is consistent with Water NZ's national performance review data.



It is possible that the percentage of connected population in some of the regions in Otago-Southland is understated due to the classification of farm properties, and the presence of multiple dwellings on some farm sites.

Investment needs

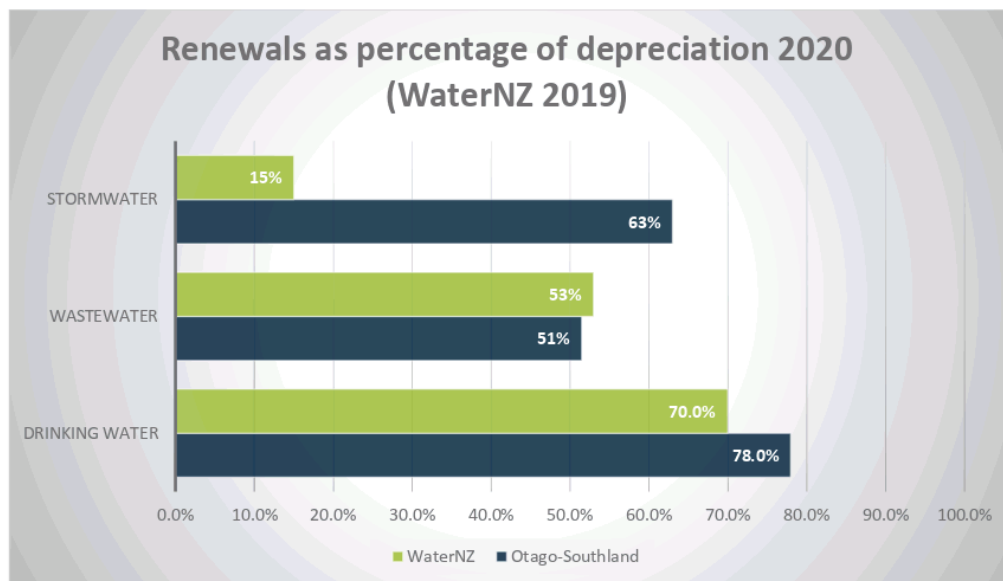
Investment in infrastructure is the most dominant driver of costs for the delivery of three water services in the region, and nationally. There is growing evidence, cited by DIA, WICS, the Office of the Auditor General and in work undertaken by Morrison Low, that the local government sector, and three waters services particularly, requires significant investment in infrastructure over the next 30 years.

This section of the report outlines the future investment requirements for the region, and the impact that those requirements may have on future water charges.

Renewals vs depreciation

Comparison of the 2020 expenditure across the region shows an average renewal ratio across the three waters of 77%. While a single year view is not appropriate for long run assets, this figure is consistent with what we would expect to find. It also outperforms the New Zealand average taken from the WaterNZ performance review. It is however, below the level that is typically referenced as being required to maintain service levels.

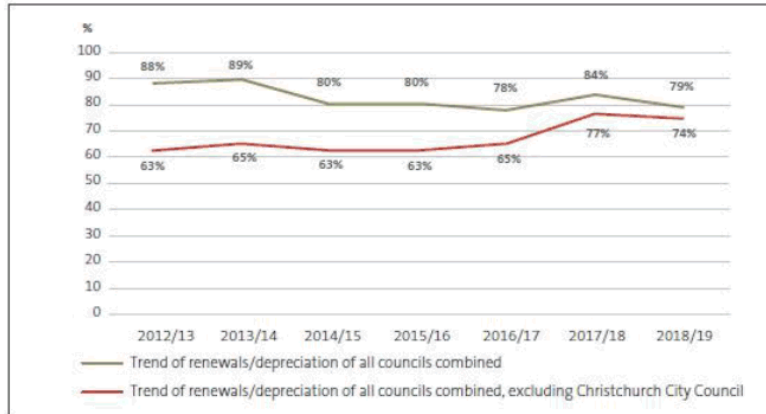
Regional and national under investment in renewals



There is growing evidence of under investment in three waters infrastructure across New Zealand. In 2018 we undertook a desktop analysis of council LTPs across New Zealand for the Department of Internal Affairs. In that project we identified that, on average, councils in New Zealand were only spending around 78% of their depreciation funding on renewals. Similar concerns have been expressed by the Office of the Auditor



General for a number of years, most recently in their report, *Insights into local government: 2019* which presented historical data showing underinvestment in renewals since 2012/13.

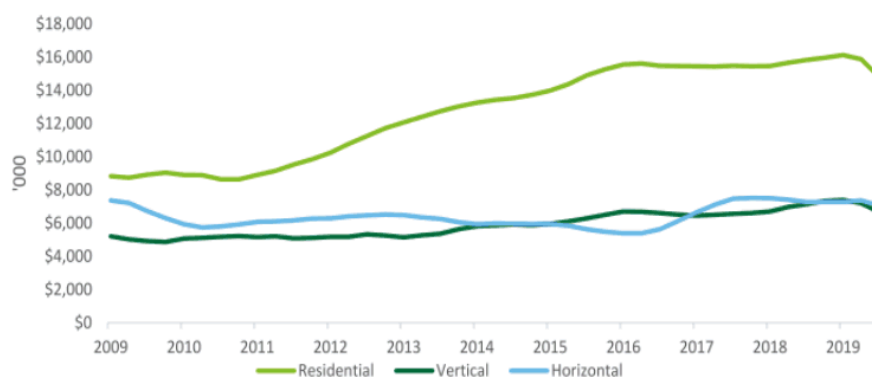


Source: Office of the Auditor General, *Insights into Local Government: 2019* (retrieved from <https://oag.parliament.nz/2020/local-govt/part1.htm> on 22 February 2021)

We note that, in their report for DIA, WICS refers to a capital maintenance ratio which we understand includes maintenance of assets and renewals, with the same 100% benchmark. Water and wastewater exceeded this metric in 2020 in the region, but some individual councils fell substantially below. Stormwater was still seeing underinvestment using this metric.

Despite an almost doubling in residential construction GDP in the last ten years, horizontal infrastructure investment has barely increased at all – this is indicative of under-investment in horizontal infrastructure across the country (particularly in growth assets). It may also be inferred that as new residential subdivision is almost certainly receiving council services, investment in servicing growth may have impacted the ability to invest in renewals and level of service improvements.

Chart 1 Construction sector GDP (E) (real terms), \$'000



Source: Deloitte: "A better way forward. Building the road to recovery together: Construction sector COVID-19 recovery study" January 2021.



Future renewals investment

\$1.5Bn

of three waters renewals
required within ten years

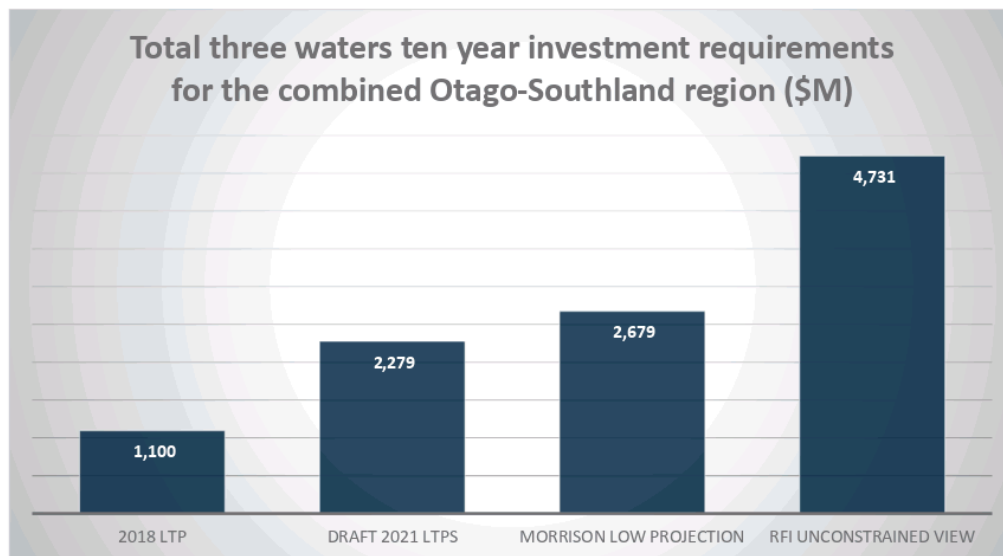
A review of asset registers indicates that, based on the remaining useful life of assets and known asset condition, the combined regions require approximately \$1.5 billion of renewals work during the next ten years. The combined RFIs outlined plans to invest in \$1.1 billion during the same time period. This figure is in our view understated.

Ten year investment need

The combined three waters investment programme is set out below. We have presented the 2018 LTP projections, the draft 2021 LTP projections, our estimate of the 2021 LTP estimates and, for comparative purposes, the unconstrained view from the RFIs.

We acknowledge that in most cases the timing of investment under the unconstrained view is unknown and at least some of this could fall outside of the ten year period but it provides an illustration of the potential costs, and the scale of the difference highlights a risk. The scale of the difference between the 2018 and 2021 projections also highlights the scale and speed of the impact of water reform.

**Planned capital
expenditure doubles
from 2018, and
doubles again in
unconstrained view**





In its report *Matters arising from our audits of the 2018-28 long term plans*³ the Office of the Auditor General indicated an increase in planned capital expenditure between the 2015-25 and 2018-28 Long Term Plans of 31%. In that report it noted that achieving that level of increase would be challenging, the levels of increase suggest in the 2021 long term plans/RFIs are of an even greater scale still.

Financial position

One of the biggest challenges cited by the government, and the WICS report prepared for DIA, is the issue of long-term affordability of three water services. All councils in New Zealand are facing significant future investment requirements and increases in operating costs to be able to meet increasing regulatory standards and enforcement activities. The situation analysis demonstrates that Otago and Southland regions are facing those same challenges.

This section looks at the various financial challenges facing the combined regions.

Cost coverage

Cost coverage is the proportion of revenue that has been collected by the councils compared to the total operating costs (including depreciation) for each of the three waters activities.

Councils are required, under the Local Government Act, to maintain a balanced budget, which means that they should collect enough revenue to cover their total operating costs (including depreciation), unless it is financially prudent not to do so. While this requirement exists at a whole of council level, it does not exist for individual activities. Generally speaking, a cost coverage of less than 100% would indicate that councils are not collecting enough revenue to meet their operating costs or to fund the maintenance and replacement of existing assets⁴.



The combined Otago-Southland region collected 99% of its costs for the water activity, and 96% of its total costs for the wastewater activity in the 2020 financial year, however there was a fair degree of variation between the councils, with the lowest cost coverage for water and wastewater being 66% and 76% respectively.

That indicates that, if combined, there may need to be significant changes in the cost of services for individual councils.

³ Retrieved from <https://oag.parliament.nz/2019/ltps/part3.htm> on 22 February 2021

⁴ In the subsequent section regarding water revenue we have projected the impact of recovering 100% of the costs for each of the water activities to align with best practice.



Impact on operating costs

\$1,300

Extra operating costs per connection under unconstrained view

WICS states in their report that the addition of a new asset will add approximately \$8 of additional operating costs (relating to the financing, depreciation, and operation) for every \$100 of new capital invested. Using this measure, if the unconstrained investment were required, this would add approximately \$186 million of additional operating costs, or \$1,300 per connection uninflated, to the combined regions. This does not include any additional operating costs associated with meeting increased compliance and monitoring obligations.

Our review of RFI information has indicated that councils' revenue forecasts in the RFIs:

- Typically do not appear to include an allowance to recover the financing costs for new investment in assets
- Typically do not appear to include an allowance for the additional depreciation or operating and maintenance costs associated with planned investment
- have yet to budget for increases in operating costs in order to meet the increasing standards and regulatory framework being placed on the sector.

The first two points have been addressed in our 'Morrison Low' projection of revenue per connection. The quantum of the third point is unknown and has not been included at this stage, however our discussions with councils in the Otago Southland region to date have indicated that a significant uplift will be required in this space. We are also aware of the significant uplift in costs of water service delivery experienced by Hastings District Council following the Havelock North water incident, which we have not seen reflected in the operating budgets of councils in the Otago and Southland regions, but which may be indicative of the scale of costs that may be required to meet the new standards.

Revenue per connection

Revenue per connection has been used in this report as a proxy for the average price of water in the combined region. The analysis at individual council level has not yet been able to be completed so this measure demonstrates the potential impact on affordability.

While this is useful for demonstrating the direction of travel, or potential rates increases that the sector may face, this is not representative of the average household charge. Additionally, we note that the potential projections of revenue per connection are based solely off RFI data and therefore:

- vary in the degree to which they incorporate additional potential operating costs for the delivery of three waters services (which are not disclosed in the RFI)
- have not been adjusted to include potential increases that Morrison Low anticipates may face the sector based on its experience in water reform and engagement with the sector
- do not include the recovery of increased depreciation or financing costs for investment that has been outlined as being required under the individual councils "unconstrained" investment plans
- do not include any potential operating efficiencies (or increased costs) that may arise through

\$3,000

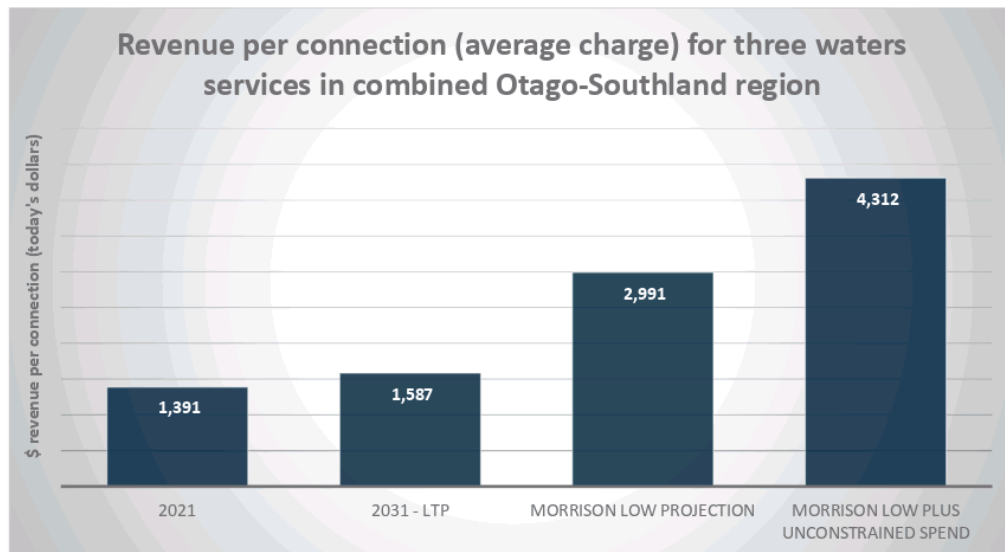
Average connection charge in 2031 (today's dollars)



structural reform of the delivery of three waters services in the combined regions.

Even without the above adjustments and considerations, there is a clear trajectory for water charges to increase in the combined regions to levels that are likely to create affordability challenges for some members of the community.

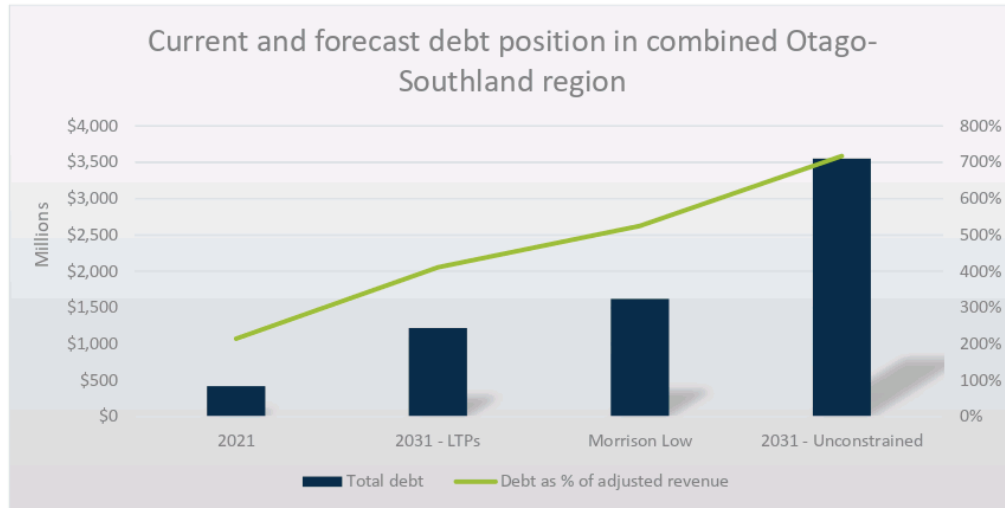
Councils predicted in their RFIs that per connection charges will increase by 14% (in real terms) by 2031. When this forecast has been adjusted to ensure that all operating costs (including depreciation) are fully funded, reflect the impact of a potential under-valuation of infrastructure, and include the financing and depreciation costs associated with planned infrastructure investment, the increase in real terms is projected to be closer to 115%.





Debt

The scale of the investment required will need to be funded by debt. That is an entirely appropriate funding mechanism for three waters infrastructure. However, the chart below shows that under each scenario the combined regions would breach the LGFA debt covenants.



Debt is forecast by councils to reach 411% of three waters revenue by 2031, with our projections showing a further increase to 525% of three waters revenue (assuming capital works are able to be delivered). Indicatively this would breach the LGFA limits (280%) as well as the Moody's limit for a Baa/Ba rating (430%).

2021 debt includes some internal borrowings which relate specifically to water (i.e. not all councils have had to borrow money externally to fund three waters to date). It would be anticipated that the majority of debt in both of the 2031 projections is, however, external.

Projected unconstrained debt assumes all potential growth and level of service related investment requirements (over and above those identified in the 2021 LTPs) would be funded by debt.

It is likely that under the unconstrained view, revenue (and therefore household bills) would be higher than under the constrained view due to increased operating costs and depreciation on new assets. This is reflected in our projections which assume that the unconstrained investment requirement will add an additional \$8 of operating costs for every \$100 of capital investment.

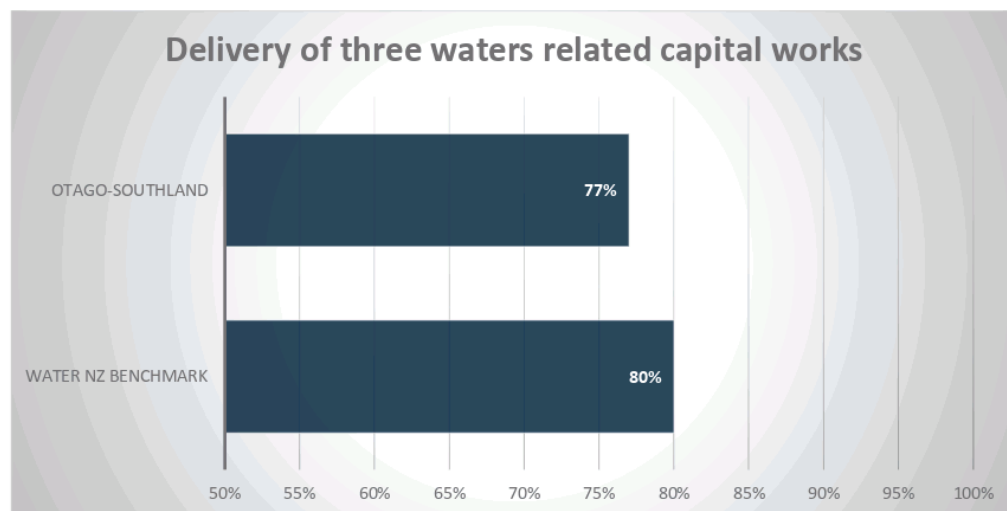
**Debt levels
breach LGFA
debt covenants
in all scenarios**



Capital works delivery

The ability to deliver on a capital works programme may have a significant impact on debt projections, rates and operational risk. As a sector, local government in New Zealand has historically been unable to deliver its full capital works budget. As most of the debt in local government relates to investment in capital assets, failure to deliver will likely result in lower than forecast debt levels and may have significant impacts on the levels of service received by ratepayers.

In our view there is a challenge to deliver the required infrastructure. The chart below shows that in 2020 the region delivered less than 80% of their expected programme. That is not unusual. The chart also shows that the Water NZ benchmarking study the average was only 80%.



While councils across the region have typically been unable to deliver the full extent of their budgeted capital works programmes, most councils were able to deliver over 100% of their renewals' budgets in the 2020 year. Delivery of level of service/upgrades was lower than budget across all three waters. Some of this is a classification issue, with classification of investment between renewals, levels of service and growth being particularly difficult as often investment is driven by more than one factor.

While Covid-19 and the associated lockdowns may have had an impact on capital works delivery in 2020, we note that sustained under delivery is common across local government in New Zealand.

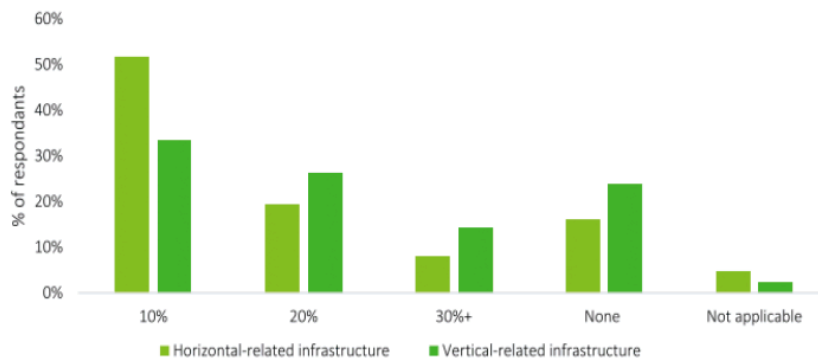
The region collectively delivered a total of \$101M of three water infrastructure in 2020. To deliver the amount of capital works outlined in RFI forecasts would require an average of \$230M per annum for ten years. We estimate that the requirement is even greater than that. It is a significant increase and there is a risk that this cannot be delivered.

\$101m
of three waters assets
constructed in 2020



A survey of construction companies in New Zealand showed that 70% of current suppliers are only able to increase their capacity to deliver by less than 20% - this points to a significant constraint in the market's ability to deliver which will require dedicated and careful pipeline management to enable the sector to sustainably grow and scale operations to ensure delivery.

Chart 28 What is your ability to increase capacity to meet the volume of work signalled in the market for infrastructure-related construction in New Zealand?



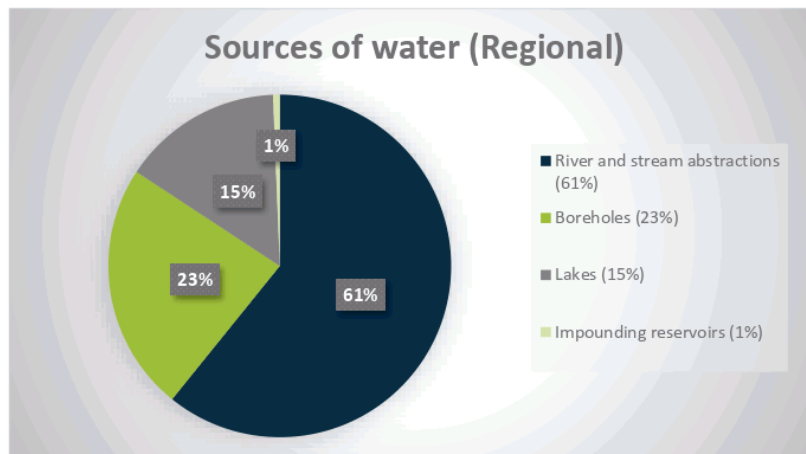
Source: Deloitte: "A better way forward. Building the road to recovery together: Construction sector COVID-19 recovery study" January 2021.

Levels of service measures

This section explores information regarding the source, treatment type and consent status of water and wastewater treatment plants in the Otago and Southland regions.

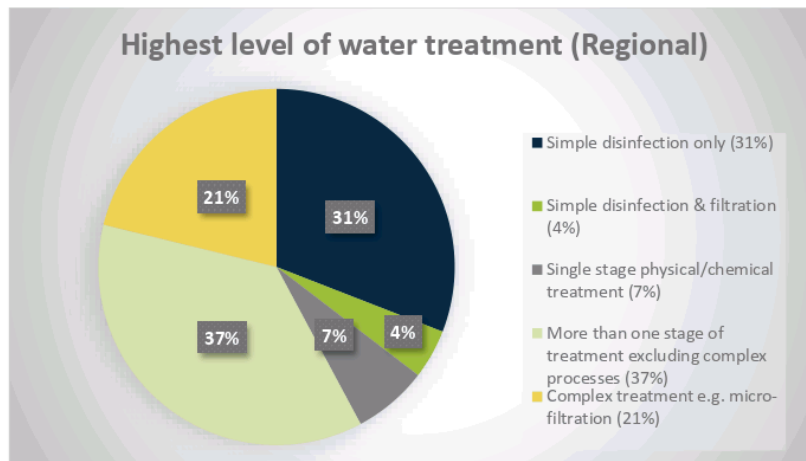
The analysis in this section highlights that the systems already have risk and levels of service that will drive investment. That investment will be required through legislation, increased regulation, and increased enforcement.

Water Supply





The breakdown of water sources across the region shows a heavy dependence on rivers, streams and boreholes, comprising 84% of the regions water supply (based on 2019/20 data). The ability to continue to access these water supplies beyond their current consents is a key consideration in resilience planning. Many WTPs in the region are already able to draw from more than one water source, with 106 sources reported, feeding into 70 water treatment plants.



From the councils' annual reports, almost all the WTPs treating 35% of the regions' water to "Simple disinfection only" and "Simple disinfection and filtration" do not meet the protozoa requirements of the Drinking Water Standards.

Currently only two councils are fully compliant with the protozoa requirements, with the other six councils having plans to upgrade most WTPs in these two categories within the current ten year LTP period. There are approximately 35 WTPs supplying water to customers at these two levels. Overall, they are smaller plants supplying smaller communities, while the larger WTPs feeding into larger towns and cities are already compliant.

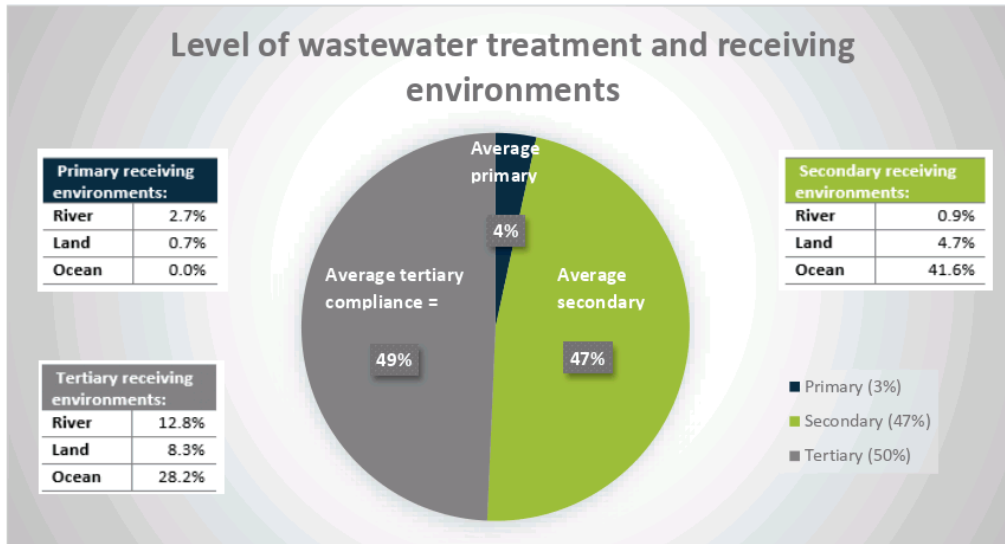
Regional risk will be from potential delays in these planned upgrades, escalation of upgrade costs, WTPs in these two categories without plans to be upgraded, and the higher operating costs of the upgraded plants. As most of the non-compliant plants are servicing smaller communities, these communities may face particularly large increases in water charges as the increased operating and capital costs are spread over a smaller base of ratepayers. Most councils in the Otago and Southland regions now charge for water using a common tariff across the district to minimise the impact on these smaller communities.

Nearly all WTPs are meeting the bacterial requirements of the Drinking Water Standards with only a few exceptions.



Wastewater

In total, 70% of the regions' total treated effluent is discharged to the ocean, 16% to rivers and 14% to land disposal systems. Over 96% of wastewater receives secondary treatment or better before being discharged to the environment.



Compliance here relates to discharge compliance only for most councils, and not necessarily all aspects of the resource consents. Nearly all secondary and tertiary WWTPs across the region regularly produce discharges compliant with the consents they are operating under, though 27 out of 61 WWTPs reported at least one non-compliance incident in the 2019/2020 year. Issues with ongoing non-compliant discharges are limited to one or two council areas only.

While future discharge standards are not fully known at this stage, there is recognition within the sector that increasing standards are inevitable. In addition, an increasing focus in recent years on the cultural significance of water, including the embedding of *Te Mana o te Wai* within the establishment of Taumata Arowai, means that discharges to freshwater particularly are becoming less acceptable (even with tertiary treatment). While the scale of investment required to meet these changing standards is difficult to estimate, in a report commissioned by DIA in December 2019, GHD and Boffa Miskell⁵ estimated a combined investment for the regions of \$510 – 770 million would be required, with an annual operating cost impact of approximately \$23.4 – 35 million. These estimates relate to a total of 38 wastewater treatment plants in the combined regions.

⁵ GHD and Boffa Miskell – *Addendum Cost estimates for upgrading wastewater treatment plants* December 2019



The average compliance of the WWTPs with primary treatment only seems very low. There are 13 schemes receiving primary treatment only across the region, though the total volume through these schemes is only 3% of the total wastewater volume.

Note there is also a very small percentage of septic tanks in use throughout the region, with three schemes accounting for approximately 0.03% of the treated loads.

Wastewater consents

Consents are required for the discharge of treated wastewater effluent into waterways and onto land, as well as odour arising from the operation of treatment plants. For the wastewater activity particularly, the resource consent application process can be both lengthy and costly. In addition, as often a significant amount of time may have passed between consents, new resource consents for wastewater treatment re often coupled with stricter regulations which reflect changing expectations.

Consents that are expiring soon, or have already expired, are therefore indicative of potential investment needs and the timing of those costs. In the Otago Southland regions 17% of the total number of wastewater consents have already expired (although some of these may not need to be replaced), with a further 28% to be replaced within ten years.

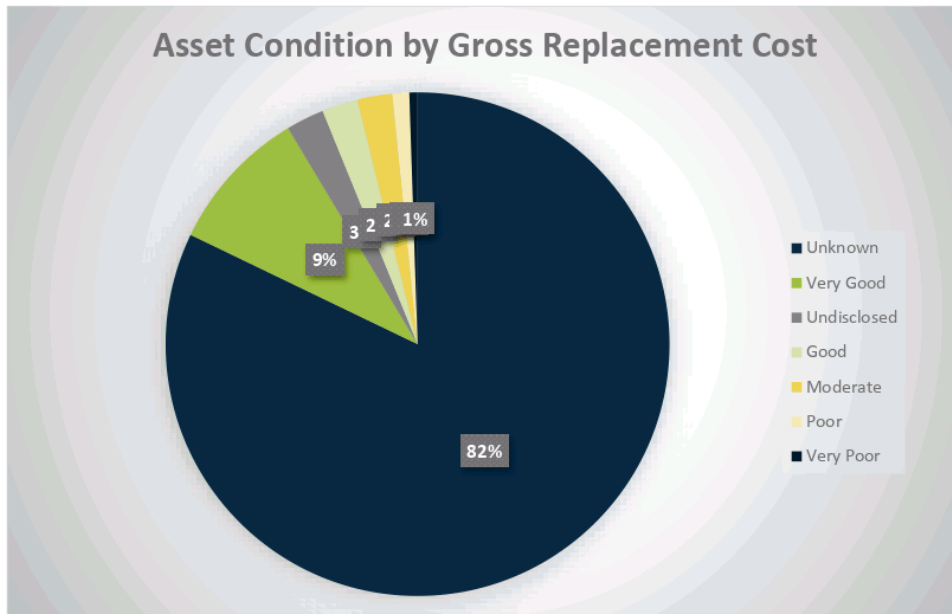
Total number of consents	116
Number expired	20 (17%)
Number with five years or less remaining	14 (12%)
Number with ten years or less remaining	19 (16%)

It is unclear how any new regulations or standards will be imposed on plants that already have a discharge consent however we consider that it is likely that any such standards will be applied at a specified date for all plants regardless of whether they have a current consent with less stringent criteria.



Current state of assets

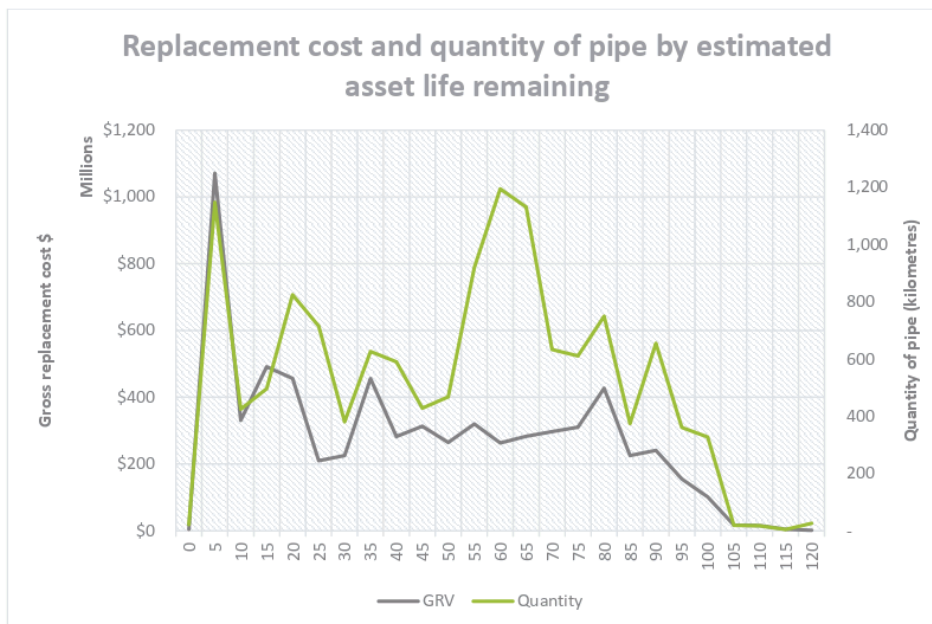
As part of this report we have reviewed the condition data aggregated at the combined region level. There are significant gaps in the data. These gaps are so significant that it is itself a finding of the report. Over 80% of the value of the three water pipe network (by value) is in an unknown condition.



The risk arising from that is the uncertainty over the accuracy of the current forecast investment needs that creates. Condition is one of the key factors that should be considered when planning for the renewal of assets within a network, and an absence of condition data means that renewal of assets may be based on age and expected life alone.

In absence of useful condition data, we have examined the remaining useful life of pipe assets with the gross replacement cost of those same assets to estimate future renewals and investment needs. The chart below shows quantity and length of pipe based on the number of years of useful life remaining.

This indicates that approximately \$1bn of assets (1,147km) have between only one to five years life remaining with that figure increasing to \$1.4bn within next ten years. A further \$950 million of assets will need to be replaced within 20 years.



In addition, where condition is known, there are \$68 million of assets in a poor or very poor condition that have more than 20 years of useful life remaining, but which in all likelihood will need replacing sooner. This represents 6.6% of known condition assets, which if representative of the entire network could add an additional \$444 million to assets that could be due for renewal sooner than their remaining lives would otherwise suggest.

Appendix B - Cross regional current state



Draft pending client review

Cross-regional current state assessment

Otago-Southland three waters office

March 2021



Document status

Job #	Version	Approving Director	Date
2578	Draft	D Bonifant	5 March 2021

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Executive summary

This current state assessment was carried out based on analysis of the eight territorial authorities' responses to a recent Request for Information (RFIs) by the Department of Internal Affairs, asset registers and infrastructure strategies.

This is the second report regarding our analysis of information provided by the councils in the Government's RFIs. The first such report focussed on the challenges and opportunities at a regional scale and remains relevant. This report follows the same structure as the regional analysis and reports findings at the territorial authority level.

This review includes councils that are located in the two neighbouring regions of Otago and Southland, and therefore covers approximately 44% of the total geographic area of the South Island, and approximately 29% of the total population of the South Island (or 7% of the national population). While both regions are unique, they also have many similarities, including being predominantly rural regions, with few large population centres.

The report highlights the many issues and opportunities facing the region for the delivery of three waters services including issues relating to potential future affordability, borrowing capacity, large capital works programmes, the need to invest to meet increasing regulatory standards and monitoring, and resource constraints.

The level of future investment across the two regions is substantial, and this is particularly well highlighted by Dunedin, whose planned infrastructure investment of \$547 million over the next ten years will see debt increase by over 150%. However, we estimate¹ that this planned investment is insufficient to meet even just their renewals need, which could be as large as \$1.2 billion for Dunedin alone.

While the absolute dollar figures for planned investment in infrastructure for the remaining councils are not typically of the same scale (as Dunedin is so large in comparison) when normalised by the number of connections in each district, Dunedin has the second lowest level of planned investment per capita. This demonstrates the challenge for smaller councils and also highlights the benefits that come with size and scale, which varies significantly within the two regions. Queenstown has forecast capital investment of more than \$30,000 per connection over the next ten years², and Central Otago, Clutha and Gore have forecast investment per connection exceeding \$15,000.

The combined population of Otago and Southland is less than that of Christchurch and it is spread over a vast area. Previous work by Morrison Low as well as analysis by the Water Industry Commission for Scotland has demonstrated the correlation between impact of future investment requirements and population density. Put simply, rural areas can be expected to cost more, on a per ratepayer basis, than denser more urban areas.

Rural councils across the region have made different decisions in the past about the level of connectivity to pursue in rural areas. This leads to councils either having larger percentages of their population not serviced by water or wastewater (or both), or councils with low connections per kilometre and consequently higher costs per capita.

¹ Morrison Low projections are based on the constrained investment plan in RFIs with adjustments based on assessment of asset registers and estimated costs for upgrading wastewater treatment facilities

² This includes a high level of investment in growth



This leads to two issues facing the combined regions:

- Potential exposure to risk from non-council water supplies and untreated wastewater under new regulations.
- Unsustainable costs increases required to maintain and renew large asset bases to service rural communities.

Planned renewals costs across the region have increased significantly between the 2018 and 2021 LTP budgets. Future planned renewal costs are likely to accelerate upwards as renewal requirements continue to increase, and councils without significant depreciation reserves will need to fund these renewals as they arise. The future investment required to meet the changing regulatory requirement means the ten year Capital Investment Programme for three waters has more than doubled from that within the 2018 LTP.

- The combined 2018 LTP programmes were \$1.2 billion
- The combined 2021 LTP programmes are now \$2.3 billion
- Morrison Low's estimate of the required investment programme over the same timeframe is \$3.3 billion³
- We note that the 'unconstrained' ten year programme⁴ from the RFI was \$4.6 billion

The future renewal requirement is not a 'bow wave' as has previously been described. It is sustained over at least the next 20 years. We estimate the projected renewal requirements for years 10 - 20 at \$950 million.

Cost recovery in most councils appear to be focussed on 'cash' expenses only and depreciation has not been fully funded. This leads to increased forecast debt levels across the region, with five out of the eight councils breaching the 280% debt to revenue ratio (on three waters activities in isolation) by 2031. Queenstown's three waters debt is forecast to be over 700% of its three waters revenue in 2031, and Gore's will exceed 600% of three waters revenue.

Across all councils, three waters accounts for a higher proportion of total council borrowing than it does for total revenue generated. This puts heavy constraints on each council's capacity to borrow for other council activities (e.g. community facilities), as the servicing of debt is effectively cross-subsidised from other council revenue. In the event that three waters assets, debt and revenue is transferred to a new entity, this is likely to result in increased borrowing capacity for all councils in the two regions.

Councils have shown an awareness of the need to increase planned renewals in the coming 2021 LTP period, as well as plan to improve levels of service to meet Drinking Water Standards and other anticipated regulatory requirements. However, most councils have not increased operating cost budgets in proportion with a larger, more complex asset base or for the increased operating costs associated with higher levels of regulation and monitoring that will arise from the activities of Taumata Arowai, the Water Services Bill, and the potential establishment of an economic regulator for water.

Our estimates indicate the average amount of revenue that needs to be collected per water connection will have to increase by 123%, before the application of inflation, to be able to meet some of these increased operating costs. This estimate also excludes any allowance for operating costs associated with increased regulation and monitoring. The effects are particularly notable in Waitaki, where the average revenue per connection is forecast to more than triple from \$697 per connection to \$2,342 per connection, and Queenstown, which is forecast to require the highest average revenue per connection of \$2,994.

³ Morrison Low projections are based on the constrained investment plan in RFIs with adjustments based on assessment of asset registers and estimated costs for upgrading wastewater treatment facilities. This differs from the figure stated in the regional situation analysis as individual council needs have been assessed and additional investment for wastewater compliance included.

⁴ The unconstrained programme is based on council estimates of required investment in the absence of financial or capacity constraints. In some cases this is little more than a guess.



There is a risk that even with funding available, the capacity to deliver programmes with such large scope of work does not exist in the two regions. While correctly identifying the need to increase capital investment, up to more than double the 2019 programme levels, there is legitimate concern about the capacity of the councils to deliver increased capital investment programmes, with four of the eight councils delivering only half or less of their 2020 capital works programmes. Moreover, those that were able to deliver the full value of their capital works programmes will still be required to uplift their total amount of delivery further still to meet planned investment requirements. Of particular concern, we note:

- Despite current delivery at twice their three waters capital works budget in 2020, Dunedin would need to increase delivery by a further 85% to deliver their forecast average annual budget
- Clutha would need to deliver four times that amount of capital works that they delivered in 2020, when they only managed to deliver 32% of their budgeted programme.
- Invercargill would have to deliver three times the level of capital works that it did

The possibility of increased regulation as an outcome from the Three Waters Reform will compound this issue, with the potential for simple wastewater treatment plants to require upgrades in order to keep discharging to their local environments, the potential for councils to become responsible for private water supply schemes, and other as yet unknown requirements.

This is reflected in some councils plans to increase the level of human resources that are employed in three waters teams. Filling these roles is likely to be challenging however, as there are currently 32 existing vacancies in the three waters area across the two regions. This equates to 12.8% of the water related roles in the two regions. Competition between councils for these roles, which are generally accepted to be in an industry that is facing a skills shortage, will pose big challenges for retention and recruitment in the two regions, and may impact on the councils' ability to deliver planned works.

Eighty two percent (82%) of the three waters pipe network (by value) across Otago and Southland is in an unknown condition. This is a significant portion of the network and as a result there must therefore be uncertainty about the future investment requirements and risks that these could be greater than estimated.

As expected, there is a variety of pipe materials and ages across the regions, with estimated base lives and unit rates relatively consistent and in line with industry norms. However there are a few outliers such as Asbestos Cement pipes having a base life of 120 years in Waitaki wastewater when all other councils assume 60 years, and Dunedin's much higher unit rates across the three waters network assets (for example Dunedin's unit rate for 100mm water pipe is three time higher than the next highest cost council), most likely due to the urban environment and complexity of replacement. If these were to be revised or normalised, there would be significant impacts to operating costs (depreciation and maintenance), as well as the timing and value of planned renewals.



Introduction

This report forms part of a suite of reports commissioned by the Otago Southland Three Waters Office to explore the impacts of the Government's proposed reform of three waters service delivery. This is the second report regarding our analysis of information provided by the councils in the Government's request for information (RFI). The first such report focussed on the challenges and opportunities at a regional scale and remains relevant. This report follows the same structure as the regional analysis and reports findings at the territorial authority level.

This review includes councils that are located in the two neighbouring regions of Otago and Southland, and therefore covers approximately 44% of the total geographic area of the South Island, and approximately 29% of the total population of the South Island (or 7% of the national population). While both regions are unique, they also have many similarities, including being predominantly rural regions, with few large population centres.

It is intended that this report will help to identify and highlight the various issues and opportunities that exist for the delivery of three waters services for each of the territorial authorities within the Otago and Southland regions. This report presents key information from RFIs and asset registers, as well as additional analysis and projections completed by Morrison Low to compare the scale of challenges between councils. The intention is not to benchmark councils' performance (although it is acknowledged that this process does enable that) but rather to highlight where differences and similarities exist.

In addition, we note that:

- This report presents high level analysis based on data included in RFIs submitted to the Department of Internal Affairs (DIA). Due to time constraints this means that while some clarification has been sought where information appears to be obviously wrong, the reliability of this data may differ between councils. For instance, we have not made any adjustment to information that was assigned a low confidence grade in the RFI.
- All analysis contained within the report is sourced from council RFIs or asset registers unless otherwise stated.
- Analysis is focussed on information at the end of the 2019/20 financial year unless otherwise stated.
- This analysis is subject to detailed modelling (including consideration of potential operational and investment related efficiencies) which may have a significant impact on projected levels of debt and water charges in particular. This modelling may result in projected debt and charges being higher or lower than stated within this report.

This report, and the wider review considers both of these regions together, however for presentation purposes it has been necessary to sometimes present information for each region separately.

This report has been structured to follow a logical progression that highlights the key challenges and opportunities facing the region. Analysis has been specifically focussed on matters which are able to clearly demonstrate the risks, issues and challenges for the region and can be easily understood without the need for comparison to individual council performance.



In particular the report addresses the following:

- The size and scale of the councils, which is relevant when considering the potential for efficiencies from scale and scope.
- The future investment needs and the ability to deliver capital works, which is relevant as a significant driver of future cost within each council.
- The financial position of the region, which provides additional information about potential future affordability issues facing councils.
- The current levels of service provided by the councils, which is relevant as a driver of future cost and exposure to operational risk.
- The current workforce and human resources utilised by each council which highlights some of the capability challenges facing the councils.
- The differences in asset valuation and base lives which impact renewals planning, forecast investment and operating costs of the councils.
- The current state of assets of each council which highlights some of the potential risks with the information set that has been used and the age and condition of each council's assets.



Size and scale

One of the main arguments for reform of three waters service delivery in New Zealand is that councils do not individually have sufficient scale and capacity to be able to sustainably address the challenges that are facing the sector. Through various studies into international best practice, DIA has indicated that, in its view, aggregation of water services delivery is needed to address these issues.

Understanding the size and scale of the regions is critical in understanding whether any of the territorial authorities would have the requisite scale to address the challenges on its own.

This section highlights vast differences in the size and scale of the councils in the two regions. Dunedin, the largest council in the group collects almost twice the amount of rates revenue of Queenstown (which has the second highest amount of rates revenue) and has a population larger than the entire Southland region.

The region also has the fourth least dense district in New Zealand, being Southland District (behind only Mackenzie, Westland and Chatham Islands) while also having the 11th most dense city. These differences in size and scale could create unique challenges for any combined service delivery model and have a significant impact on the way in which three waters services are delivered.

Relative size of the councils

The five councils in the Otago region show a wide range of size and scale, with Dunedin City Council (Dunedin), the largest of the Otago and Southland groups, generating almost seven times the annual operating revenue of Clutha District Council (Clutha), the smallest of the Otago region.

Dunedin's land area is less than a third of the size of Central Otago District Council (Central Otago), the largest Council in the Otago region, as shown in the following table. These differences in size, population and operating revenue are likely to have a significant bearing on the costs of producing and treating water and wastewater in each of the councils. They also influence the number of schemes and plants required.

**Dunedin generates
11 times more
revenue than the
smallest council
(Gore)**

Table 1 Territorial Authority key statistics for the Otago region

	Central Otago	Clutha	Dunedin	Queenstown Lakes	Waitaki
Land area (km ²)	9,956	6,335	3,287	8,719	7,109
Population ⁵	23,900	18,300	134,100	47,400	23,500
Population density	2.4/km ²	2.9/km ²	40.8/km ²	5.4/km ²	3.3/km ²
<i>Council operating⁶ revenue (\$000)</i>	45,123	40,614	274,050	170,407	50,659
<i>Council operating expenditure⁷ (\$000)</i>	40,818	44,557	278,350	167,057	53,540

⁵ Statistics New Zealand subnational population estimates at 30 June 2020

⁶ 2019/20 Annual reports – excludes vested assets and gains/losses on sale

⁷ 2019/20 Annual reports – excludes losses on sale



	Central Otago	Clutha	Dunedin	Queenstown Lakes	Waitaki
<i>Council capital expenditure (\$000)</i>	29,092	14,137	90,602	66,245	19,230
<i>Council rates revenue (\$000)</i>	31,140	26,696	156,949	83,563	32,833
<i>Median personal income⁸</i>	33,300	30,900	25,500	40,600	27,700
<i>Council employees</i>	202	130	998	497	228

The Southland region consists of only three territorial authorities, which again show broad diversity in size and scale.

The Southland District Council (Southland) encompasses the largest area of all councils in New Zealand, with more than double the land area of the second largest council by area. The land area includes the Fiordland National Park, and the Rakiura National Park (which combine to cover almost half of the total land area in Southland). By way of contrast, Invercargill City Council (Invercargill) and Gore District Council (Gore) cover the two smallest areas of land mass in the Otago and Southland regions.

Entire Southland region has lower population than Dunedin alone

While Invercargill has the highest operating revenue in the Southland region, this is still more than 25% lower than the total operating income in Queenstown Lakes District Council (Queenstown), despite a larger resident population.

The differences in the size, scale and geography of these councils contributes to the different ways in which three waters services are provided. This is highlighted with differences in population density throughout the region, varying from only 1.1 person per km² in Southland through to 146.8 people per km² in Invercargill.

Table 2 Territorial Authority key statistics for Southland region

	Gore	Invercargill	Southland
Land area (km ²)	1,254	389	29,552
Population ¹	12,900	57,100	32,500
Population density	10.3/km ²	146.8/km ²	1.1/km ²
<i>Council operating² revenue (\$000)</i>	27,489	98,279	77,634
<i>Council operating expenditure (\$000)</i>	26,919	98,833	78,510
<i>Council capital expenditure (\$000)</i>	11,144	18,671	26,134
<i>Council rates revenue (\$000)</i>	17,310	55,550	46,578
<i>Median personal income</i>	30,900	29,900	36,300
<i>Council employees</i>	117	410	187

⁸ StatsNZ 2018 Census



Connection density

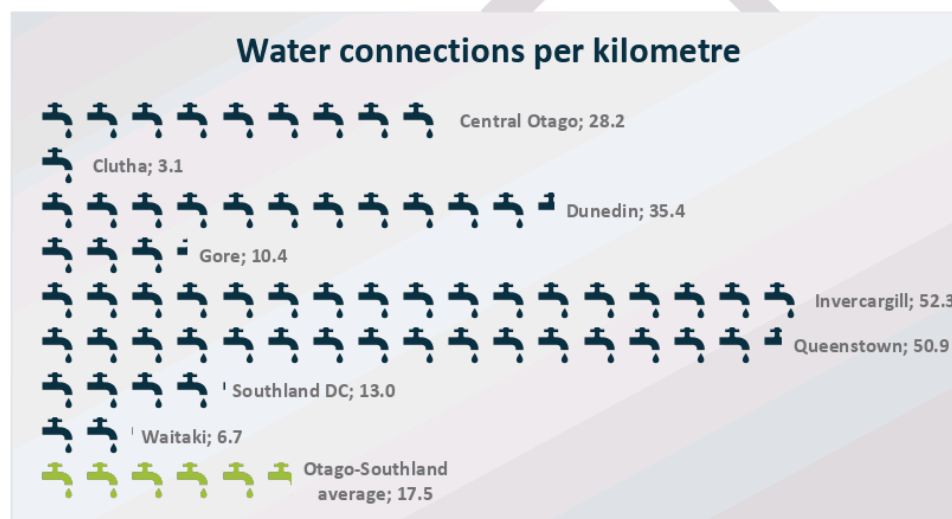
Connection density can be an important driver of cost on a per head basis.

Councils with a lower number of connections per kilometre of pipe are likely to face increased costs per connection, particularly when it comes to investing in upgrades to meet new environmental and regulatory standards or the renewal and depreciation of those assets.

Combined, the region would have less connections per kilometre of pipe than the average small council in the 2018/19 Water New Zealand National Performance review (22.7 connections per kilometre). When examined individually, there is significant variation in connection density between the councils, with Clutha District Council having as few as 3.1 connections per kilometre of water pipe, while Invercargill City Council has as many as 52.3 connections per kilometre.

**Large variation
in connection
density**

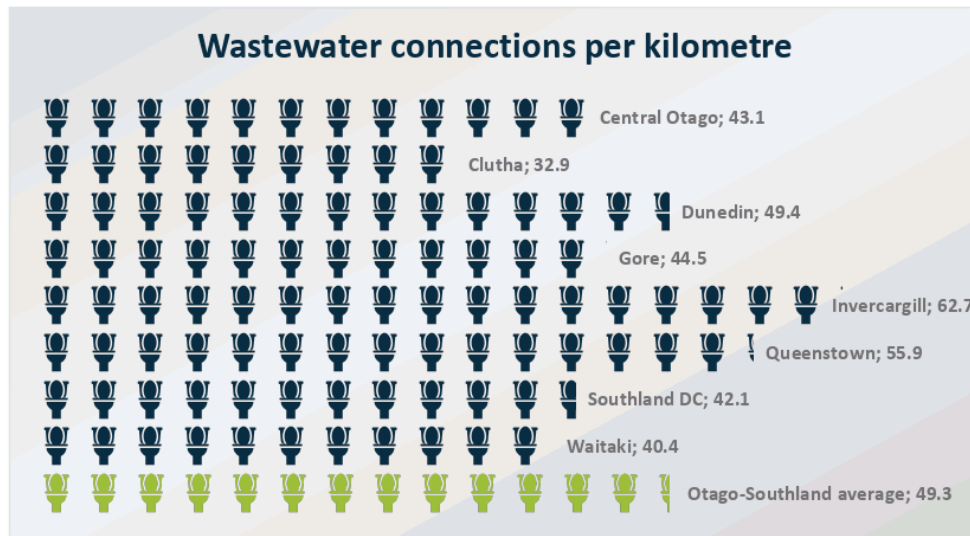
Figure 1 Water connections per kilometre of pipe



The differences in connection density between council areas demonstrates a rural/urban divide, with the largest, more urban council typically having a higher connection density. However, even outside the urban centres there is a large difference in connection density which highlights the challenges for the provision of affordable and sustainable drinking water services to small communities.



Figure 2 Wastewater connections per kilometre of pipe



1.5

Water connections per kilometre in least dense areas

Combined, the region also has less wastewater connections per kilometre of pipe than the average for large councils in the 2018/19 Water NZ National Performance Review as shown above. There is also significantly less variation in density across the individual councils.

This suggests that there are a number of small communities that are serviced with water, but which are not connected to a public wastewater network. The largest of these differences relate to Clutha and Waitaki District Council (Waitaki), where the difference in densities infers that there is a combined 3,800 kilometres of water pipe servicing only 5,600 connections (or just under 1.5 connections per kilometre of pipe).

Connected population

In their report commissioned by DIA⁹ (the WICS report), the Water Industry Commission for Scotland (WICS) report on three water reform in New Zealand highlights that New Zealand does not have a particularly high proportion of its population connected to water services, with some councils having as low as 35% of their population connected, and thirteen councils having less than two thirds of their population connected to water services.

77%

Population connected to a council water supply

While the WICS report does not go so far as to suggest that higher connection rates may create operating efficiencies, it does state that, from a regulatory perspective at least, it is desirable to have a high rate of connection to ensure consistent levels of service. We note that the Water Services Bill treats all water suppliers equally and requires all suppliers to meet the Drinking Water Standards.

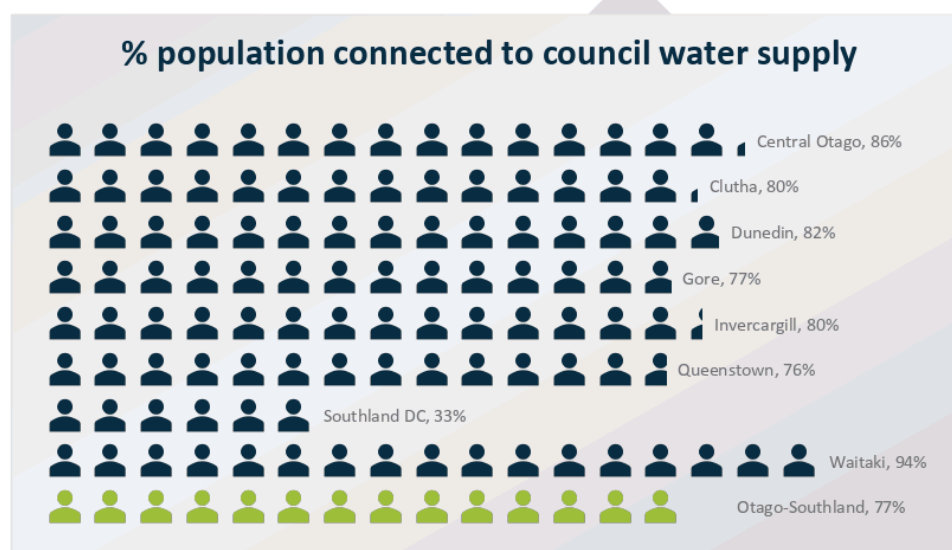
⁹ Water Industry Commission for Scotland, *Economic analysis for water services aggregation* (retrieved from [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/Economic-analysis-of-water-services-aggregation-Stage-One-Report.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/Economic-analysis-of-water-services-aggregation-Stage-One-Report.pdf) on 2 March 2021)



Low connection rates may also be indicative of a larger number of private water schemes (i.e. privately owned or operated schemes that service multiple properties), or simply a large number of rural properties connected to private supplies (i.e. tanks or bores which service a single property). With increasing regulatory requirements and the enforcement of drinking water standards, private water schemes may pose a significant financial risk for councils who under draft legislation may, in certain circumstances, be required to provide the service. The 2019 Register of Drinking Water Suppliers of New Zealand lists 44 non-council drinking water supplier in the region, with the majority of these servicing between 25 – 100 properties.

In a presentation to the IPWEA northern branch in March 2021, Bill Bayfield, the Chief Executive of the Taumata Arowai Establishment Office, suggested that early estimates of the potential number of private supplies in the country (including small supplies affected less than 25 people) exceed 70,000 nationwide.

Figure 3 Percentage of population connected to a council water supply



Connection rates in the combined regions (77% connected) are typically on par with Water New Zealand's benchmark¹⁰ (79% connected), with only Southland District showing a particularly low percentage of their population being connected as shown above. It is interesting to note that there does not appear to be a strong link between urbanisation and connected population, with Waitaki having the highest rate of connected population in the combined region.

The data show that both Waitaki and Clutha have previously made investment decisions to connect a large proportion of their population to drinking water schemes despite large geographical distances making this difficult. These councils have relatively high rates of connected population, but consequently also have the lowest density of connection per kilometre of pipe.

¹⁰ Water New Zealand National Performance Review 2019/20



Figure 4 Percentage of population connected to a council wastewater system



Typically, there are fewer people connected to a council wastewater system than there are connected to a public water system¹¹, and this is reflected in the chart above. The exception is Southland where although a very low proportion of its population are connected to a council wastewater system, there is actually a greater number of people connected to wastewater systems in Southland than there are connected to public water.

The data also highlights a difference in terms of connected population for Waitaki, with only 71% of the population connected to a council wastewater scheme (94% are connected to a public water scheme).

¹¹ Connected population for wastewater is based on household density for connected water population, multiplied by the number of household wastewater connections.

Investment needs

Investment in infrastructure is the most dominant driver of costs for the delivery of three water services in the region, and nationally. There is growing evidence, cited by DIA, WICS, the Office of the Auditor General and in work undertaken by Morrison Low, that the local government sector, and three waters services particularly, requires significant investment in infrastructure over the next 30 years. This is being driven by renewal requirements and an expected upgrade programme to meet anticipated increased environmental and regulatory standards for water, wastewater and stormwater.

This section of the report outlines the future investment requirements for the region, and the impact that those requirements may have on future water charges.

While all councils face different challenges and issues going forward, a review of draft infrastructure strategies identified a number of common themes among the councils of the Otago and Southland regions. Major themes of asset renewal, drinking water standards, upgrades driven by discharge consents and compliance were evident in all of the strategies, and are also reflected in the analysis in this report.

Figure 5 Word cloud summarising key themes from infrastructure strategies



The scale of the required investment over this time period is substantial with the region doubling its planned three waters capital works from the amounts outlined in 2018 long term plans. For some councils, the change is even greater still, for example Waitaki has estimated that their planned capital works for the next ten years should be more than four times larger than its planned capital works in its 2018 long term plan.

Delivering this planned investment in a way that is sustainable and affordable will be inherently challenging. Local government across New Zealand has historically failed to physically deliver its capital works programmes, and for most councils in the region, delivery of required renewals alone would require a significant uplift in the amount of capital works that councils have been historically able to achieve across all investment categories.

Planned capital expenditure doubles from 2018, and doubles again in unconstrained view

Renewals vs depreciation

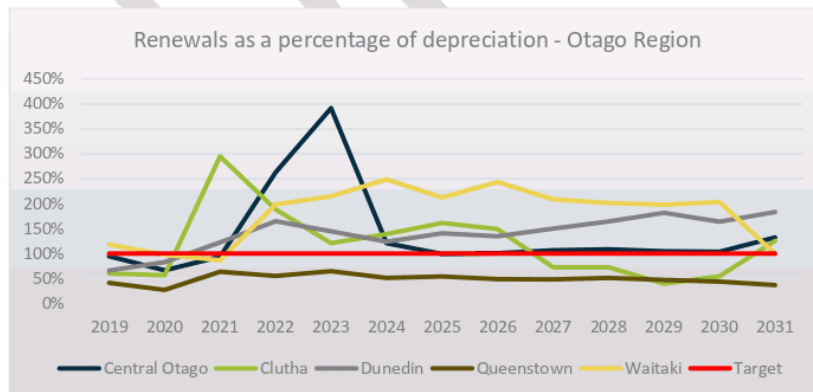
Investment in renewals and depreciation incurred are often offset in time, though over an extended number of years, we would expect the investment level to equal the expense of ownership.

Comparison of the 2018/19 and 2019/20 expenditure across the region shows average renewal ratios across the three waters of 70% and 64% respectively¹². While there is significant variation in the level of renewals investment between the individual councils, across both 2018/19 and 2019/20 there are only two incidences of the renewal's ratio exceeding 100% of depreciation (being Invercargill and Waitaki in 2019). On the other hand, there were four incidences of investment in renewals being less than 50% of depreciation, being Queenstown in 2018/19 and 2019/20, and Gore and Southland in 2018/19.

Historical under investment in renewals

That situation is projected to change significantly in the next ten years as shown in the charts below.

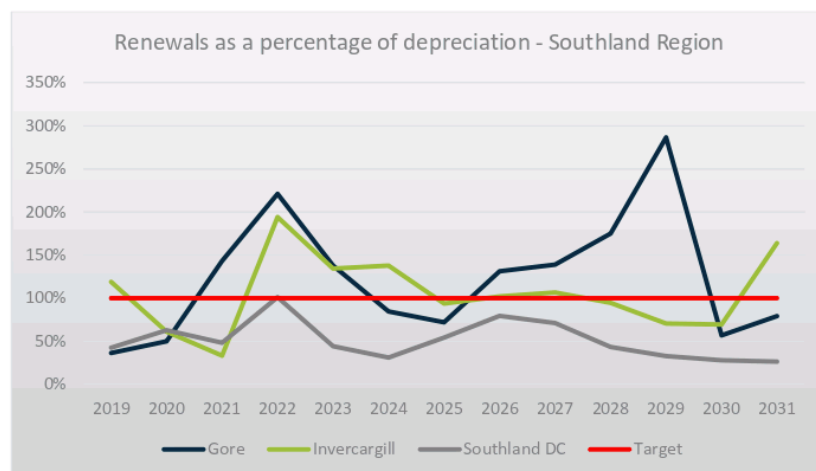
Figure 6 Renewals as a percentage of depreciation in the Otago region



¹² More detailed and granular analysis at an individual council level has resulted in this number reducing from that cited in the regional situation analysis which stated a renewals ratio of 77%



Figure 7 Renewals as a percentage of depreciation in the Southland region



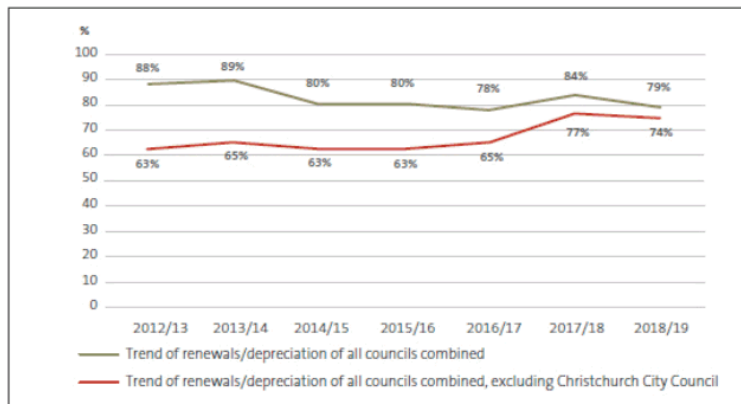
Looking across the full ten-year 2021 Long-Term Plan period shows a planned increase in renewals investment across most of the councils, with all councils other than Queenstown Lakes District and Southland District planning to invest at least 100% of their depreciation¹³ over the period in renewals. However, as most of this represents forecast expenditure, it is reliant on projects being efficiently and effectively delivered, and not delayed, to maintain this balance. See the Capital Works Delivery section of this report for more detail but delivery of planned expenditure has historically been difficult for some councils

There is growing evidence of under investment in three waters infrastructure across New Zealand. In 2018 we undertook a desktop analysis of council LTPs across New Zealand for the Department of Internal Affairs (DIA). In that project we identified that, on average, councils in New Zealand were only spending around 78% of their depreciation funding on renewals. Similar concerns have been expressed by the Office of the Auditor General for a number of years, most recently in their report, *Insights into local government: 2019* which presented historical data showing underinvestment in renewals since 2012/13.

¹³ Forecast depreciation for 2022 and beyond was taken from cashflow statements in the completed RFIs, in some cases forecast depreciation in 2022 from cashflow statements was lower than actual depreciation for 2020, so depreciation may be understated.



Figure 8 Historical renewals versus depreciation – all New Zealand Councils¹⁴



Most councils in New Zealand have not retained the cumulative shortfall between renewals investment and depreciation, meaning as networks age, the future periods where the renewals investment required far exceeds the depreciation expense, will not be adequately funded from reserves. The analysis in the Cost Coverage section of this report suggests that this equally applies to councils in these two regions. These periods of peak renewals typically lie beyond the 10-year horizon of the LTP but within the 30 year horizon of the Infrastructure Strategy, shown in more detail in the Asset Age and Condition sections of this report further on.

We note that, in their report for DIA, WICS refers to a capital maintenance ratio which we understand includes maintenance of assets and renewals, with the same 100% benchmark. While the region exceeded this benchmark for water and wastewater, individual council performance varied. Clutha, Gore and Queenstown all fell below 100% under this benchmark for drinking water services in 2020. Performance against this benchmark was worse in both wastewater and stormwater with only Dunedin, Central Otago and Waitaki exceeding the benchmark for wastewater in 2020, and only Dunedin and Invercargill exceeding it for stormwater services.

We note that classification issues may contribute to the apparently low renewals ratios, with classification of infrastructure investment between renewals, level of service and growth being notoriously challenging. In some cases investment may be entirely driven by growth or level of service drivers but have involved the replacement of an asset before the end of its useful life.

This adds to growing evidence, including from the Office of the Auditor General, that there has been historical under-investment in the renewal and maintenance of infrastructure at a national level. This underinvestment has impacts on levels of service and future investment requirements for the region.

¹⁴ Source: Office of the Auditor General, *Insights into Local Government: 2019* (retrieved from <https://oag.parliament.nz/2020/local-govt/part1.htm> on 22 February 2021)



Future renewals investment

\$1.5Bn

of three waters renewals
required within ten years

A review of asset registers indicates that, based on the remaining useful life of assets and known asset condition, the combined regions require approximately \$1.5 billion of renewals work during the next ten years. The combined RFIs outlined plans to invest in \$1.1 billion during the same time period. This figure is in our view understated, although this difference relates predominantly to Dunedin, with seven of the eight councils projecting to spend more than age alone would indicate.

The table below highlights the planned renewals investment from individual councils, as stated in their RFIs for the period between 2021 and 2031, the value of three waters pipe assets that have less than 10 years remaining useful life, and the value of assets disclosed as having a poor or very poor condition which have an estimated remaining useful life that exceeds 20 years.

In our view there should not be a significant difference between the value of assets that may need replacing based on age and the planned renewals. The view is somewhat supported by seven of the eight councils planning to invest more in renewals than the value of assets that would need replacing based on age alone.

Table 3 Planned renewals investment compared to Morrison Low estimates (Gross Replacement Cost)

Council	10 year renewals	Assets with <10 years life remaining	Assets in very poor or poor condition with >20 years RUL ¹⁵	Total value of assets that may need replacing	Gap
CODC	\$56 m	\$10 m	\$2 m	\$12 m	(\$44 m)
CDC	\$49 m	\$14 m	\$6 m	\$20 m	(\$29 m)
DCC	\$470 m	\$1,203 m	\$26 m	\$1,229 m	\$759 m
GDC	\$43 m	\$8 m	\$0 m	\$9 m	(\$34 m)
ICC	\$183 m	\$145 m	\$5 m	\$151 m	(\$32 m)
QLDC	\$119 m	\$9 m	\$60 m	\$69 m	(\$49 m)
SDC	\$35 m	\$7 m	\$2 m	\$9 m	(\$26 m)
WDC	\$107 m	\$9 m	\$2 m	\$11 m	(\$96 m)
Otago-Southland	\$1,061 m	\$1,406 m	\$103 m	\$1,510 m	\$449 m

Seven of the eight territorial authorities in the Otago-Southland region have budgeted to spend significantly more on renewals than would otherwise be predicted through a review of age and condition of assets alone (combined this equates to investing \$310 million more in renewals than our high level analysis). It is likely that a portion of this relates to the replacement of above ground infrastructure (i.e. treatment plants), although the most common driver for this investment is level of service improvement.

This may also be to issues with the valuation of assets within the asset registers and in investment plans. Our projections are based on the gross replacement cost of assets within council's asset registers. We note that there is a significant variation in the unit rates used to determine these value, as highlighted in the section titled differences in valuation and depreciation (page 56). This may also explain the differences between projected renewals in Dunedin and our forecasts, noting that Dunedin undertook a revaluation as recently as late 2020.

¹⁵ Where condition is unknown, we have assumed that the condition of assets is consistent with that of known assets.



For example, Waitaki has planned renewals that are over nine times higher than our estimates. This may indicate that Waitaki is proactively planning to replace assets early to smooth an impending renewals wave or has otherwise determined that asset performance is not well aligned to asset age. The risk of this is that assets which are renewed before the end of their useful lives may not have been fully “paid for” through depreciation charges.

Dunedin City Council is planning on replacing less than half of the total value of its pipe network that has been identified as having a remaining life of less than ten years. It is likely that Dunedin has identified renewals based on more factors than age alone and may have also considered criticality of its assets as well as condition and performance of its network (we have not been provided with any condition data for Dunedin’s pipe network). While this may also relate to the classification of expenditure between renewals, level of service enhancement and growth investment, we note that Dunedin’s entire capital works programme for the ten year period is \$547 million (or \$800 million in the unconstrained view). We note that our projected estimates for Dunedin are based on.

Performance of Dunedin’s water network is outlined in the section titled Levels of service measures (page 35) and shows the second highest rate of water pipe bursts per 10 kilometres of pipe in the region. This would support our analysis that a large amount of Dunedin’s three waters infrastructure may need replacing in the next ten years.

Ten year investment need

The combined three waters investment programme is set out below. We have presented the 2018 LTP projections, the draft 2021 LTP projections, our estimate of the future investment requirements and, for comparative purposes, the unconstrained view from the RFLs.

We acknowledged that in most cases the timing of investment under the unconstrained view is unknown and at least some of this could fall outside of the ten year period but it provides an illustration of the potential costs, and the scale of the difference highlights a risk. The scale of the difference between the 2018 and 2021 projections also highlights the scale and speed of the impact of water reform and the councils’ reaction to the already changing regulatory environment.

The Morrison Low projections outlined in the projected future expenditure charts include any underfunded renewals investment per our analysis on page 16, as well as projected capital costs for the upgrade of wastewater plants which have consents expiring within 10 years to the extent that these costs have not been allowed for within the RFLs.



Figure 9 Projected ten year investment requirements for Otago region

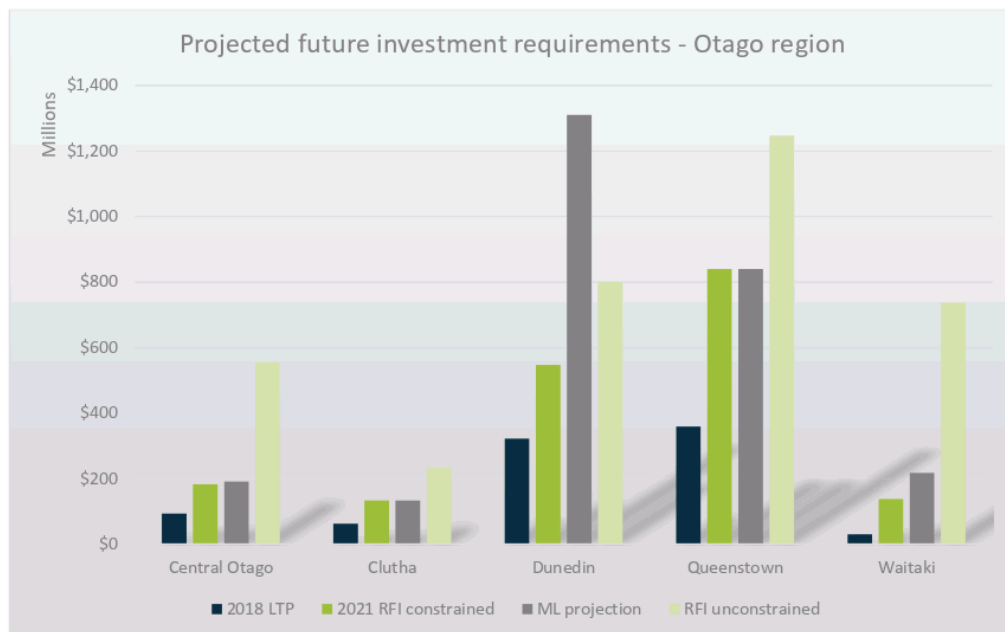
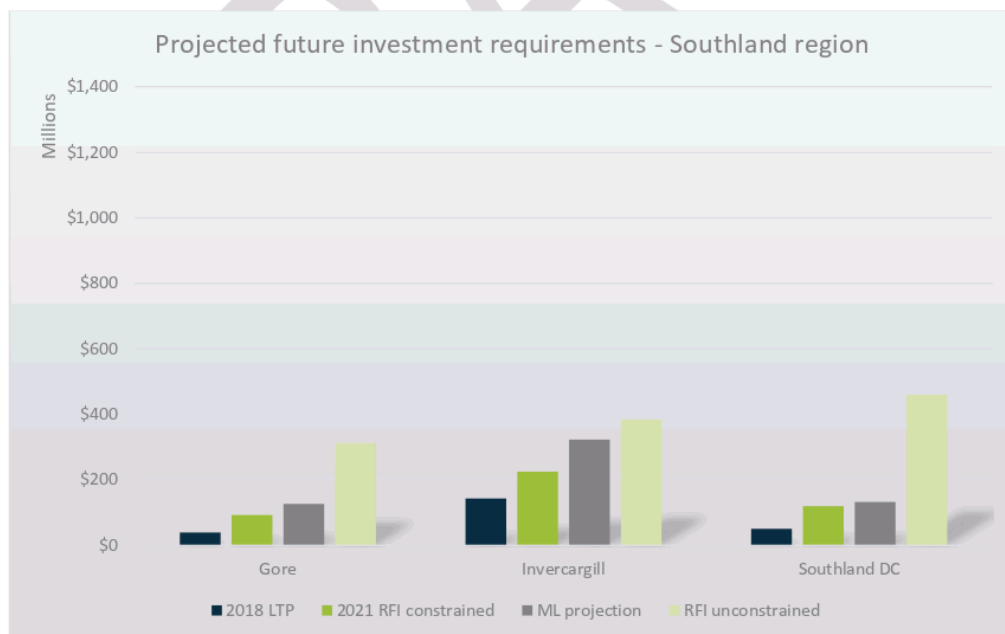


Figure 10 Projected ten year investment requirements for Southland region



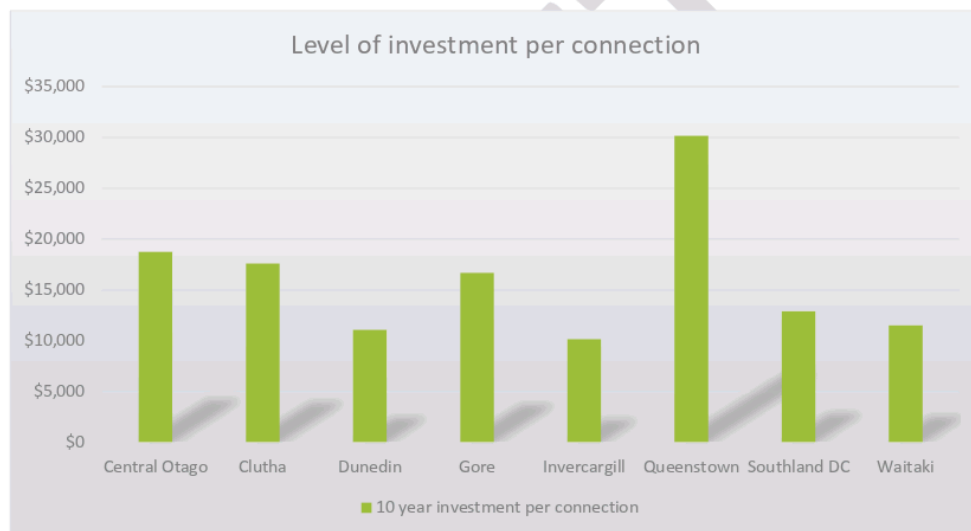


The unconstrained investment requirement is an estimate provided by councils in response to a request from the government through its RFI process. There are varying levels of planning which have fed into this figure, with some councils able to assign a cost to specific 'wish list' projects, while others have simply included a bulk allowance. In our experience, we would estimate the "true" unconstrained cost for most councils to be around 2 – 2.5 times larger than the constrained view. This aligns with the total position of the region.

The Morrison Low projection for Dunedin shows a higher level of investment being required than that outlined in Dunedin's unconstrained RFI investment plan. This largely reflects the potential renewals gap outlined in our analysis on page 16.

The absolute nature of the charts shown below can mask the impact on ratepayers of what for smaller councils appears to be a lower level of investment. When considered on a per capita basis this level of investment looks substantially larger for small councils, and this is highlighted in the chart below.

Figure 11 Projected ten year investment per connection



Queenstown is forecast to spend substantially more per connection on infrastructure in the next ten years than any of the other councils. This is driven by its high levels of projected expenditure to service growth, with 44% of its forecast expenditure being for the servicing of growth (Queenstown accounts for 66% of total forecast growth expenditure in the region).

On a per connection basis however, most councils are forecasting to invest a similar amount on infrastructure over the next ten years. In fact Gore, who have one of the lowest levels of projected investment in absolute terms, has the fourth highest level on a per connection basis.

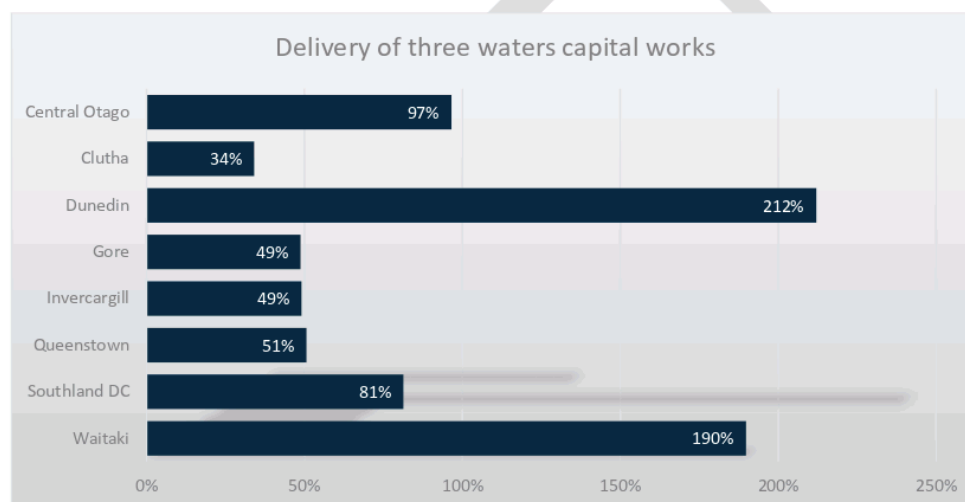


Capital works delivery

The ability to deliver on a capital works programme may have a significant impact on debt projections, rates and operational risk. As a sector, local government in New Zealand has historically been unable to deliver its full capital works budget. As most of the debt in local government relates to investment in capital assets, failure to deliver will likely result in lower than forecast debt levels and may have significant impacts on the levels of service received by ratepayers.

In our view there is a challenge to deliver the forecast infrastructure investment. The chart below shows that in 2020 most councils delivered less than 100% of their planned capital works programmes. This is not unusual across the country, in fact this is an issue frequently raised by the Office of the Auditor General, most recently in their review of 2019 annual reports¹⁶. However with planned infrastructure investment for the next ten years typically doubling previous long term plan budgets, the focus on delivery will become increasingly important.

Figure 12 Actual versus budgeted capital expenditure on three waters assets 2019/20



While councils across the region have typically been unable to deliver the full extent of their budgeted capital works programmes, most councils were able to deliver over 100% of their renewals' budgets in the 2020 year. Delivery of level of service/upgrades was lower than budget across all three waters. Some of this is a classification issue, with classification of investment between renewals, levels of service and growth being particularly difficult as often investment is driven by more than one factor.

While Covid-19 and the associated lockdowns may have had an impact on capital works delivery in 2020, we note that sustained under delivery is common across local government in New Zealand.

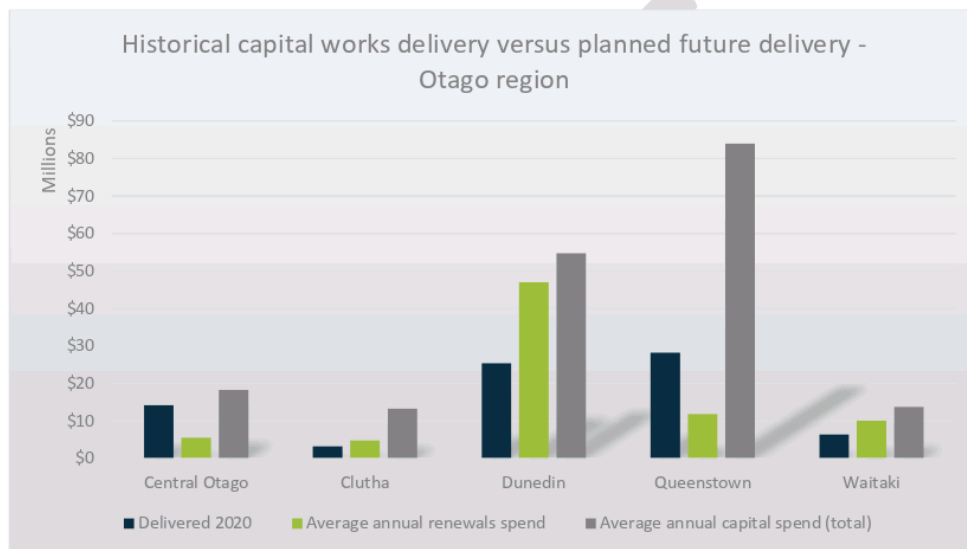
¹⁶ Office of the Auditor General (2020) *Insights into Local Government: 2019* (retrieved from <https://oag.parliament.nz/2020/local-govt/part1.htm> on 25 February 2021)



Comparing historical capital works delivery to the average annual investment outlined in councils RFI (using the constrained view) outlines the scale of the challenge ahead. If the Morrison Low, or unconstrained investment scenarios were adopted the challenge would be even worse.

For example, despite delivering over 200% of its budgeted capital works programme in 2020, Dunedin would need to deliver a further \$22 million of capital works (or an additional 85%) just to be able to deliver its average annual forecast renewals programme. Queenstown must increase the amount of three waters infrastructure that it delivers annually by over 250% in order to be able to deliver its forecast investment requirement.

Figure 13 Historical capital works delivery versus planned capital expenditure - Southland

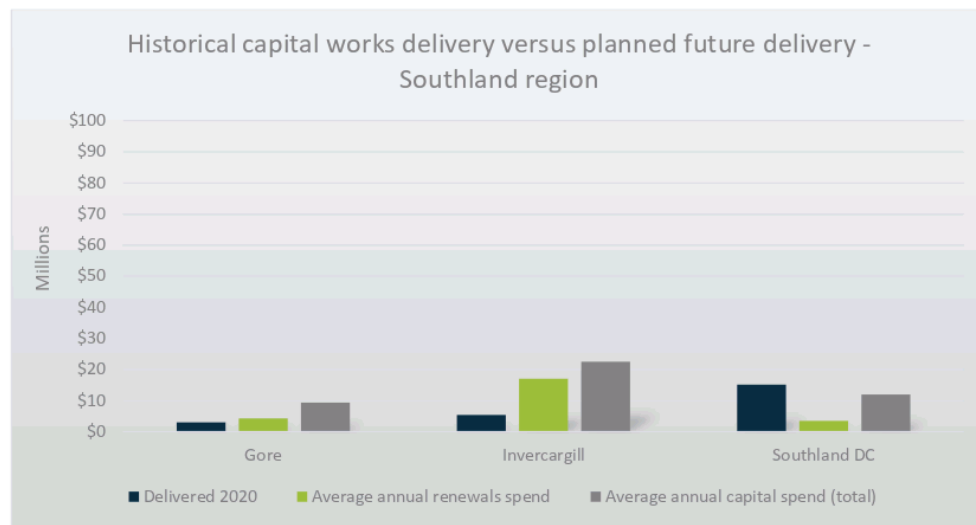


In its report Matters arising from our audits of the 2018-28 long term plans¹⁷ the Office of the Auditor General indicated an increase in planned capital expenditure between the 2015-25 and 2018-28 Long Term Plans of 31%. In that report it noted that achieving that level of increase would be challenging, the levels of increase suggest in the 2021 Long Term Plans/RFIs are of an even greater scale still.

¹⁷ Retrieved from <https://oag.parliament.nz/2019/ltps/part3.htm> on 22 February 2021



Figure 14 Historical capital works delivery versus planned capital expenditure - Southland



Invercargill would need to deliver more than three times the amount of capital works that it did in 2020 to achieve delivery of its average annual capital works programme. The scale of the delivery challenge across the region should not be understated.

Southland is an outlier here, with future average capital works programmes being lower than its 2020 delivery. Southland has the lowest forecast renewals programme over the next ten years, and the second lowest (Gore being the lowest) total planned capital works programme.



Financial position

One of the biggest challenges cited by the government, and the WICS report prepared for DIA, is the issue of long-term affordability of three water services. All councils in New Zealand are facing significant future investment requirements and increases in operating costs to be able to meet increasing regulatory standards and enforcement activities. The Situation Analysis and this current report demonstrate that Otago and Southland regions are facing those same challenges.

This section looks at these various financial challenges facing the combined regions.

The analysis shows a number of significant challenges facing the region of the next ten years, with large capital investment programmes likely to result in high levels of debt and increases in operating costs across all of the councils in the two regions. This is likely to create future affordability issues for water users and aligns with DIA's objectives for three water reform in general.

Projected revenue per water connection is forecast to increase by 123%, before inflation is accounted for, in order to service the debt, depreciation and increased operating costs for projected new investment. This assessment does not include any additional costs that may be required for the increased monitoring and compliance that will be brought about from the Water Services Bill when it is passed, or from the regulatory activity of Taumata Arowai and any future economic regulator.

In addition, debt is forecast to increase, on average, four-fold, under the most optimistic scenario. This will see the debt for the two regions combined increase to \$1.2 billion for three waters assets. Under scenarios prepared by Morrison Low, and the unconstrained investment outlined in the RFI, debt could increase to \$2.2 billion, or \$3.2 billion respectively.

Under the most optimistic investment scenario, only Dunedin, Invercargill and Waitaki have forecast three waters debt to three waters revenue that falls below the LGFA's debt to revenue lending covenant of 280%. While this is typically compared to total council revenue, borrowing to fund water assets for the remaining councils is dependent on revenue streams from elsewhere in these councils, and may constrain those councils from borrowing to invest in other services or activities.

Average household charge

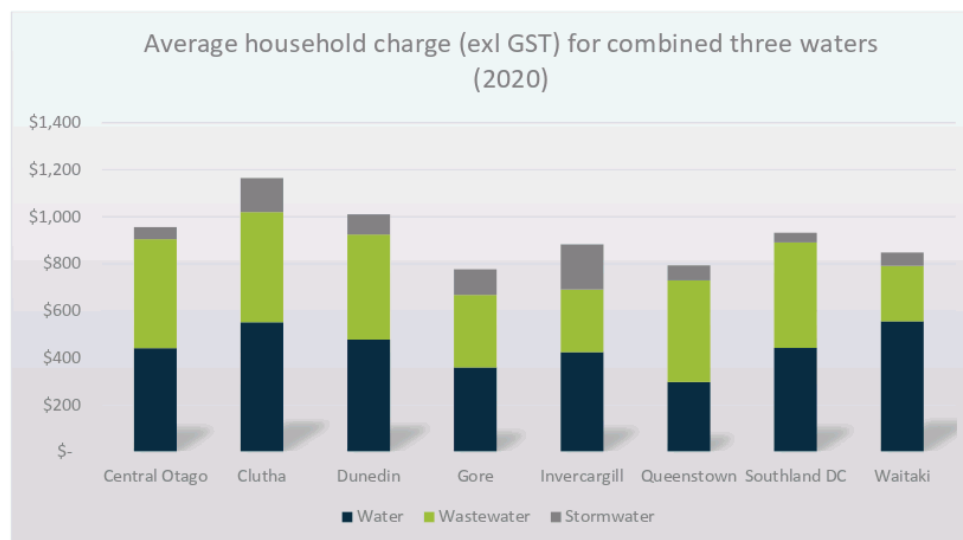
We note that there is significant variation in the ways in which each council charges for water, wastewater and stormwater services in their region, with a mix of fixed amount targeted rates, general rates, volumetric charging, and combined drainage charges existing across the region.

Our comparison of current charges looks at total revenue generated from households for each activity, divided by the number of households in each territorial authority area. This is not the same as an average rate but is presented as a high level comparison.

For comparison purposes, we note that the weighted average combined charge for the region would be \$924.



Figure 15 Average household charge for combined three waters activities in 2020



Clutha has the highest combined three waters charge, and the second highest drinking water average household charge, and this is likely reflective of its relatively low connection density and the high costs associated with providing services to rural communities. Similarly, Waitaki has the highest water charge, again reflective of its low connection density.

While dense urban areas often have lower charges than rural areas, this does not appear to be the case for Dunedin, which has the second highest combined three waters charge (and is in the top half across all of the three waters individually). While it is not explicitly clear what the key drivers for this are, it may be due to the topography of the city, the age of its networks, and the generally higher level of treatment of both water and wastewater compared to most of the rural councils.

Cost of treatment and distribution

Water

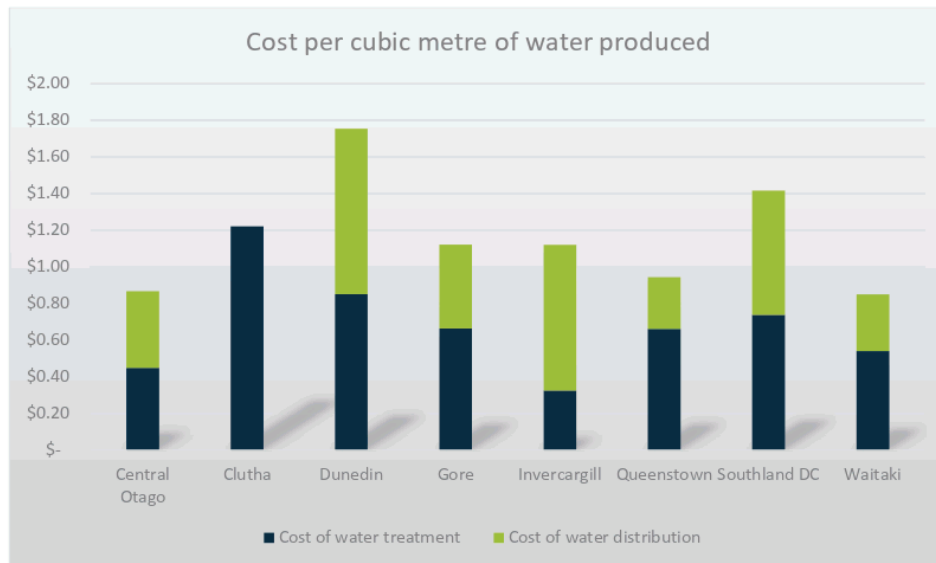
Another measure of cost of the provision of water services is to look at the cost of supplying a cubic metre of water. This is a helpful comparison as it is normalised for areas where consumption may be higher or lower than others (i.e. where residents are not metered, or areas which have regular water restrictions).

The cost of treating and supplying a cubic metre of water in Dunedin appears to be substantially higher than the cost of providing the same volume of water in other councils within the Otago-Southland regions. In fact, the cost of water distribution alone, is higher in Dunedin than the total cost of supplying a cubic metre of drinking water in either Central Otago or Waitaki.

In our experience, this is unusual as we would have expected rural areas with multiple schemes and lower connection density to have been more expensive. While the cause of this difference is not clear, it may be due to the relative age and condition of Dunedin's network, or a lower level of per capita water consumption.



Figure 16 Cost per cubic metre of water produced (2020)



For completeness, we note that the analysis above is based on RFI data, and the accuracy of the split of costs between treatment and distribution may vary. The total cost of supplying a cubic metre of water (i.e. the sum of the two stacked bars) is more reliable.

Wastewater

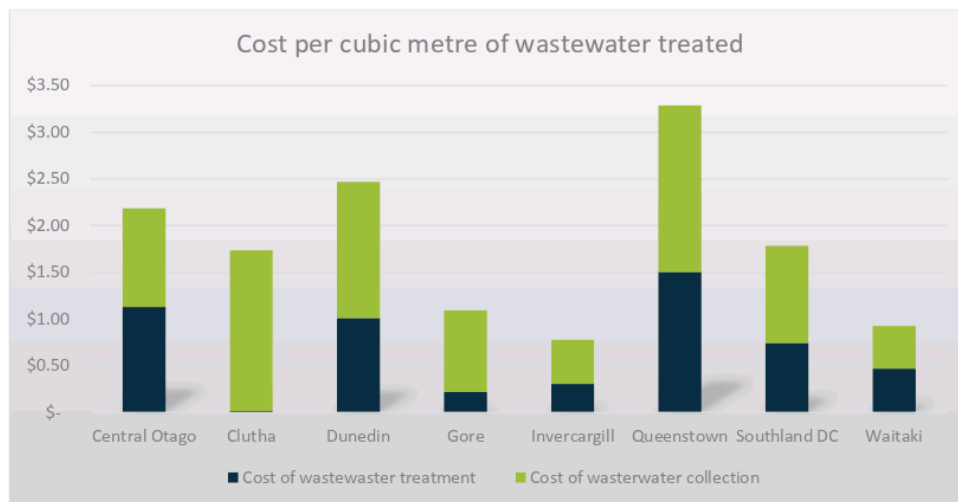
The cost of collecting and treating a cubic metre of wastewater is typically higher than the equivalent cost for drinking water, and this is observed for six of the eight councils in the Otago-Southland region. This is because the treatment of wastewater is often a more complex and costly process than the treatment of drinking water, and in addition, volumes of wastewater being treated are typically lower than the volumes of drinking water supplied.

In the cases of Invercargill and Gore, where costs of wastewater treatment are lower than drinking water, this is likely due to the comparatively high volumes of wastewater that is treated in those areas.

Queenstown and Dunedin have a large number of wastewater pump stations in their networks, which is likely to be driving the high unit cost of treating wastewater.



Figure 17 Cost per cubic metre of wastewater treated (2020)



Like for water, we note that the analysis above is based on RFI data, and the accuracy of the split of costs between treatment and distribution may vary. The total cost of supplying a cubic metre of water (i.e. the sum of the two stacked bars) is more reliable.

Cost coverage

Cost coverage is the proportion of revenue that has been collected by the councils compared to the total operating costs (including depreciation) for each of the three waters activities.

Councils are required, under the Local Government Act, to maintain a balanced budget, which means that they should collect enough revenue to cover their total operating costs (including depreciation), unless it is financially prudent not to do so. While this requirement exists at a whole of council level, it does not exist for individual activities. Generally speaking, a cost coverage of less than 100% would indicate that councils are not collecting enough revenue to meet their operating costs or to fund the maintenance and replacement of existing assets.

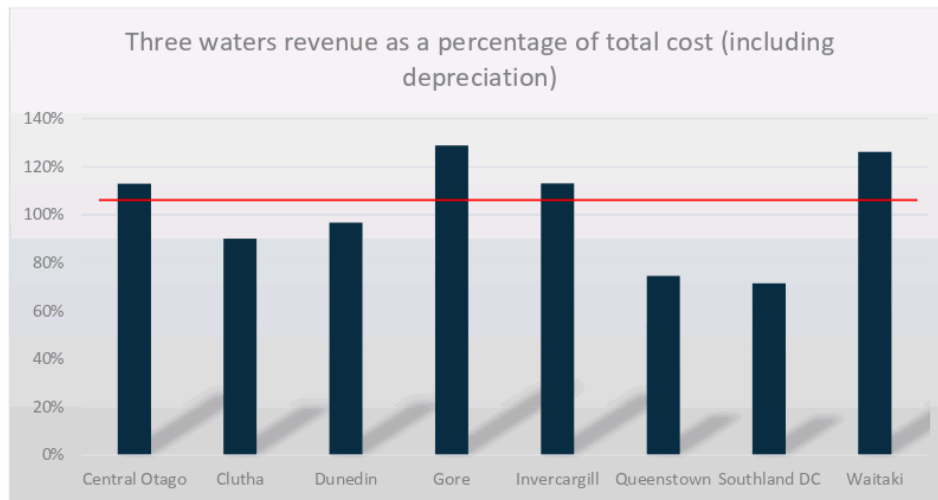
50%

of councils did not fully recover the costs of providing their three waters services in 2020

At a combined three waters level, half of the councils did not collect enough revenue from three waters activities to fully cover their total operating cost (including depreciation). While some of these council may have made a deliberate decision not to fully fund their depreciation cost, this creates potential future investment risk, as the council may not have developed sufficient reserves (or borrowing capacity) to fund future renewals costs. as discussed in the Renewals vs Depreciation section of this report.



Figure 18 Three waters revenue as a percentage of total cost (2020) – benchmark 100%



When the cost coverage for individual water activities is examined, there is a much greater level of variation between the councils. Revenue reaches as high as 245% of total operating costs including depreciation for Invercargill's stormwater activity, while it sits as low as 48% of total cost for Queenstown's stormwater activity. Reviewing cost coverage at this level may be unhelpful however, as there is often a large amount of shared resource between the water activities for which costs are likely to be allocated using different approaches.

Impact on operating costs

While the projected investment requirements for all of the councils in the regions are significant and will pose challenges for borrowing, delivery and affordability, the impact of increased operating costs will often be felt more directly by ratepayers.

WICS states in their report that the addition of a new asset will add approximately \$8 of additional operating costs (relating to the financing, depreciation, and operation) for every \$100 of new capital invested.

We have used this assumption to estimate the potential impact of the proposed investment in each council's RFI on their annual operating costs. We have then compared this to the assumed operating costs for three water services based on forecast revenue projections in the RFI¹⁸, our estimated costs and the unconstrained view for the RFIs.

150%

Increase in operating costs for Queenstown before inflation

¹⁸ RFIs did not include forecast operating costs for three waters services.



The table above shows the results of our analysis. It indicates:

- If planned investment proceeds, costs, and accordingly rates, for a number of councils are likely to increase substantially. Queenstown's costs are forecast to increase by over 150% in today's dollars, with the smallest increase in the region being a 19% increase in Dunedin (noting Dunedin's own forecasts have a 34% increase).
- Invercargill and Waitaki have not forecast any increase in costs outside of normal inflationary increases over the period (i.e. they have not allowed for additional depreciation or financing costs associated with their planned (constrained) investment programmes and forecast debt).
- Dunedin, Clutha, and Southland appear to have adequately forecast for the increased costs associated with their planned investment programme. In fact, Southland's forecast costs exceed our Morrison Low projection of operating costs as well.
- The remaining councils have forecast some increase in their costs associated with additional investment (or growth) however this is not typically of the scale that we have estimated

Table 4 Estimated future operating costs based on RFI data

	2021 Opex	2031 Opex (RFI)	Adjusted 2031	ML projection 2031	Unconstrained 2031
CODC	\$10.6m	\$13.3m	\$19.9m	\$27m	\$62.9m
CDC	\$8.8m	\$15m	\$15.1m	\$19.9m	\$30.7m
DCC	\$67m	\$89.5m	\$79.8m	\$107.5m	\$92.4m
GDC	\$4.9m	\$6.2m	\$9.1m	\$13m	\$23.2m
ICC	\$21.8m	\$18.6m	\$27.2m	\$43.1m	\$52.1m
QLDC	\$32.9m	\$69.6m	\$83.8m	\$110.8m	\$157.3m
SDC	\$12.9m	\$24m	\$19.9m	\$22.9m	\$51.3m
WDC	\$8.3m	\$8.6m	\$10.8m	\$28m	\$70.4m
Total	\$167.2m	\$244.7m	\$265.5m	\$372.1m	\$540.4m

With the possible exceptions of Dunedin and Southland, none of the councils appear to have budgeted for increased operating costs associated with new compliance, regulatory, or monitoring activities. Even for these councils the quantum of cost increase that we have observed is not of the scale experienced by Hastings District Council.

Revenue per connection

Revenue per connection has been used in this report as a proxy for the average price of water in each district. More detailed analysis will be completed in subsequent report which more specifically considers average household water rates.

While this is useful for demonstrating the direction of travel, or potential rates increases that the sector may face, this is not representative of the average household charge or rates.

Additionally, we note that the potential projections of revenue per connection are based solely off RFI data and are likely to understate the true picture because they:

- vary in the degree to which they incorporate additional potential operating costs for the delivery of three waters services which are not disclosed in the RFI (as shown previously)

123%

Average increase in revenue
per connection in 2031
before inflation



- have not been adjusted to include potential increases that Morrison Low anticipates may face the sector based on its experience in water reform and engagement with the sector (compliance costs)
- are aggregated at a district level, meaning there could be significant variation within a council which charges for water and wastewater at a community level
- do not allow for increased costs from the growth in the number of connected properties
- do not include any potential operating efficiencies (or increased costs) that may arise through structural reform of the delivery of three waters services in the combined regions.

Even without the above adjustments and considerations, there is a clear trajectory for water charges to increase to levels that are likely to create affordability challenges for some members of the community.

Figure 19 Projected (2031) revenue per connection in today's dollars – Otago region

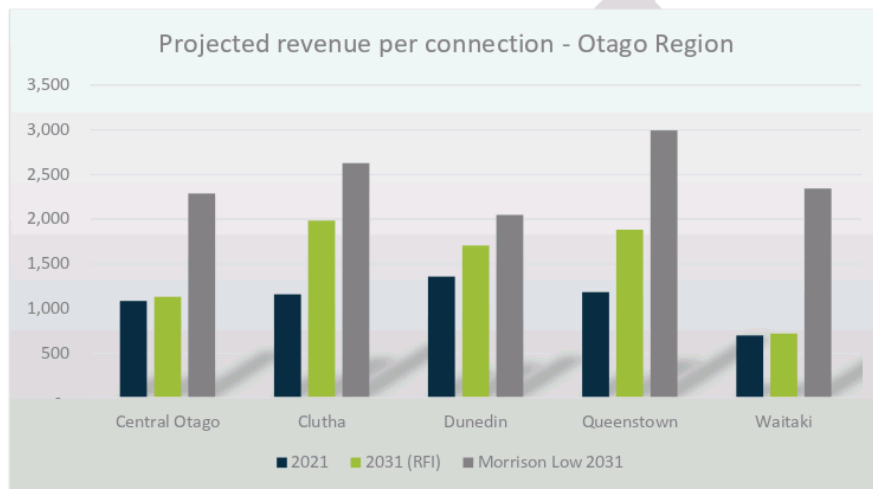
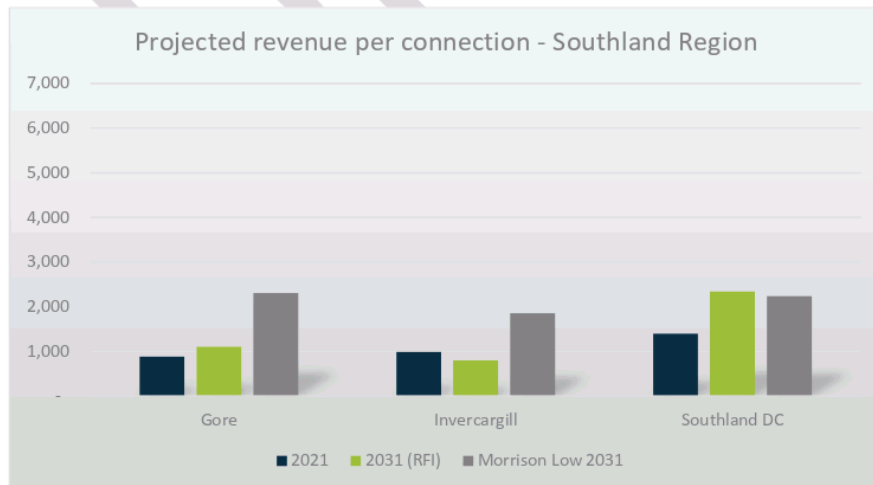


Figure 20 Projected (2031) revenue per connection in today's dollars – Southland region





Our projections show a potential doubling of the average revenue per connection for Central Otago, Clutha, Gore, and Queenstown, while the average charge per connection in Waitaki is likely to more than triple its current levels¹⁹. The four councils with the smallest populations in the combined region are included within this group, and this reinforces our earlier statements that small councils are typically hit harder.

Queenstown is the outlier of the group facing the largest increases to average revenue per connection. This is likely driven by the significant levels of growth expected in the region. We also note that Queenstown only collected enough revenue to cover 75% of its costs in 2020 which is reflected in our adjustments to revenue requirements (we have assumed 100% of costs will be covered).

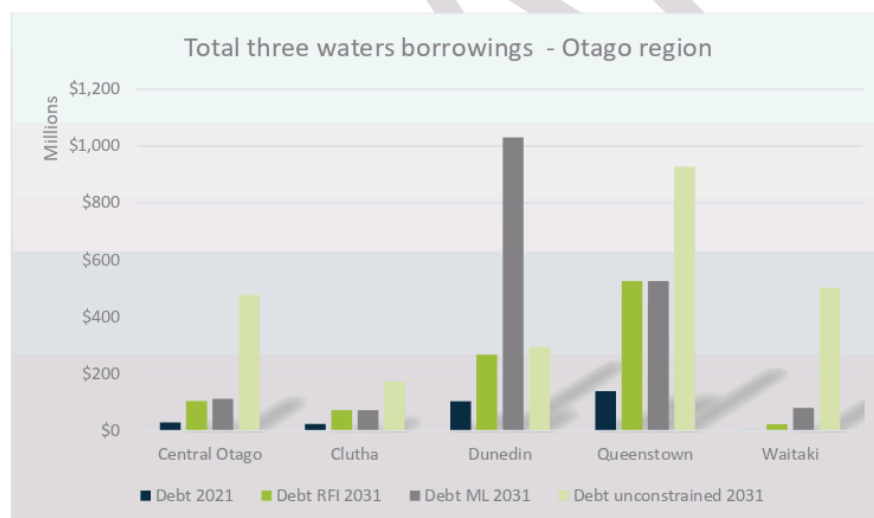
Dunedin faces the lowest forecast increase. This results in Dunedin moving from having the second highest average revenue per connection to having the second lowest under our forecasts, despite significant future investment requirements.

Debt

The scale of the capital investment required will need to be funded by debt unless third party funding is obtained. This is an entirely appropriate funding mechanism for three waters infrastructure. However, debt is also a significant driver of cost, with financing costs accounting for an increasing proportion of total operating cost as investment requirements grow.

The forecast debt position for each council for three waters, is outlined in the following charts.

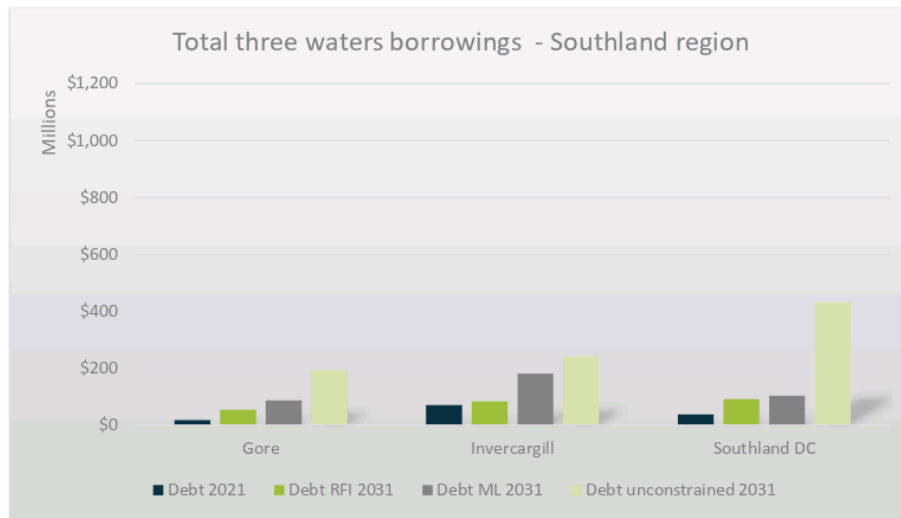
Figure 21 Total projected (2031) three waters borrowings – Otago region



¹⁹ Our projected revenue per connection has been reduced from the amount stated in our situation analysis, as a result of examining individual council projections in more detail. Our analysis now includes allocation of costs to individual councils and an allowance for growth in connection numbers.



Figure 22 Total projected (2031) three waters borrowings – Otago region



**On average,
debt
quadruples**

On average across the region, three waters debt is forecast to quadruple, with only Invercargill forecasting an increase in debt that is less than double the 2021 forecast. Under the Morrison Low and unconstrained forecasts, debt is projected to rise even further, with the total regional debt increasing from \$421 million in 2021 through to \$2.2 billion or \$3.2 billion respectively. It is worth repeating our earlier note that the unconstrained view included in the RFIs has a high degree of uncertainty in both timing and quantity, and should be considered indicative only.

While the absolute values are significant, it is often more useful to consider the size of the debt with the context of how much revenue each entity is able to generate. This measure, the debt to revenue ratio, is used by LGFA when setting lending covenant, as well as being used by councils when setting their debt affordability benchmarks. While that is at a whole of council level, the WICS report cites a debt to revenue ratio of 430% to be required to obtain a Baa/Ba rating from the direct rating agency Moody's. Three councils would breach this in 2031.

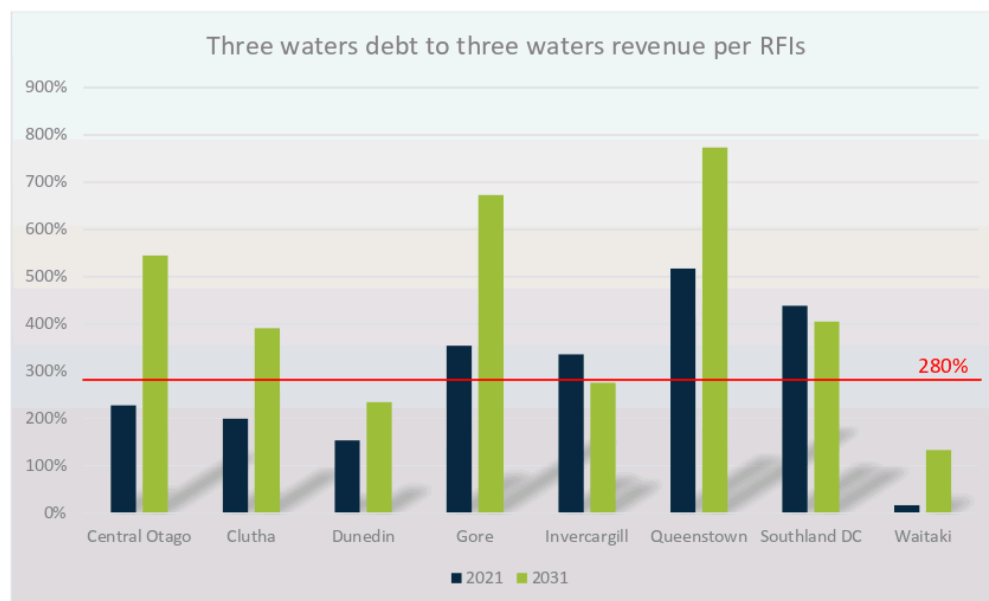
In our regional situation analysis, we compared three waters debt to three waters revenue and found that the region would breach LGFA's lending covenants under all of the forecast expenditure scenarios.

For the purposes of comparison we note that if three waters debt is compared to three waters revenue only, then only Dunedin, Invercargill and Waitaki would have a debt the revenue ratio below 280%²⁰ based on information in the RFIs.

²⁰ LGFA's debt to revenue covenant for lending



Figure 23 Three waters debt compared to three waters revenue

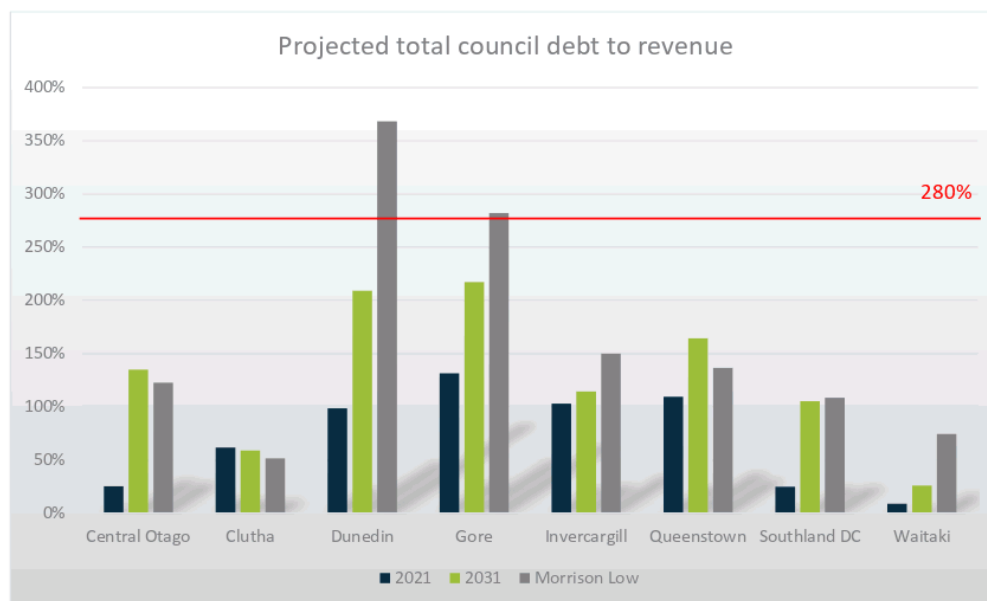


If LGFA's debt to revenue covenant of 280% remains in place, then the sustainability of three waters service provision and investment is dependent on the revenue of councils' non-water activities. This reliance on revenue from other activities creates risk, particularly where that other revenue is not generated from rates (for example where it is from fees and charges for building consents) and may be impacted by the external economic environment. It also introduces financial constraints for the non-water activities of a council, as three waters lending accounts for a disproportionate amount of a council's total borrowing capacity.

When total council debt is compared to total council revenue, two councils are projected to breach the LGFA thresholds of 280% in 2031 if their investment and water revenue is at the levels that Morrison Low has forecast. Both Dunedin and Gore would breach the LGFA limits under this measure if they retained three waters assets. The remaining councils would fall below the LGFA limits, however this would be on a substantially increased revenue base (per the section titled "revenue per connection").



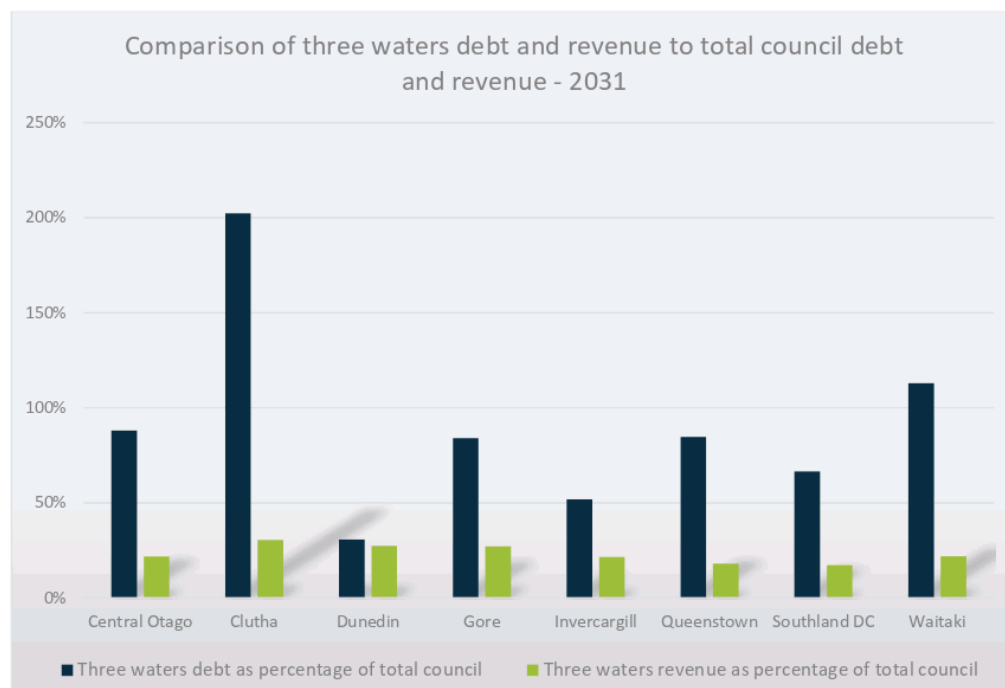
Figure 24 Debt to revenue projections (2021, 2031 per RFI, 2031 Morrison Low) at total council level



By 2031, three waters is forecast to account for a much greater proportion of total council borrowing than it is of total council revenue. This means that council borrowing is typically heavily constrained by the three waters activities which is likely to have impacts on each council's ability to borrow to fund investment elsewhere. The removal of three waters debt, and revenue, will in most cases result in an increase in borrowing capacity for councils, assuming that there is no change to lending covenant imposed by LGFA or other lenders. This is highlighted in the chart below.



Figure 25 Three waters contribution to total council revenue and total council debt



The chart shows substantial differences between total projected three waters borrowing and total projected three waters revenue as a percentage of the council totals. Five of the eight councils projected three waters debt to account for more than 80% of the external borrowings, while all councils show three waters debt accounting for a larger share of council totals than the revenue.

For completeness, we note projected debt typically includes internal borrowing between activities, so may be higher than the total external debt figures. In most cases, by 2031 most three waters debt is anticipated to be externally funded, however this is clearly unlikely to be the case for Waitaki or Clutha for whom three waters debt exceeds 100% of total borrowings. It is not possible to determine the exact share of total debt that is consumed by three waters in these cases without understanding the internal loan balances of every activity.



Levels of service measures

This section explores information regarding the source, treatment type and consent status of water and wastewater treatment plants in the Otago and Southland regions.

The analysis in this section highlights that the systems already have risk and levels of service that will drive investment. That investment will be required through legislation, increased regulation, and increased enforcement.

This section provides information that supports the previous analysis of investment needs. It highlights current and future compliance risks across the region that are likely to need significant investment to resolve.

Issues within the two regions mostly relate to current and future compliance to regulatory standards. There are 35 water treatment plants that combined supply 35% of the region's drinking water, which only provide simple disinfection (with or without filtration). Most of these plants do not meet the protozoa compliance measures in the Drinking Water Standards.

For wastewater, Central Otago, Clutha, Gore and Southland DC all have a large portion of their wastewater discharge into rivers. Of particular note, 54% of the wastewater in Clutha, and 27% of the wastewater in Central Otago is subject only to primary level treatment. It is highly likely that this level of treatment will not meet future freshwater standards, or cultural standards and expectations.

Gore has 40% of its sewer and stormwater network combined, this has led to a number of pollution incidents in the region and will require a high level of investment to remedy.

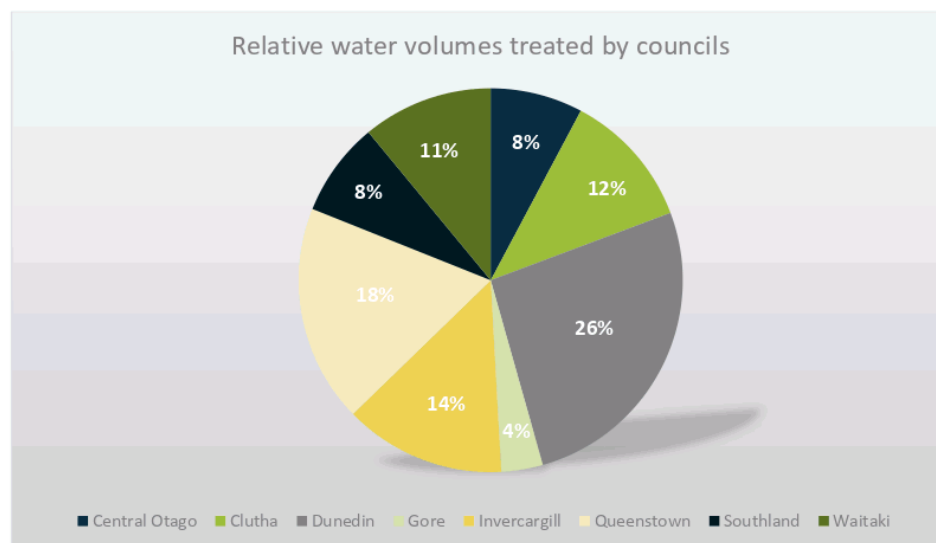
Stormwater issues are typically of less concern, but it is worth noting that Dunedin has over 11,000 properties that are considered at risk of flooding. The presumably relate mainly to the known flood prone area of South Dunedin.

Water supply

In line with expectations, the most populous councils in the region extract and treat the highest volumes of water. However, in the more rural districts, water use is not proportional to population numbers and is often high on a per capita basis, suggesting less being consumed by residential customers and more being used for commercial and other purposes.



Figure 26 Volume of water treated by councils as a percentage of regional total

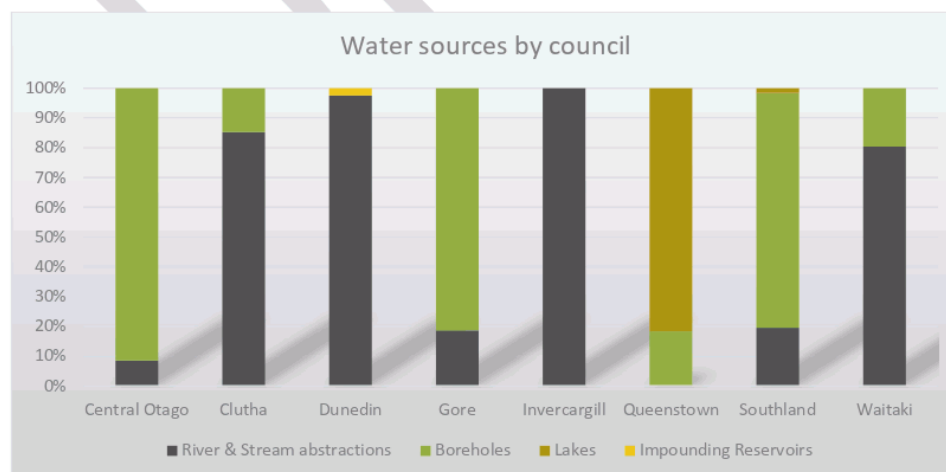


Water sources

This section looks at the reliance on different sources of water utilised across the region.

The breakdown of water sources across the region shows a heavy dependence on rivers, streams and boreholes, comprising 84% of the regions water supply (based on 2019/20 data). The ability to continue to access these water supplies beyond their current consents is a key consideration in resilience planning. Many Water Treatment Plants (WTPs) in the region are already able to draw from more than one water source, with 106 sources reported, feeding into 70 WTPs.

Figure 27 Percentage of water volume from different sources



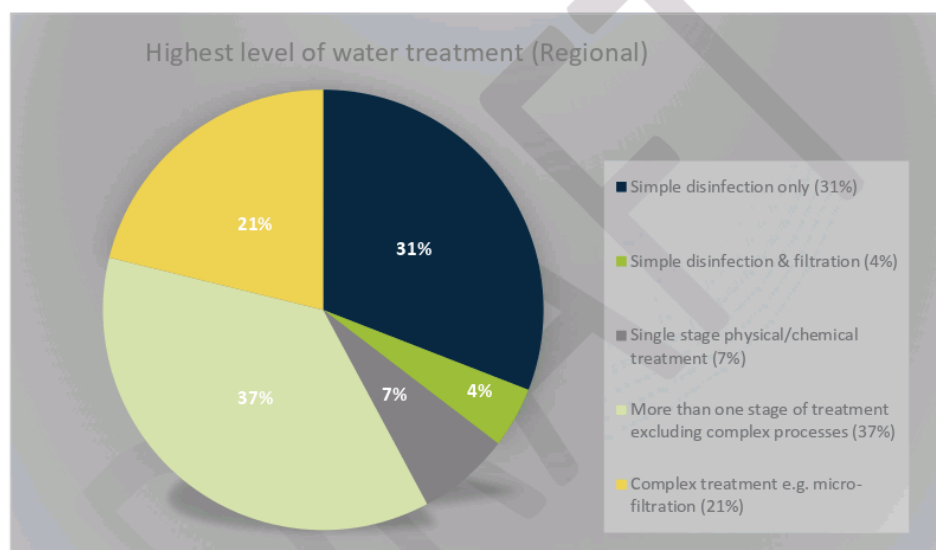


Most councils have at around 20% of their total water supply coming from a secondary source providing a minimum level of resilience, except for Central Otago, Dunedin and Invercargill, which are nearly totally supplied by a single source. In Central Otago and Dunedin there are multiple extraction points from the same source, however in Invercargill, the water supply is fed from a single abstraction point from a single source, creating a potential resilience risk.

Water Treatment

After abstraction from the environment, the raw water is treated to varying degrees across the region currently. The graph below shows the current highest level of treatment the raw water receives before being distributed to customers.

Figure 28 Percentage of total water volume by treatment level

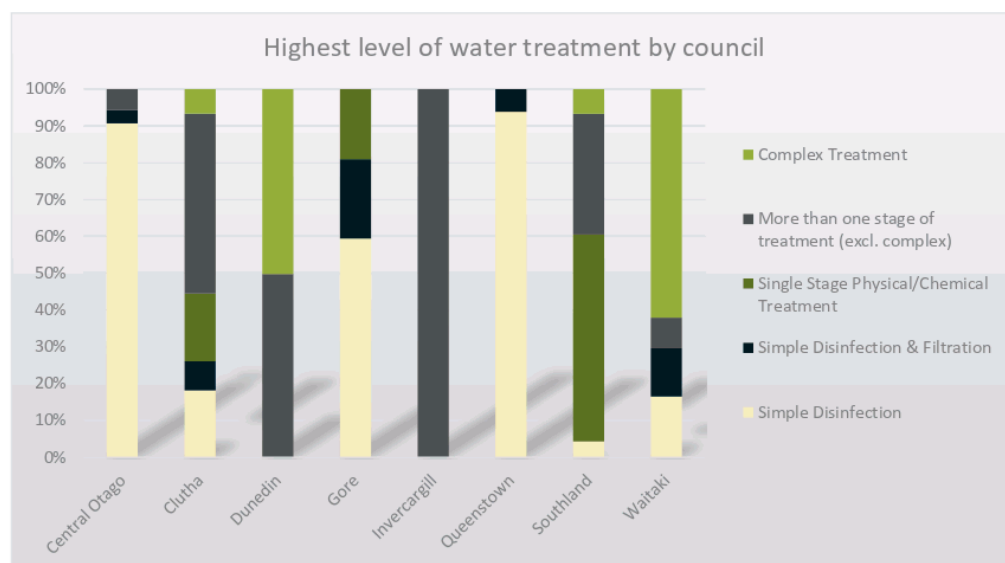


When this data is cross referenced against councils' annual reports, almost all the WTPs treating 35% of the regions' water to "Simple disinfection only" and "Simple disinfection and filtration" do not meet the protozoa requirements of the Drinking Water Standards. Nearly all WTPs are meeting the bacterial requirements of the Drinking Water Standards with only a few exceptions.

Currently only two councils (Dunedin and Invercargill) are fully compliant with the protozoa requirements, though Southland is also very close.



Figure 29 Breakdown of percentage of water volume by treatment level, per council



All councils with WTPs in the lower two treatment categories have plans to upgrade those within the current (2021/31) ten year LTP period. We note that over 80% of the drinking water supplied in Central Otago, Gore and Queenstown is supplied by plants in these treatment categories, meaning a large portion of those communities are currently being provided with water that may not meet protozoa requirement and present a health risk.

There are approximately 35 WTPs that provide only simple disinfection or simple disinfection with filtration across the region supplying water to customers, meaning a large number of plants are likely to require upgrades.

Regional risk will be from potential delays in these planned upgrades, escalation of upgrade costs, WTPs in these two categories without plans to be upgraded, and the higher operating costs of the upgraded plants. Data shows that most of the non-compliant plants are servicing smaller communities, these communities may face particularly large increases in water charges as the increased operating and capital costs are spread over a smaller base of ratepayers. This will particularly impact communities that are still charge water rates at a scheme level (rather than district).

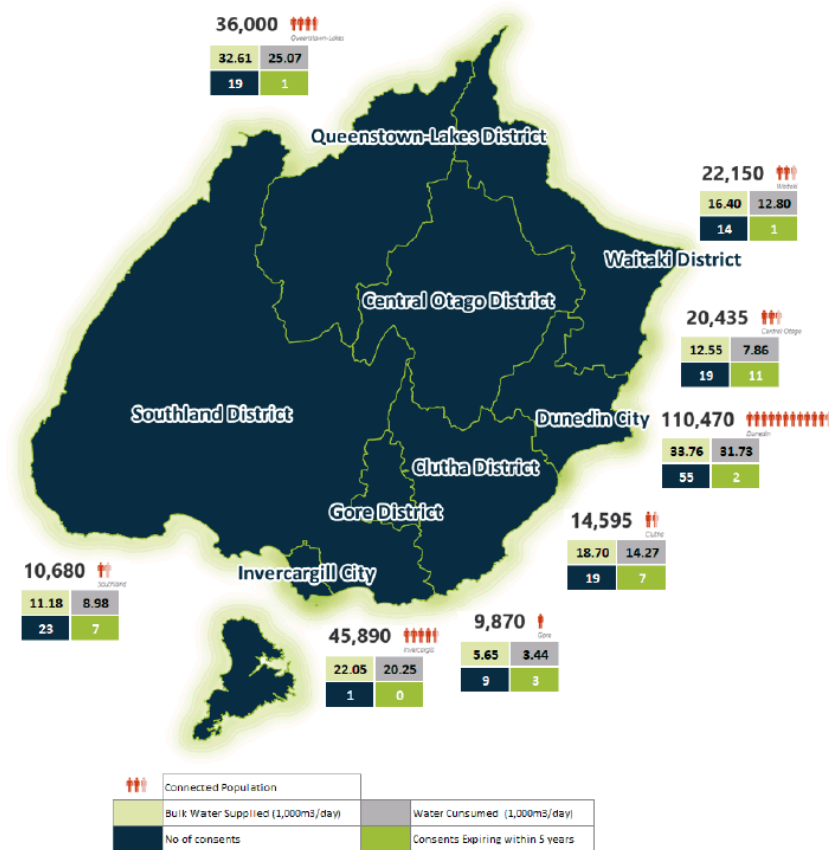
Almost 35% of total water supplied does not meet protozoa compliance



Water supplied and consumed

The following chart shows the volumes of water supplied and consumed across the two regions.

Figure 30 Water supply service key information



The data shows large differences in the volumes of water supplied and consumed in the larger urban councils when compared to the rural councils. For example, Dunedin City consumes approximately 31,730m³ of water per day to a population of over 110,000, which is just over double the amount consumed by Clutha despite a population almost seven times larger. A similar trend can be seen when looking at the other rural councils, with the exception of Gore, which is comparatively compact. Queenstown's water consumption is driven by tourism demand, which means average daily population is much higher than the resident population stated.

The region also has a total of 32 of consents for water take expiring in the next five years. This may impact investment requirements in the future. Central Otago is particularly affected by expiring consents with 11 of its 19 consents expiring within five years.



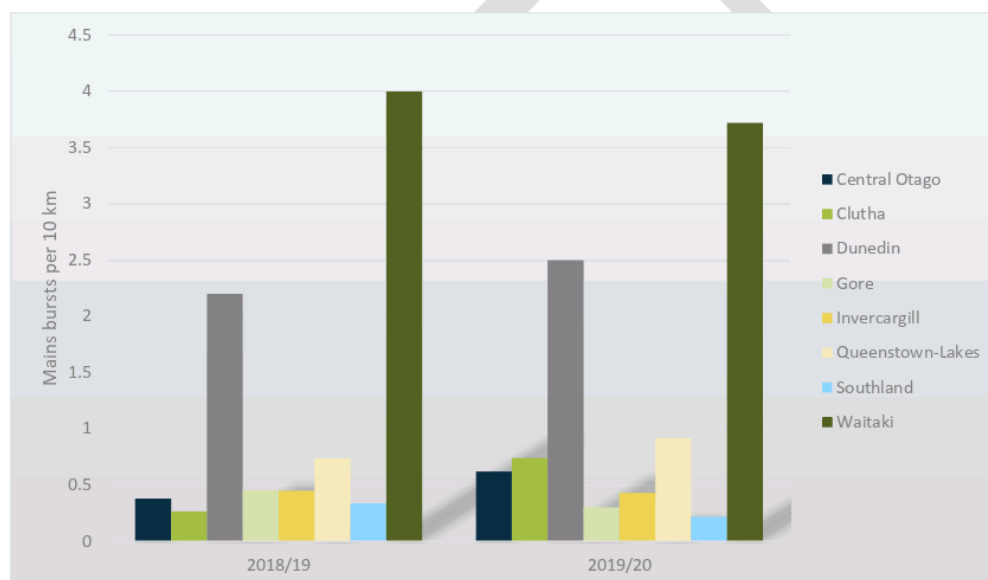
Pipe failures in the water network

The number of pipe main bursts per 10km reported by the Councils, in the first graph shown below, shows Waitaki and Dunedin have significantly more failures.

Although Waitaki has a small percentage (2%) of their mains with less than ten years of expected useful life, a large proportion of their network is polyethylene dating from the 1950s and 1960s, and the quality of early polyethylene pipes may be a factor. Further analysis would be needed to confirm this. Dunedin's network includes 34% within ten years of expected useful life, which aligns with the higher failure rate.

The correspondence between remaining useful life and failures is not apparent in the cases of Gore (28.4% with less than ten years left) and Invercargill (21.1%) with less breaks being reported than would be expected (possibly due to the influence of other factors such as operating pressure or rehabilitation practices). Gore's lower failure rate does align with the reported condition of their pipe assets, which is Very Good or Good, where condition is known.

Figure 31 Annual faults normalised by network length (all material types)



Performance and levels of service of the water network

The councils have varying levels of service and performance as can be seen from the measurements shown in the table below.

Reported leakage varies from 8.4% in Invercargill to 43% in Gore with the mean at 23%. Although most councils have a target between 20% and 30%. Except for Gore, these targets are being met. However, the target levels are high. A utility proactively pursuing leakage would typically be aiming for a leakage level of about 10%.



The percentage of population affected by water restrictions in the last two years also varies widely – between councils and from year to year. This measure can be very dependent on environmental conditions.

Clutha have annual summer water restrictions. Gore issue general advisory notices to entire district. Other councils have suffered from sporadic events - conserve water notices due to boil water and turbidity events (Central Otago), as a precaution due to fires in the Dunedin City and Waikouaiti source water catchments in November 2019, and operational issues for a short period in late 2018 in Waitaki.

Unplanned interruptions to supply has wide variability across the group, ranging from a minimal amount in Central Otago and Southland to almost 50 properties per 1000 in Waitaki. This aligns with the number of mains bursts presented earlier. Water quality is generally good with some exceptions. Clutha, Queenstown-Lakes and Waitaki report the highest number of issues.

Plants that fail to meet the protozoa requirements, and untreated supply present the greatest level of risk in the region, and these are generally dispersed across both regions.

Dunedin has 14 of the regions' 17 untreated water supplies, although it has no plants which do not meet the protozoa compliance criteria.

Table 5 Performance measures: water (19/20)

Performance Measurement	Central Otago	Clutha	Dunedin	Queenstown Lakes	Waitaki	Gore	Invercargill	Southland
Distribution input (1,000 m ³ /d)	11.53	18.70	42.73	32.61	16.40	5.65	22.05	11.18
Total leakage (1,000 m ³ /d)	3.38	4.27	11.00	4.49	3.60	2.43	1.85	2.20
Percent Leakage	29.3%	22.8%	25.7%	13.8%	22.0%	43.0%	8.4%	19.7%
% population affected by water restrictions (mean of last 2 years)	19.1%	100.0%	49.5%	0.0%	36.0%	100.0%	0.0%	0.0%
Unplanned interruptions per 1000 properties	0.008	0.236	7.652	4.660	49.839	2.842	4.584	0.009
Number of samples that exceeded the compliance value for faecal coliforms	0	39	0	0	11	0	0	0
Number of WTPs not meeting parasitic protozoa compliance criteria in DWSNZ	7	14	0	14	6	4	0	3
Number of untreated supplies	0	0	14	0	3	0	0	0

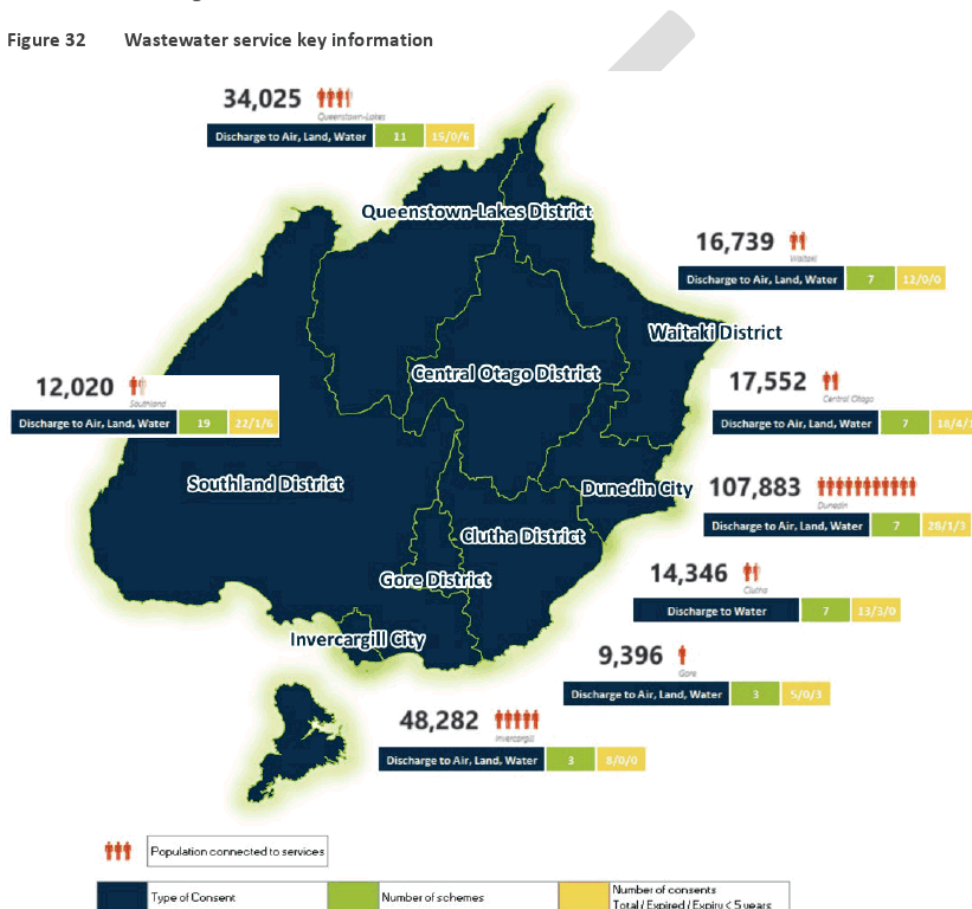


Wastewater

Consents are required for the discharge of treated wastewater effluent into waterways and onto land, as well as odour arising from the operation of treatment plants. For the wastewater activity particularly, the resource consent application process can be both lengthy and costly. In addition, as often a significant amount of time may have passed between consents, new resource consents for wastewater treatment are often coupled with stricter regulations which reflect changing expectations.

Consents that are expiring soon, or have already expired, are therefore an indication of potential investment needs and the timing of those costs.

Figure 32 Wastewater service key information



Several councils list consents expired or expiring in the next five years. Notable amongst the expired consents is that of Clutha, with three wastewater consents already expired. Both Queenstown and Southland have six consents that will expire within the next five years.



Clutha also has a consent to discharge untreated wastewater mixed with stormwater to the Tokomairiro River stormwater from the Milton Sewage Treatment Plant during heavy rainfall events. This is the only consent for the discharge of untreated wastewater in the Otago and Southland regions.

Some communities are not currently served by sewerage schemes. These include Clyde, Central Otago (scheme in progress).

It is unclear how any new regulations or standards will be imposed on plants that already have a discharge consent.

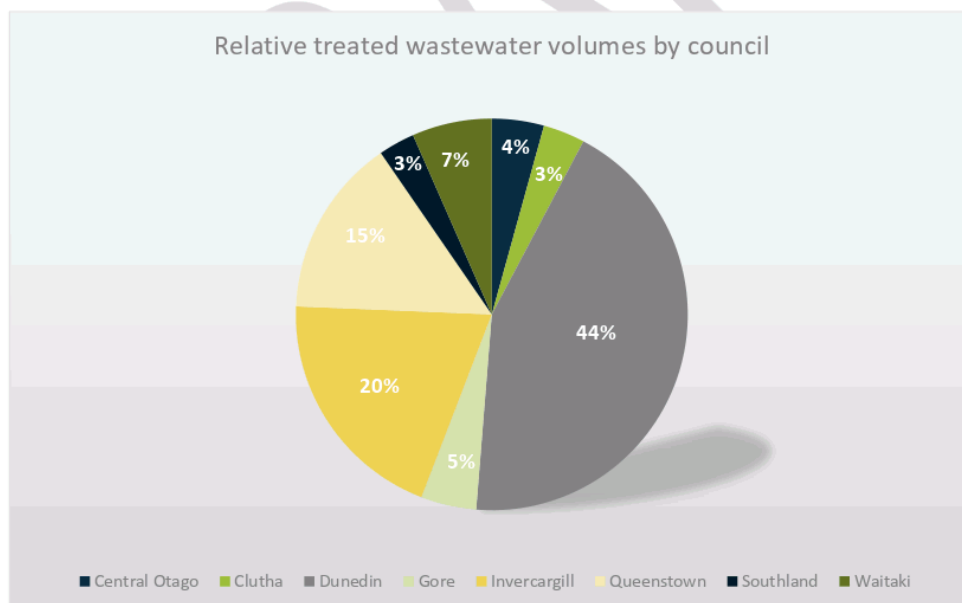
Wastewater collection

Relative to the population sizes, the figure below shows the more populous areas are treating more wastewater by volume (and load) per capita than the more rural councils. This is the reverse of the water supply graph, meaning the more rural councils are typically both supplying more water and treating less wastewater per capita than the more densely populated councils.

This could be for one of two reasons:

- More water used for irrigation and other commercial uses that do not generate wastewater.
- It is possible that the source information used for these graphs does not full account for private septic tanks. A small number of council-owned septic tanks were reported, but not necessarily those that are the responsibility of the homeowner. This could explain the low wastewater volumes seen in rural areas.

Figure 33 Wastewater volume per council as a percentage of a total for the regions



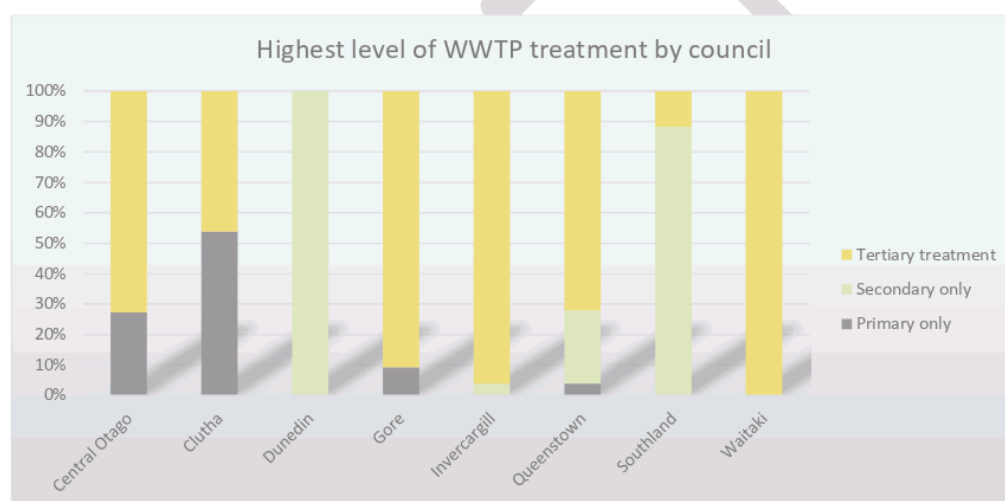


Wastewater Treatment

While future discharge standards are not fully known at this stage, there is recognition within the sector that increasing standards are inevitable. In addition, an increasing focus in recent years on the cultural significance of water, including the embedding of *Te Mana o te Wai* within the establishment of Taumata Arowai, means that discharges to freshwater particularly are becoming less acceptable (even with tertiary treatment). It would be reasonable to expect that the *Primary Only* treatment facilities are not going to meet any new discharge standards that may be developed. Though they are low in volume (4%) these WWTPs are spread over four council areas and provide over half the treatment capacity available in Clutha. Should *Tertiary* treatment be required throughout, significant works would be required in Dunedin and Southland as well.

From the information collected for this report, it appears that Central Otago and Clutha have three Primary Only WWTPs each that are discharging to rivers. Should *Secondary Only* WWTPs also not meet the standards for discharging into rivers, this would potentially affect a further nine WWTPs in Southland.

Figure 34 Percentage of wastewater subject to different levels of treatment per council



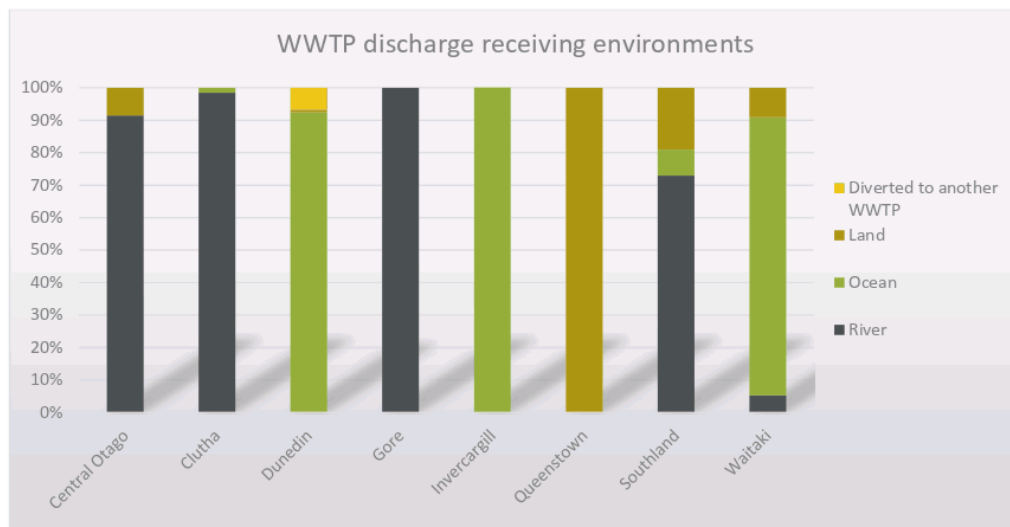
In total, 70% of the regions' total treated effluent is discharged to the ocean, 16% to rivers and 14% to land disposal systems. Over 96% of wastewater receives secondary treatment or better before being discharged to the environment.

However, the average compliance of the WWTPs with primary treatment only seems very low. There are 13 schemes receiving primary treatment only across the region, though the total volume through these schemes is only 3% of the total wastewater volume which means that there may be significant future investment associated with the treatment of a very small portion of total wastewater.

Note there is also a very small percentage of septic tanks in use throughout the region, with three schemes accounting for approximately 0.03% of the treated loads.



Figure 35 Percentage of wastewater volume discharge to different receiving environments per council



Discharges to the ocean dominates the region by volume, mainly due to the combined size of Dunedin and Invercargill. However there are significantly more WWTP facilities discharging to rivers (33 out of a total of 61 WWTPs in the combined regions discharge to a river, while only 8 discharge to the ocean).

While the scale of investment required to meet these changing standards is difficult to estimate, in a report commissioned by DIA in December 2019, GHD and Boffa Miskell²¹ estimated a combined investment for the regions of \$510 – 770 million would be required, with an annual operating cost impact of approximately \$23.4 – 35 million. These estimates relate to a total of 38 wastewater treatment plants in the combined regions and have been included within the Morrison Low estimates of future investment need.

**Up to \$770 million
to upgrade 62% of
wastewater
treatment plants**

Performance and levels of service

The councils show significant variance in the different measures of performance – blockages, compliance, flooding and pollution events.

Wastewater blockages are generally at or better than the national average. The higher number for Gore and Invercargill may be reflective of the large proportion of earthenware pipes in these networks.

Gore's high number of pollution events is due to approximately 40 % of the network being combined. One incident resulted in an abatement notice being issued. Gore considers that resolving this issue is possibly the most significant three waters issue facing the council.

The number of non-compliant wastewater treatment plants presents a particular risk, and we note that Clutha has received a high level of public scrutiny and media attention in relation to its plants recently.

²¹ GHD and Boffa Miskell – *Addendum Cost estimates for upgrading wastewater treatment plants* December 2019



Table 6 Wastewater performance measures (2019/20)

Performance Measurement	Central Otago	Clutha	Dunedin	Queenstown Lakes	Waitaki	Gore	Invercargill	Southland
Equivalent population served (resident)	17,552	14,346	107,883	9,396	48,282	34,025	12,020	16,739
Blockages per 10 km	1.353	2.592	1.4	0.011	0.4	3.475	3.122	1.95
Discharge permit compliance	28.5%	40.0%	33.0%	50.0%	61.5%	50.0%	100.0%	85.5%
Total number of non-compliant wastewater treatment plants failing to comply with any of the specified parameters in the licence	2	11	4	3	5	3	0	0
Total number of wastewater treatment plants subject to improvement works	2	3	0	0	0	2	0	0
Total number of Combined Sewer Overflow and stormwater systems subject to improvement works	0	0	4	0	0	2	0	0
Serious pollution incidents	0	5	47	0	0	100	0	0

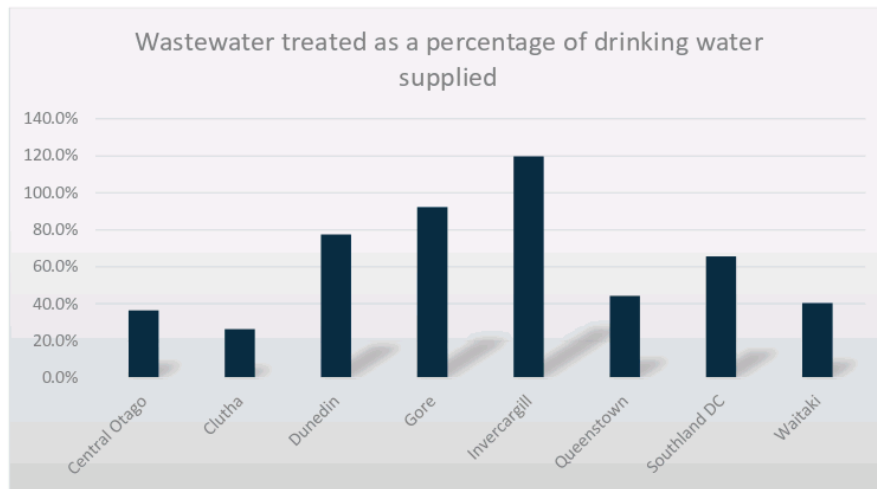
Water and wastewater volume balance

The chart below shows the comparative volumes of water supplied and wastewater treated for each of the councils. While we would expect there to be some relationship between these two measures for a variety of reasons, we do not expect this metric to be 100%.

All outdoor water use and leakage in the water distribution systems becomes water not returned to the wastewater network. On the wastewater side, all systems are impacted to some extent by inflow and infiltration of stormwater during rain events which can reflect both the condition of the wastewater network and how much rainfall was experienced in the catchment during the sample period. Also, in rural areas, the population connected to the water supply and the population connected to the wastewater system, may not be the same. For these reasons, a wide range of percentages is expected but further investigation of the extreme highs and lows can be beneficial.



Figure 36 Wastewater treated as a percentage of water supplied per council



It is worth noting that Invercargill appears to be treating more wastewater by volume than the water supplied. There is a slightly larger population connected to the wastewater system (85%) compared to the water supply (80%) but that is not sufficient to explain the difference. At 120%, it is a percentage large enough to warrant further investigation to confirm or rule out inflow and infiltration from poor pipe condition as a cause.

Clutha and Central Otago have a very low percentage of wastewater compared to water supplied, which may be due to significant volumes of treated water being used in agriculture, or it may be due to poor pipe condition causing excessive leakage on the water side, or exfiltration on the wastewater network. Again, this graph highlights that further investigation into why these percentages are so low would be helpful.

Stormwater

Performance and levels of service

Various performance measures of the councils' stormwater service are displayed in the table below.

Of note is Dunedin's number of properties at risk, and the presence of serious pollution events in Dunedin, Gore and Southland.

Dunedin's properties at risk were identified by modelling, and relate to land parcels, not necessarily habitable floors. It is unclear from the data provided whether this largely relates to the known problem area of South Dunedin.

Dunedin's pollution event related to a discharge to an aquatic environment, Gore's to a sediment discharge that resulted in an abatement notice being issued, and Southland's incident reported for year ending 30/06/20 related to a cross contamination of wastewater pipes to stormwater discharge (Te Anau) and resulted in issue of a written warning.

**11,735
properties at
risk of flooding
in Dunedin**



The number of stormwater collapses is relatively low. There is some correspondence between the numbers of collapses and the age and condition, where known, of networks with Clutha, Invercargill and Dunedin recording the highest values of collapses. These three councils also have the highest proportion of pipes with less than ten years remaining life.

Figure 37 Stormwater performance measures

Performance Measurement	Central Otago	Clutha	Dunedin	Queenstown-Lakes	Waitaki	Gore	Invercargill	Southland
Stormwater sewer collapses per 10 km	0	0.539	0.390	0	0.17	0.168	0.481	0.000
Number of properties with habitable floor(s) flooded in the year - Overloaded Stormwater Systems	0	6	0	0	0	0	1	0
Number of properties with habitable floor(s) flooded in the year - Other causes	0	2	0	0	0	0	2	0
Total at risk	0	6	11,735	0	0	126	22	0
Areas flooded externally in the year (overloaded stormwater systems)	225	94	1	9	0	5	0	2
Areas flooded externally in the year (other causes)	11	28	15	12	0	10	9	20
Serious pollution incidents	0	0	1	0	0	1	0	1



People and capability

Human resources information for the delivery of three waters services at each council has been provided.

A summary of the Council staff involved for each territorial authority is shown below. The organisational structures are shown at a high level to show the relationship between the three waters' team(s) and the other infrastructure services. Support functions such as finance, human resources, planning, information technology and customer services are not shown. A key to the charts is shown below.



This section highlights the differences in which each council delivers three waters services, both in terms of internal structure, which varies from having a dedicated three waters team to having shared infrastructure resource, as well as the extent to which services are outsourced.

One of the key findings of the review is the extent of the capacity challenges across the region. There are 32 vacancies across the two regions, with only Gore not disclosing any vacancies in their three waters team. In many cases, in addition to having a large number of current vacancies across the two regions, councils are also seeking to increase the size of their overall resource.

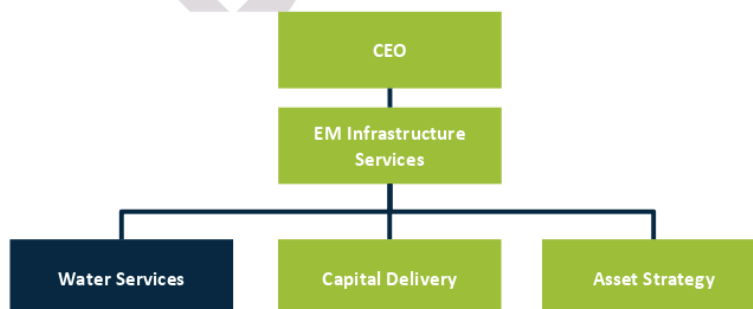
Competition between neighbouring councils for this resource will create ongoing issues for recruitment and retention, particularly within an industry which is often referred to as having a skills shortage.

Central Otago District Council

In Central Otago, all three waters services are delivered through the Infrastructure Services Group. There is a dedicated Water Services team as well as a shared Capital Delivery team and an Asset Strategy team with other council assets. There are five other FTE shared across water and other assets.

Currently there are two fulltime FTE and five vacancies in the Water Services team.

Figure 38 Central Otago District Council three waters team structure



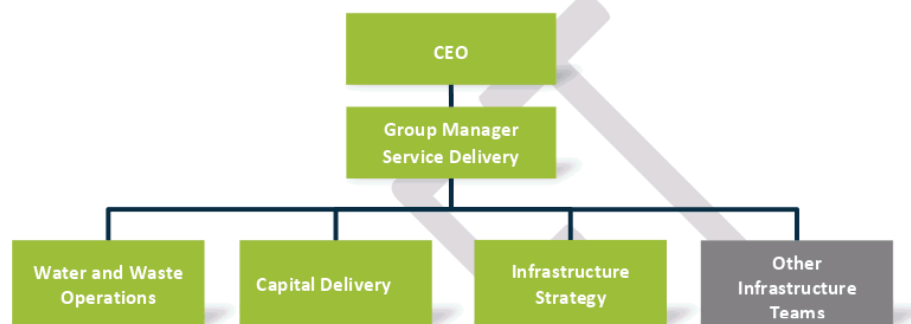


Clutha District Council

Clutha has a Service Delivery Department that looks after all Infrastructure. There is a Water and Waste Operations team including two dedicated water roles. Infrastructure Strategy and Capital Delivery teams are shared with other council assets. There are 14 FTE shared across water and other assets including the Group Manager Service Delivery.

Clutha currently has four vacancies in its water and waste operations team.

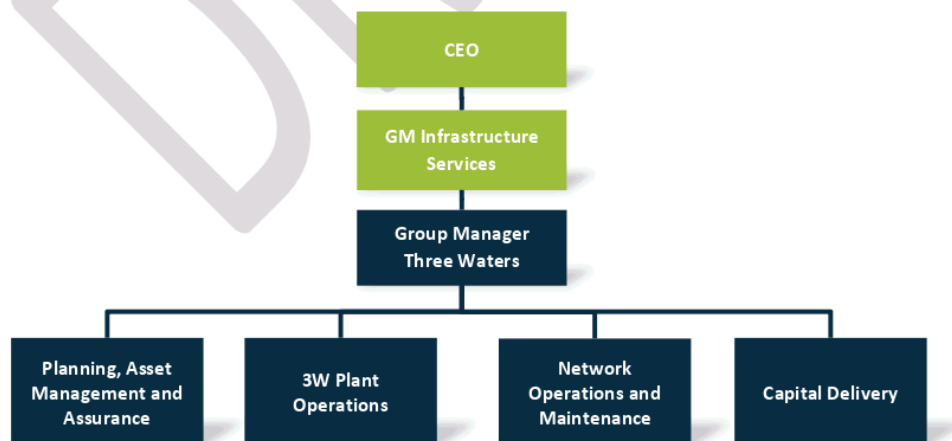
Figure 39 Clutha District Council three waters team structure



Dunedin City Council

Dunedin's structure is delineated by asset class with one three waters team covering planning, asset management and assurance as well as capital delivery and operations. There is less overlap with other infrastructure than most of the other councils. There are 103 FTE across water including the Group Manager. An additional nine roles are vacant.

Figure 40 Dunedin City Council three waters team structure

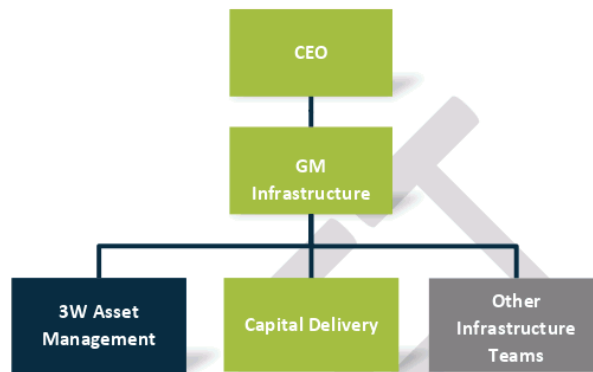




Gore District Council

Gore has an Infrastructure group that looks after three waters as well as other assets. There is a dedicated three waters team with 14 FTE including the Three Waters Manager. The GM Infrastructure and Project Manager of Major Capital Projects are equivalent to one more FTE but also work on other council assets.

Figure 41 Gore District Council three waters team structure

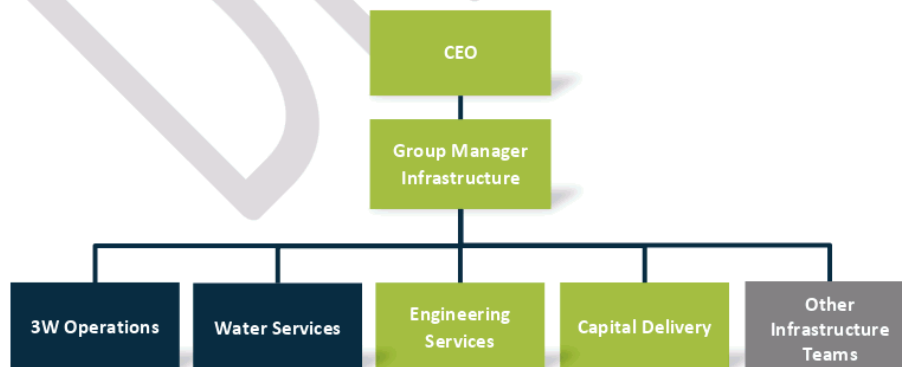


Invercargill City Council

Invercargill has an Infrastructure group that looks after all assets. There is a three waters Operations team and a Water Services team. The Engineering Services and Capital Delivery teams are shared with other council assets. There are 28 FTE working on water across the group.

The infrastructure group currently has six vacant roles.

Figure 42 Invercargill City Council three waters team structure



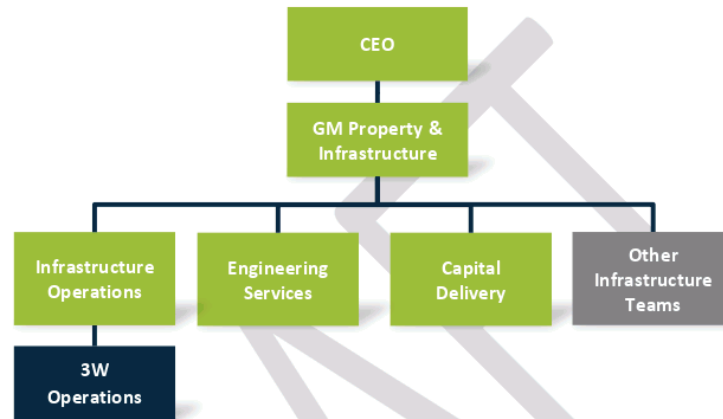


Queenstown Lakes District Council

Queenstown has a Property and Infrastructure group that looks after all assets. There is a small three waters operations team within the Infrastructure Operations team. The Engineering Services and Capital Delivery teams are shared with other council assets. There are 20 FTE working on water across the group with four new roles proposed following LTP consultation.

Queenstown has three current vacancies in three waters.

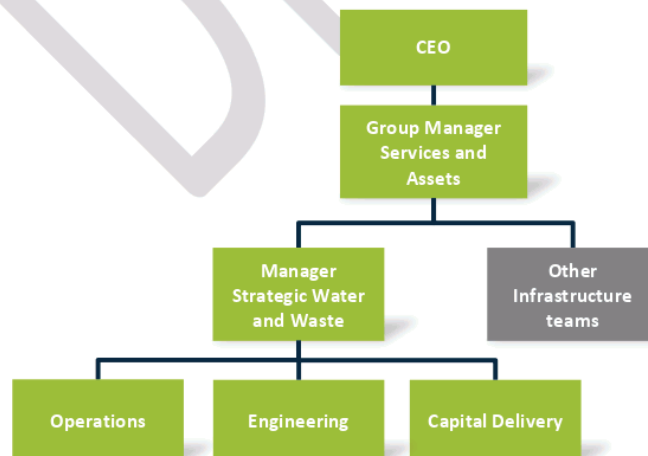
Figure 43 Queenstown Lakes District Council three waters team structure



Southland District Council

Southland has a Services and Assets group that includes a Strategic Water and Waste team. Within this team are Asset Management, Engineering Services and Capital Delivery resources. There are 13 FTE working on water in this team with two current vacancies.

Figure 44 Southland District Council three waters team structure



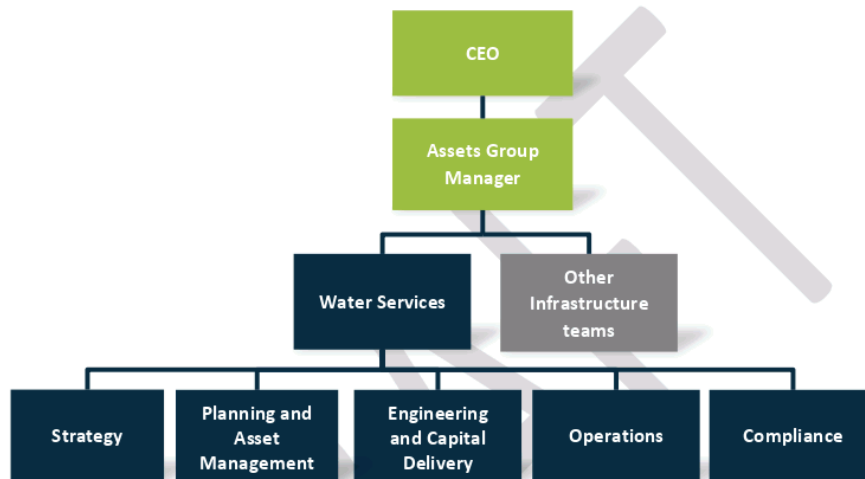


Waitaki District Council

Waitaki has an Assets group that includes a Water Services team. Within this team are dedicated Three Waters Strategy, Planning, Asset Management, Engineering, Capital Delivery, Operations and Compliance resources. There are 14 FTE working on water in this team with eight new roles proposed in the next two years following LTP consultation.

There are three current vacancies in Waitaki's water services team.

Figure 45 Waitaki District Council three waters team structure



Relative scale of the three waters service

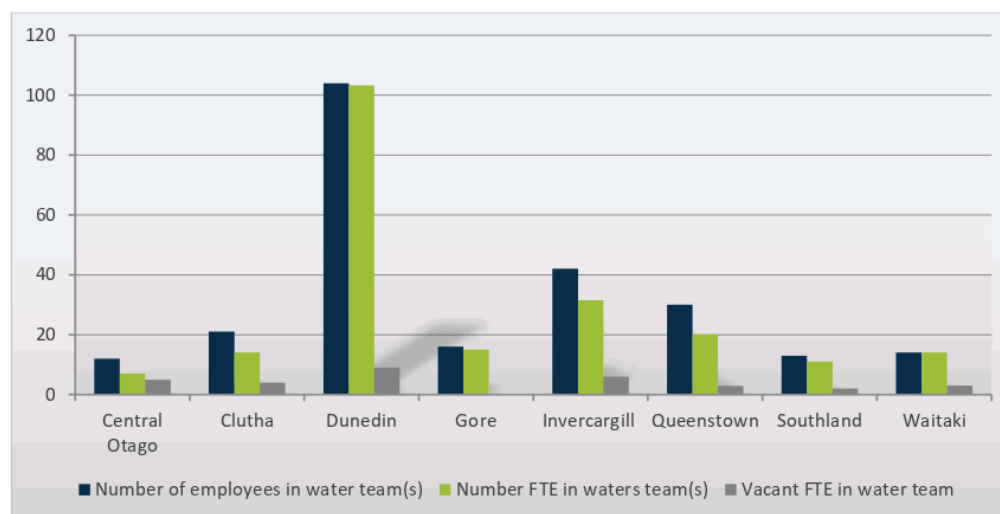
The number of employees directly involved in delivering water services varies from less than 17 in Central Otago, Gore, Southland and Waitaki through to 103 at Dunedin. This represents both the size of each council's three waters network, and the service delivery model utilised at each council. The number of full-time equivalent staff (FTEs) involved in the three waters delivery is generally lower than the number of employees as some employees work across a number of different council assets, not only three waters.

All councils except Gore have current vacancies and some councils have proposed new roles that they are consulting on for the next LTP. There is a total of 32 vacancies across the two regions.

These figures exclude management and corporate support roles that are shared with other council areas. All three waters teams make use of centralised finance, human resources, information technology and customer services teams. Customer services is an important support function for three waters provision, with 24-hour contact centres necessary to allow rapid response to high priority incidents.



Figure 46 Number of employees and full-time-equivalent employees in each council's water team(s) and vacancies



Service delivery models

The different service delivery models are illustrated in the tables below.

Table 7 Internal delivery of three waters services – Otago

	Central Otago	Clutha	Dunedin	Gore	Invercargill	Queenstown	Southland	Waitaki
Asset Management	Across all assets	Across all assets	Three Waters	Three Waters	Across all assets	Across all assets	Three Waters	Three Waters
Capital projects	Across all assets	Across all assets	Three Waters	Across all assets	Across all assets	Across all assets	Three Waters	Three Waters
Operations delivery	Three Waters	Three Waters	Three Waters	Three Waters	Three Waters	Across all assets	Three Waters	Three Waters

Table 8 Extent of in-house delivery and outsourcing for three waters - Otago

	Central Otago	Clutha	Dunedin	Gore	Invercargill	Queenstown	Southland	Waitaki
Reticulation O&M	Outsourced	Outsourced	In-house *	In-house *	Outsourced	Outsourced	Outsourced	Outsourced
Treatment O&M	Outsourced	Outsourced	In-house *	In-house *	In-house *	Outsourced	Outsourced	Outsourced
Professional Services	Outsourced	Outsourced	Outsourced ^A	Outsourced	In-house *	Outsourced ^A	In-house *	In-house *

*with specialist contract support

^Awith programme management in house



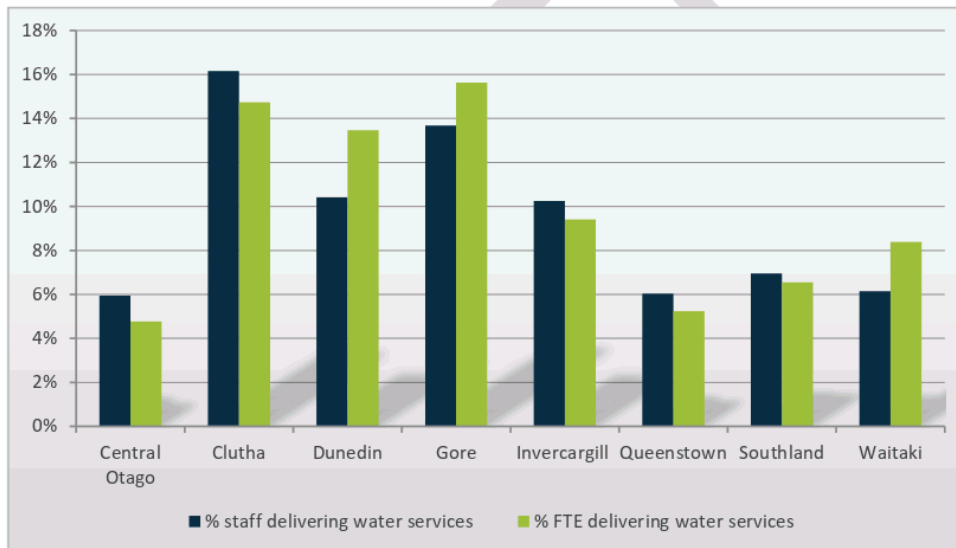
Outsourced contracts vary in size and scope between the councils. We note that over the next five years there are 17 large contracts expiring valued at approximately \$40m/year when combined. Dunedin City Council also has significant long-term design and renewals contracts worth around \$25m/year expiring between 2026 and 2028 depending on whether options to extend are exercised.

Scale relative to council size

The proportion of council staff directly involved in the delivery of three waters varies²² from 6% in CODC, QLDC and WDC to 16% in CDC. This is driven by the services provided, the infrastructure each council has to service, as well as the different delivery models including:

- the proportion of in-house delivery versus outsourcing
- the use of either dedicated functional teams (e.g. asset management, capital works) versus teams dedicated to the various asset types (e.g. water, transport, waste).

Figure 47 Proportion of employees and proportion of FTEs involved in delivering three waters services



²² Note all figures exclude corporate services and customer services staff supporting three waters delivery.



Differences in valuation and depreciation

Councils adopt a number of different approaches to the valuation of their three waters assets, and the assessment of the useful lives of those assets (which contributes to the calculation of depreciation, and the estimation of the cost of future capital works).

It is important to understand these differences, as these can have a significant bearing on the potential cost impacts of future investment, and on day to day operating costs. Further, in the event that a new water services entity is established, relative asset value is a common (though not the only) way of determining the value of individual shareholdings.

This section highlights significant differences in unit rates for three waters underground assets across the two regions, with unit rates for 100mm pipe differing by up to 13 times between the lowest valued pipe (\$70/m) and the highest valued pipe (\$929/m). These variations may have significant impacts on forecast investment programmes, as the rates are typically used to determine the value of renewals. Where councils have underestimated the replacement cost of their three waters assets, it is likely that their future investment needs will be much higher than disclosed elsewhere in this report.

**1200% difference
between lowest
and highest unit
rates for 100mm
water pipe**

This section also highlights the variation in average base lives for underground three waters assets. For stormwater infrastructure the estimated base life for asbestos cement pipes in Waitaki is double that of Clutha, Dunedin and Gore. Other material types also have a reasonable degree of variation in base lives.

Base lives may be adjusted throughout the life of the asset to reflect observed variation in condition and performance of assets, and variations may be entirely appropriate between districts due to differences in the external environment and loading. However, it is worth noting that base lives are a key input for the timing of renewals investment and depreciation charges.

In the event of the aggregation of three waters services we would anticipate that a degree of normalisation would have to occur for both unit rates and base lives to ensure a consistent approach (though not necessarily consistent values) is applied.

Unit rates

Unit rates presented in this section are taken from asset registers and valuation registers provided to Morrison Low during February 2021. Of note, Dunedin advised that their valuation was completed as recently as the end of 2020, and that this valuation is reflected in the registers that we reviewed.

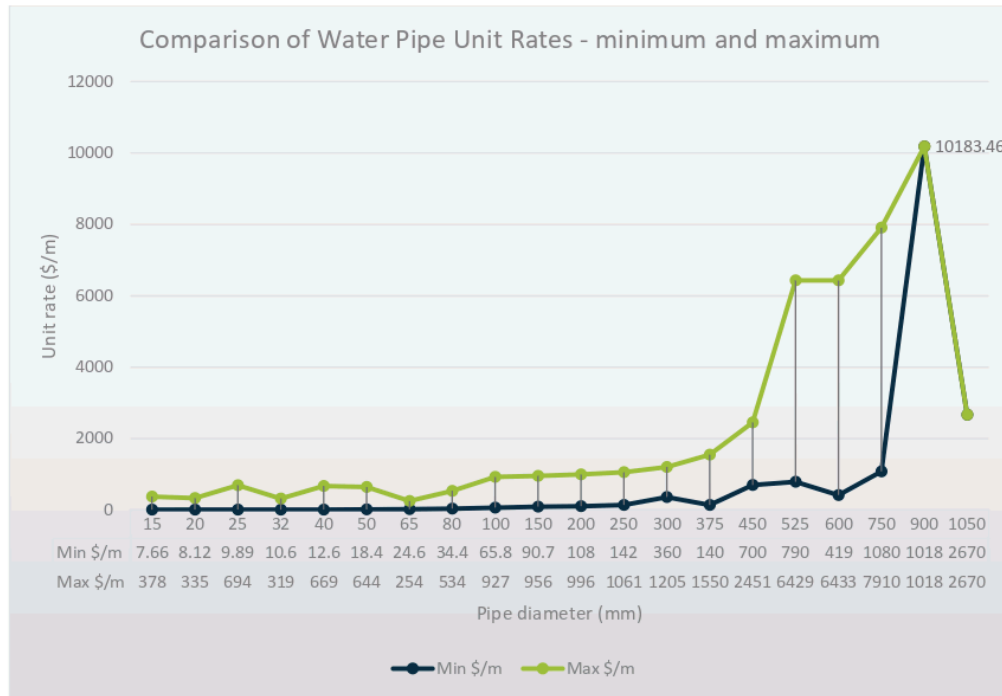


Water

The following graph displays the maximum and minimum unit rates from the councils' asset registers. It shows a wide variance between councils in rates used at all diameters. The cause of these variation will require further analysis that is outside the scope of the current study.

Any changes to these assumed costs when renewal work is undertaken will have a significant impact on future costs and therefore projected debt and charges.

Figure 48 Comparison of water pipe unit rates

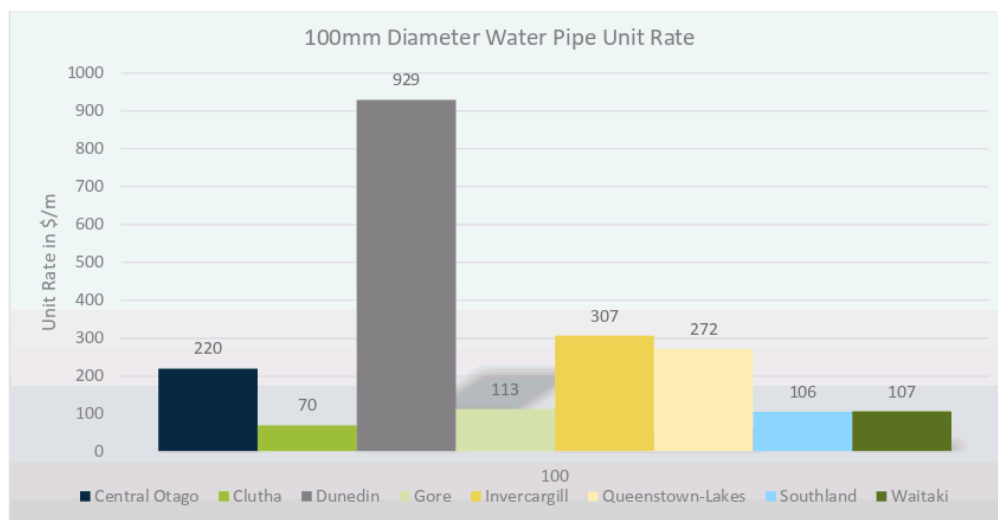


To show variation across the councils, the rates for a common diameter watermain are shown in the following figure. Dunedin's rate is clearly exceptional, but significant variation exists across the other councils as well. Even with Dunedin excluded, there is a four-fold difference in unit rates between Clutha (\$70/m) and Invercargill (\$307/m)

There is also a clear urban rural split with unit rates which is not unusual. Dunedin, Invercargill and Queenstown have the highest unit rates in the two regions. While the rural/urban difference is unsurprising, the scale of the difference between Dunedin and the other urban councils is unusual (Dunedin's unit rate is three time larger than the next most expensive).



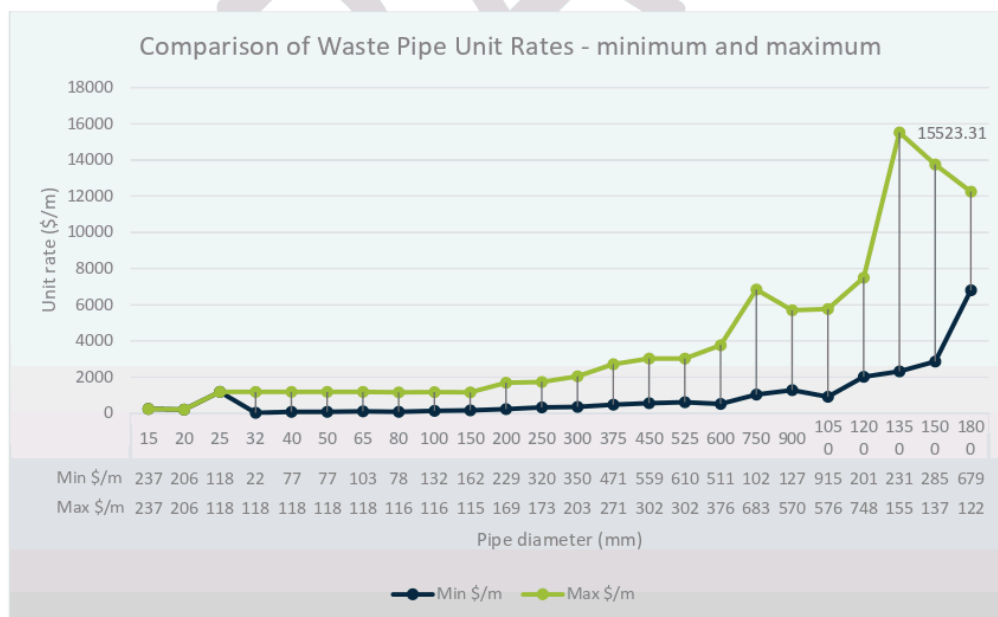
Figure 49 Comparison of unit rates for 100m diameter water pipe between councils



Wastewater

Considerable variation also exists in the unit rates for wastewater pipes. It is less marked than the watermain rates but does exist across all sizes where these occur in more than one council's register.

Figure 50 Comparison of wastewater pipe unit rates



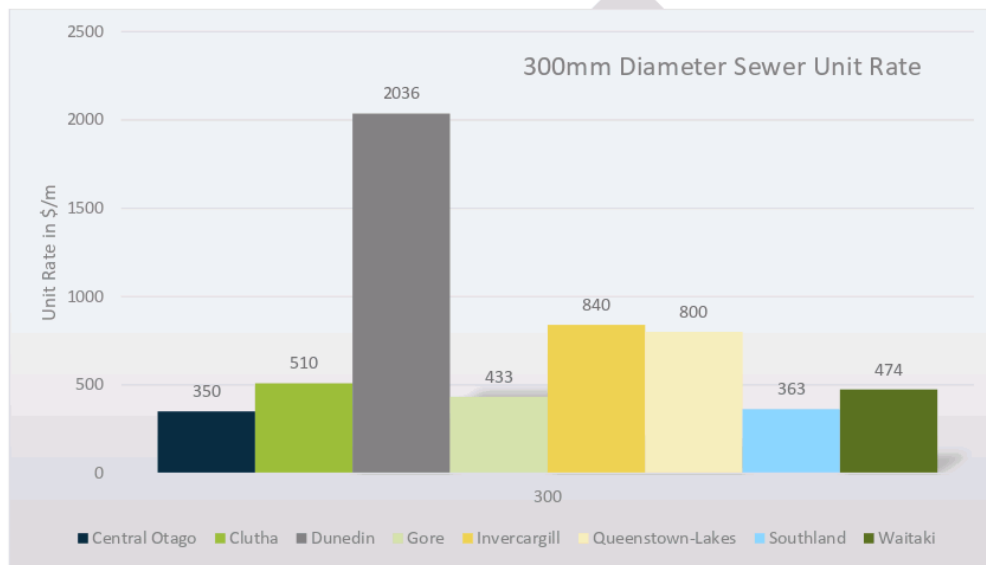


To show variation across the councils, the rates for a common diameter sewer main are shown in the following figure. As with the water pipe rates, Dunedin's rate is exceptional, but significant variation exists across the other councils. The variation in rates is largely similar to that of the water pipe rates.

Again, Dunedin is a clear outlier with unit rates that are more than five times larger than the cheapest rates in the two regions (Central Otago). Again, even with Dunedin excluded, both Queenstown and Invercargill have unit rates that are more than double those in Central Otago and Southland (their respective neighbouring councils).

The difference in unit rates between urban and rural councils is not surprising and is a common trend nationally. The scale of difference between Dunedin and the other urban councils is however unusual.

Figure 51 Comparison of 300mm diameter sewer pipes

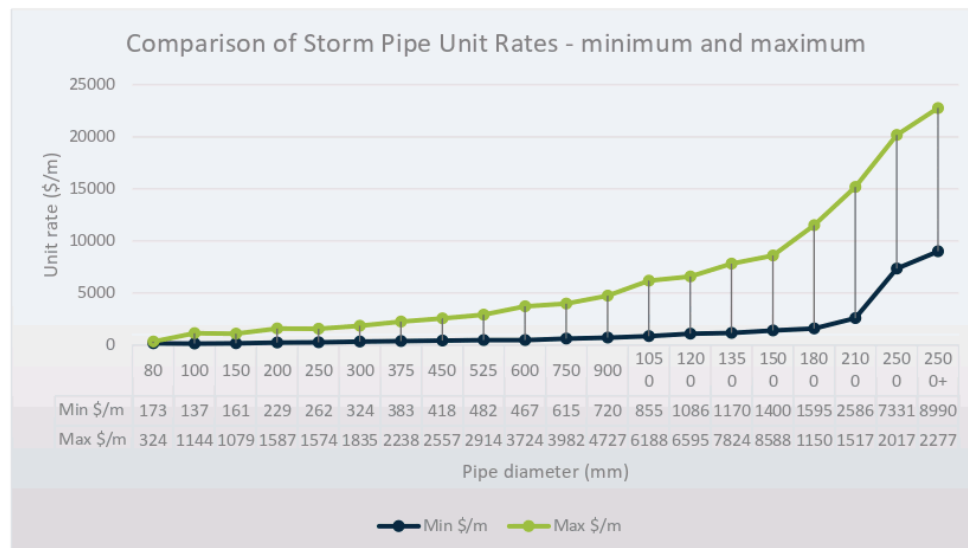




Stormwater

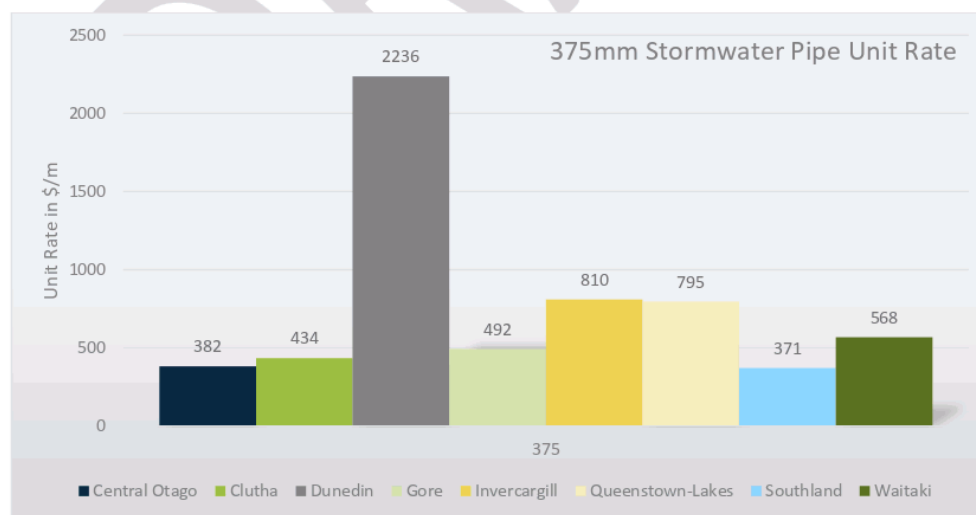
Unit rates for stormwater mains also show a large variation across the group of councils for all sizes.

Figure 52 Comparison of storm water pipe unit rates



The unit rates for a common diameter stormwater main shows a similar pattern to the other networks, with Dunedin again having unit rates that are more than 2.5 times the rate of the next highest Council, and a clear rural/urban split.

Figure 53 Comparison of unit rates for 375mm stormwater pipes





The difference in unit rates across all three waters demonstrates the need for a comprehensive review of asset unit rates as part of any proposed reform process which may take place in the future and highlights the level of uncertainty associated with the forecasts included in each councils RFI.

There is a clear trend that urban centres have higher unit rates across the three waters, and this is not dissimilar to our experience elsewhere in the country. However, further investigation would be required to verify the unit rates and compare approaches to valuation.

If aggregation was to be considered the differences shown here have the potential to make significant changes to projected costs if they were normalised.

Base lives

Base Lives are an important parameter used in determining the remaining life of assets. Base lives are also used for the calculation of depreciation, and changes in base lives can have a significant impact on the level of depreciation that is charged to ratepayers.

If aggregation was to be considered the differences shown here have the potential to make significant changes to projected costs if they were normalised.

Even seemingly small differences in bases lives can have a significant difference in operating costs, with the difference between an 80 year and 100 year base life translating to 25% difference in depreciation.

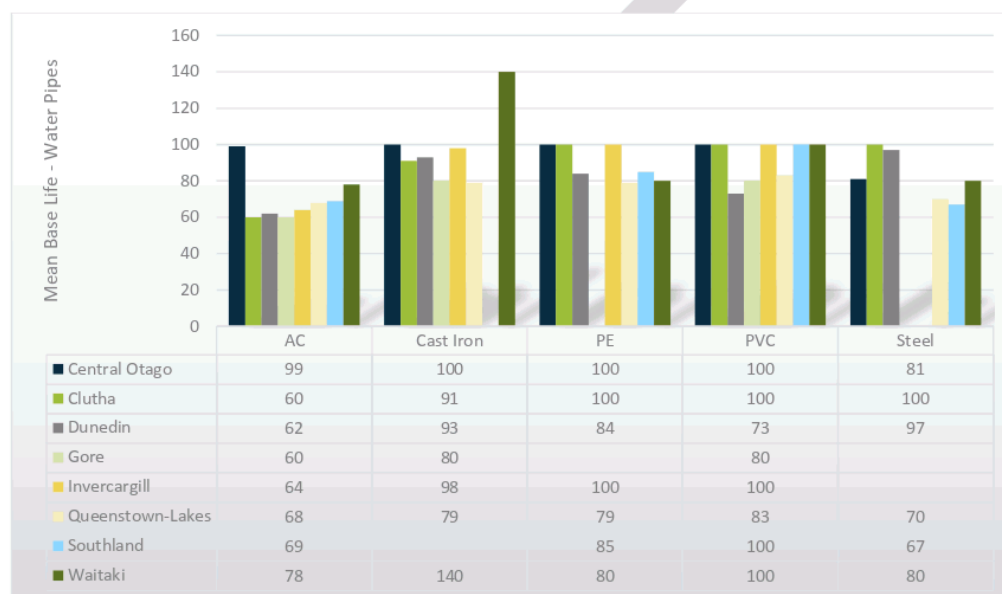


Water

The following figures display the mean values used by the councils for the various pipe materials in use. Some councils use a scale of base lives for a particular material dependent on size. Waitaki is an example in that three base lives are applied to ranges of sizes, and this has been done based on an assessment of pipe performance at the most recent valuation. The existence of multiple base lives values in other council's registers may be for the same reason.

There is wide variation in these asset lives, and the chart below shows the most common asset types across the two regions.

Figure 54 Comparison of average base lives for most common water pipe materials



Of significance is the variation in the useful lives of asbestos cement pipe (99 years in Central Otago versus 60 in Clutha and Gore – which would result in 66% more depreciation in those councils with shorter base lives). Also the variation in useful lives for cast iron pipes between Waitaki (140 years) and Gore (80 years) which would translate to a 75% increase in depreciation for Waitaki if its base lives were adjusted down to match Gore's.



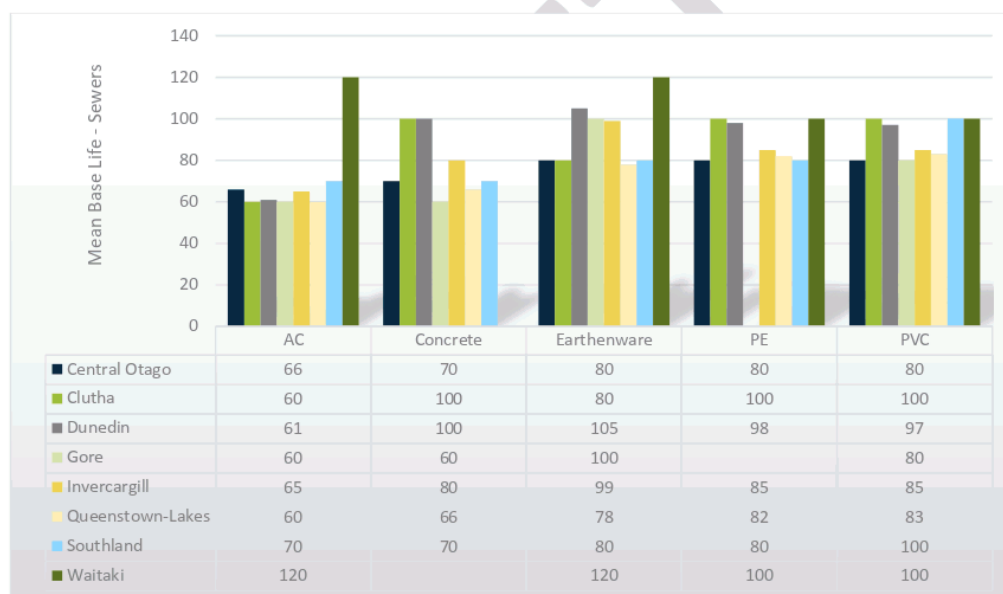
Wastewater

The following figure displays the mean values used by the councils for the various sewer pipe materials in use. Multiple values do exist for material types within individual council's registers and the reason for this may be due to size range, but further analysis will be required to confirm this assumption.

There is more commonality that for watermain, with the exception of Waitaki which has the highest base lives. The difference between the base lives for Waitaki's asbestos cement wastewater pipes and the base lives for the rest of the councils translates to a difference in depreciation charges between 70 – 100%.

Differences in base lives translate to a difference in depreciation between 70 – 100%

Figure 55 Comparison of average base lives for common wastewater material types

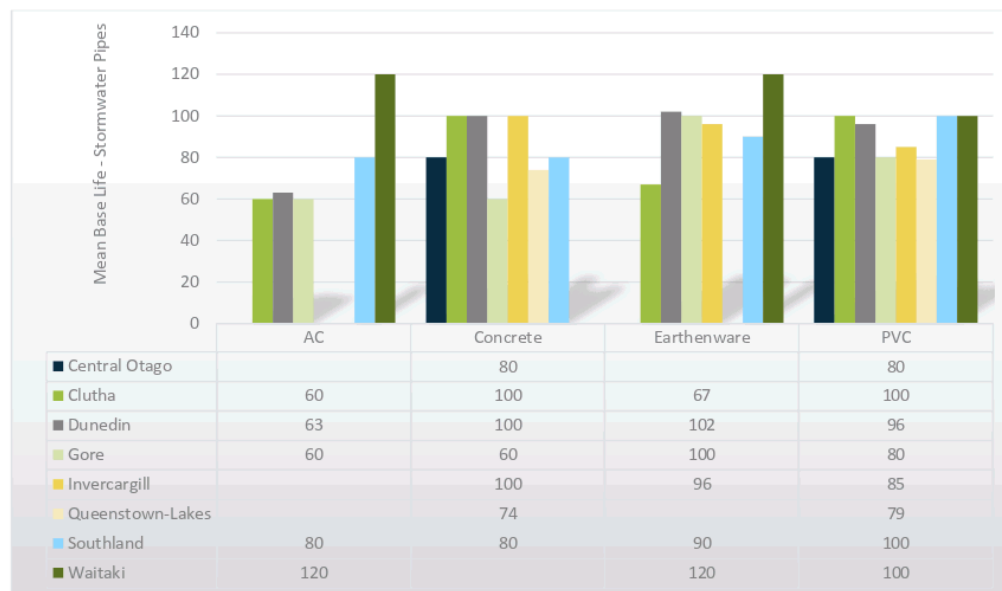




Stormwater

Significant variation in mean base lives for stormwater pipes also exists, with Waitaki once again having the highest values. Again the difference between Waitaki's base life for asbestos cement pipes and the remaining councils translates to a difference in depreciation of between 50 – 100%.

Figure 56 Comparison of average base lives for common stormwater pipe material



Again, the variation in base lives across all of the three waters assets demonstrates a need for a review of different approaches as part of any further work to investigate proposed reform of three waters service delivery.



Appendix One Asset information

This appendix presents detailed information regarding the age profile, condition and material composition for the three waters networks for the councils in the two regions.

The information presented in this appendix is derived from RFIs and asset registers provided to Morrison Low during February 2021.

The information presented here is more detailed and technical in nature than that presented elsewhere in the report but provides useful context and additional information.

The findings of this section support the earlier commentary about investment need and provide additional context regarding levels of service and asset performance that is discussed earlier in the report. For example, the high proportion of Dunedin's water and wastewater network that has less than ten years of remaining useful life is reinforced in our estimates of potential renewals in the Investment Needs section.

It also highlights some of the key differences in the way that three waters services are provided across the two regions and offers some explanation for differences in cost. For example, high numbers of water pump stations and treatment plants in Clutha are likely to be contributory factors to the high average household charges in that district.

Water

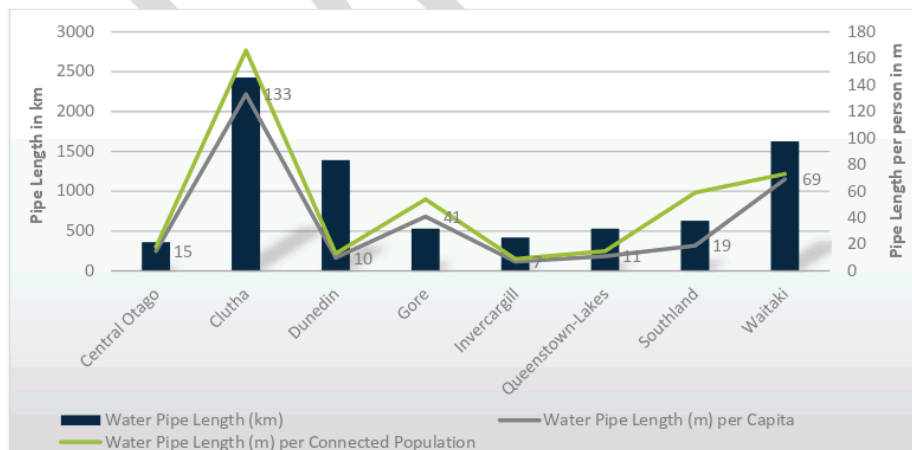
Asset information

The figures below set out information about the number and type of assets involved in the water supply service. The type of pipe material and age of the assets is also set out. This information begins to highlight the differences between the respective councils' networks.

What follows in the next sections is a comparison of the condition of the network and comparison of the failure rates in the network.

Information relating to pipe networks does not include service connections as not all councils record the length of these.

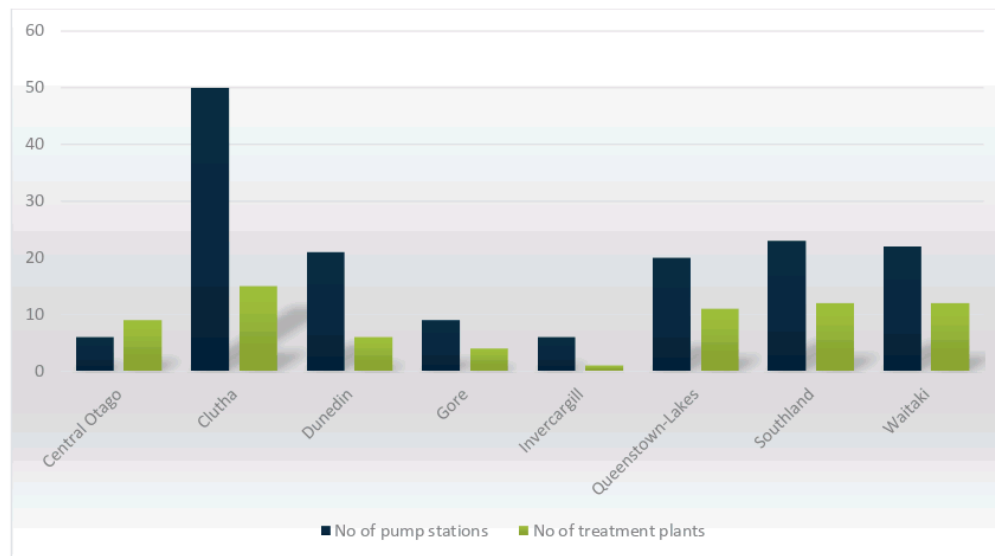
Figure 57 Water pipe length





Length of the water network per population is less for the councils with larger urban centres. Length per population is shown for two measures – per Capita relates to the total estimated resident population at 30 June 2020 according to Stats NZ, while the per Connected Population refers to the household population connected to the water service in the councils' response to the Government's Request for Information. Two of the smaller councils in terms of population, Clutha and Waitaki also have the largest networks by total length.

Figure 58 Water pump stations and treatment plants



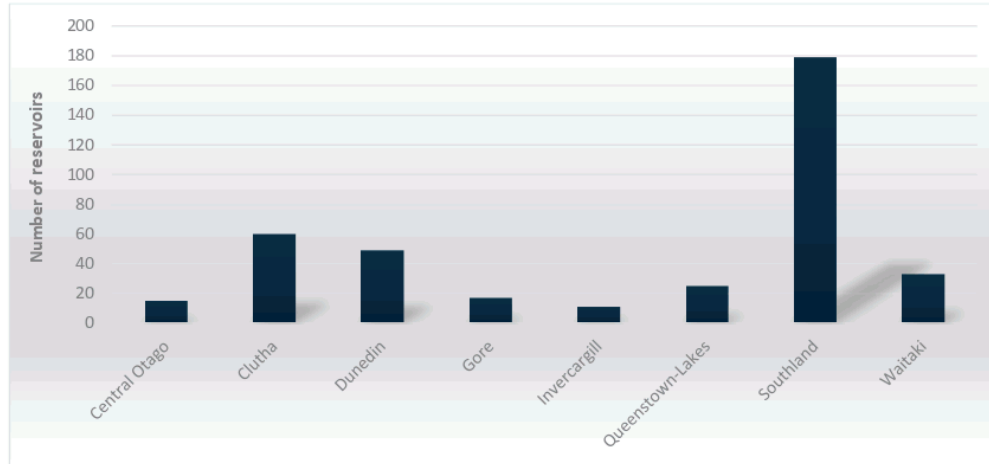
The number of pumping stations and treatment plants gives an indication of how complex the systems are to operate. Rural districts tend to have more schemes and therefore more treatment plants. This is likely to result in increased operational costs, a higher risk of failures affecting both level of service and compliance and an increased need for sound and proactive asset management approaches.



Water reservoirs

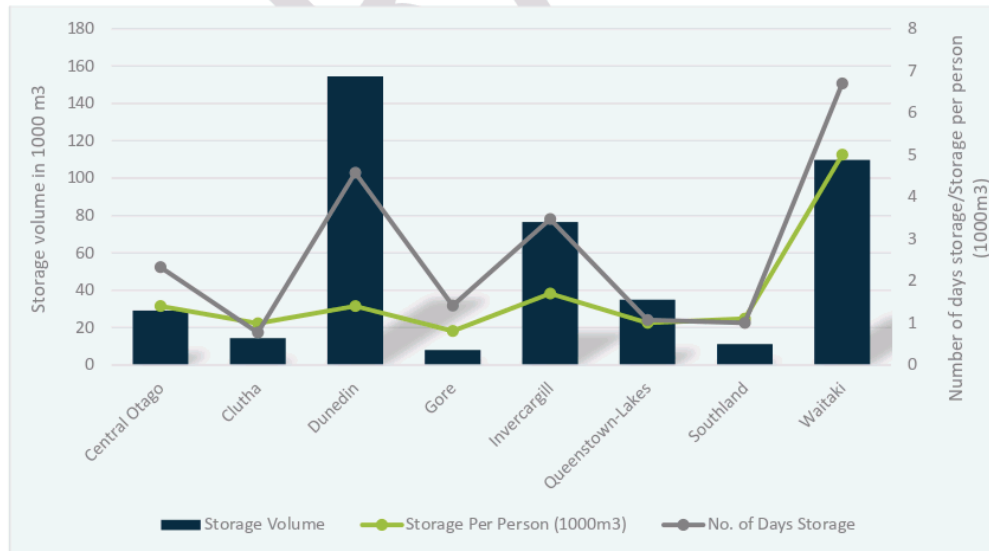
There are also differences in the councils' water storage capacity. The number of reservoirs reflects several factors including the rural nature of the network, topography and population served.

Figure 59 Number of reservoirs



The Councils' water storage in the reservoirs also varies. Reservoir capacity is more closely aligned to the population served. Waitaki's storage includes 72ML for the raw water reservoir in Oamaru.

Figure 60 Reservoir storage



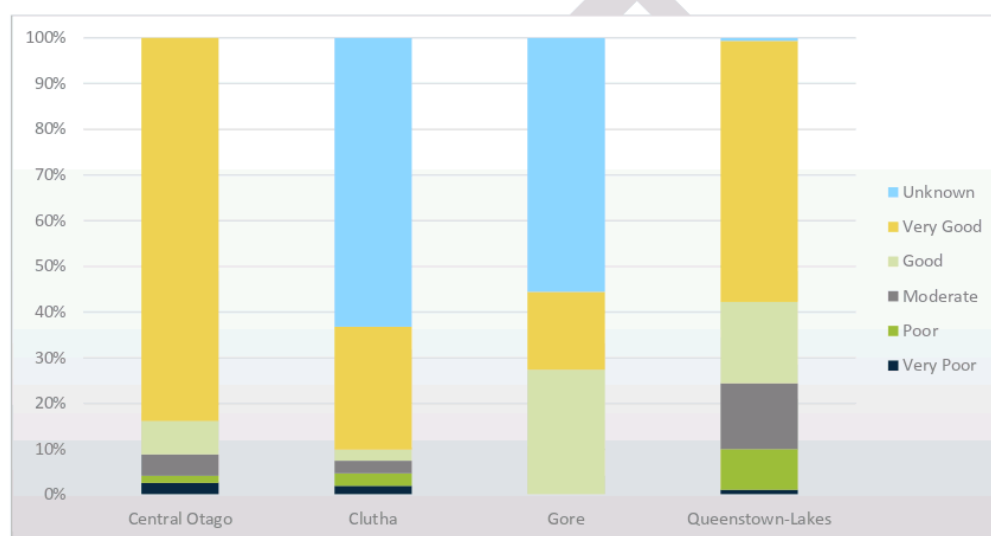


Age and condition of water network assets

Condition of the pipe networks was reported by four of the eight councils - Central Otago, Queenstown, Clutha and Gore. As a consequence of this, over 80% of the value of the three water pipe network (by value) is in an unknown condition. This information should be viewed with caution and may not be directly comparable as the councils may also have different approaches to rating their assets and different confidence levels in the data on which the assessment is based. It should also be noted that condition assessment of water pipes is problematic due to their nature of use. The rating that was provided shows the majority of the water networks are in *Good* or *Very Good* condition. The percentage of these networks that are in *Poor* or *Very Poor* condition is low compared to most other networks of comparable size nationally.

It should also be noted that the condition of below ground water pipes is particularly difficult to assess.

Figure 61 Water network condition (by length)

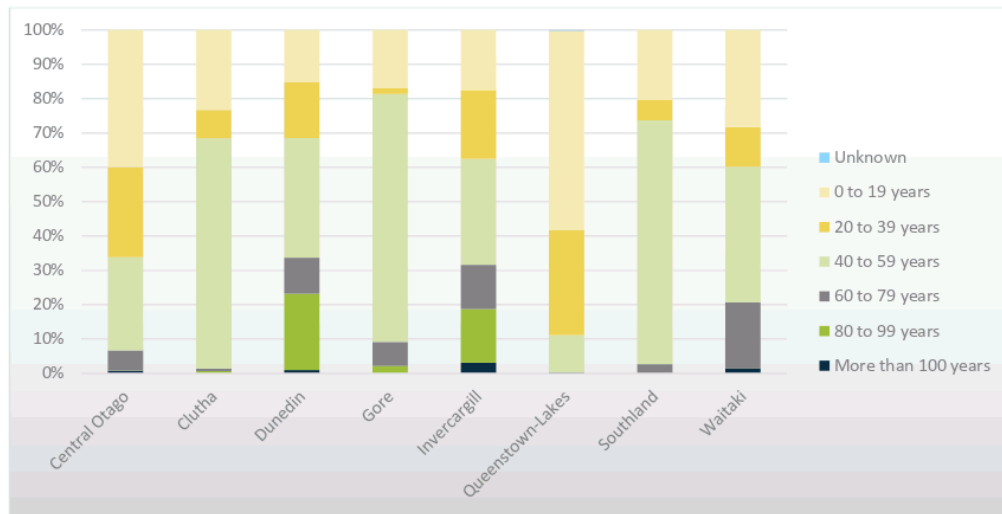


As condition data is only partially available (four councils) and because of the variance in both confidence in and approach to determining actual condition, a more consistently available proxy, age is used to determine remaining useful life. Where a comparison can be made, it would appear that the networks are generally performing better than the age would indicate.

The age profile shown below includes a significant proportion in the 40 to 59 year age bracket, and this aligns with trends in other parts of the country. However, this does represent a risk in terms of a cluster of future renewals. Dunedin and Invercargill account for the largest portion of old watermains, whereas areas that have exhibited rapid growth in recent years, such as Queenstown, are represented more noticeably in the newer age brackets.

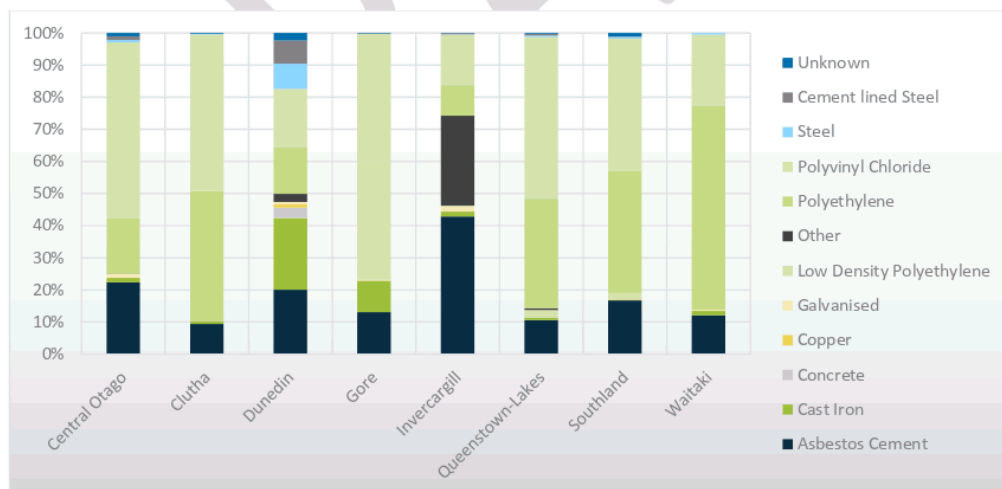


Figure 62 Water network age (by length)



Pipe material is important for understanding failure modes as well as age. The following graph shows the proportion of materials used in each council's water network. Polyethylene and polyvinyl chloride pipes, mainly installed from the 1960s onward, form the largest proportion of all networks apart from Invercargill and Dunedin.

Figure 63 Network composition by material type



Low Density Polyethylene pipe (which has a shorter useful life than Polyethylene) makes up the majority (23.2%) of Gore network. Much of this pipe is expected to reach the end of its useful life within the next ten years. Some early polyethylene pipes were subject to quality issues in the initial stage of the technological development.



Cast Iron has been in use since the 1860s (in Dunedin). Installation of cast iron pipes reached its peak in the 1930s and contributes a significant portion of the Dunedin and Invercargill (lined iron pipes in the 'Other' category) networks. Much of this pipe is nearing the end of its expected life.

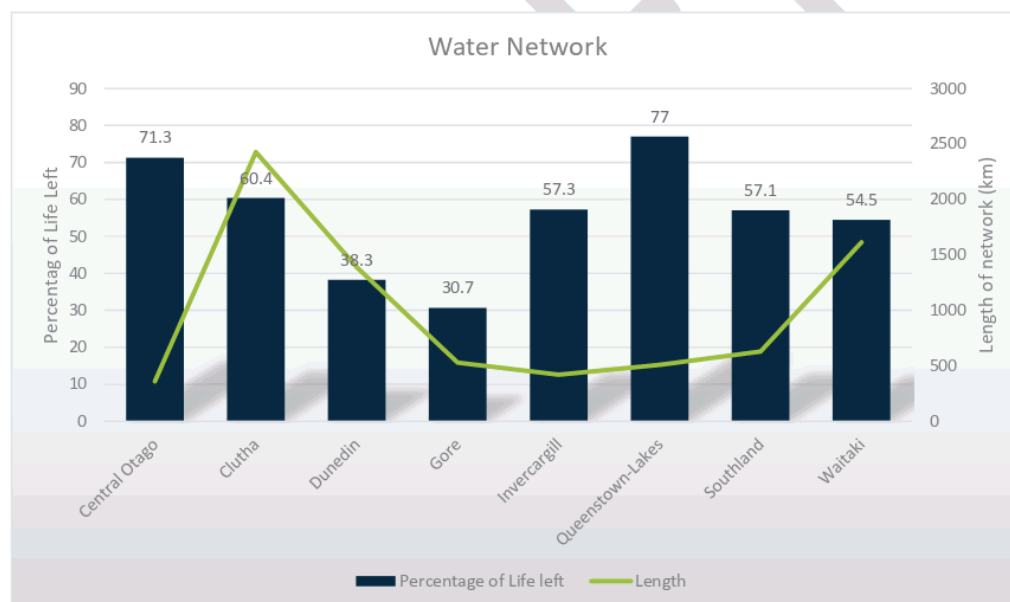
Asbestos Cement makes up a significant portion of mains installed from the 1950s to the 1980s and makes up over 40% of Invercargill's mains. This pipe is also nearing the end of its expected life.

Cast Iron and AC pipes are more brittle than other materials in use and represent a greater risk for earthquake resilience and can fail earlier than their design life.

Asset remaining useful life

The water networks vary considerably between Councils in the amount of mean life remaining (Expected Useful Life / Base Life) ranging from 30.7% for Gore to 77% for Queenstown. The latter is the youngest network in the country²³. With the exception of Gore and Dunedin (38.3%), all councils have a mean of over 50%. This is partially reflective of the relative ages of the networks. Dunedin has the oldest network in the country²⁴, and Gore is one of the oldest.

Figure 64 Asset consumption for water network



²³ Based on average age, Water New Zealand National Performance Review 2018/19

²⁴ Ibid.

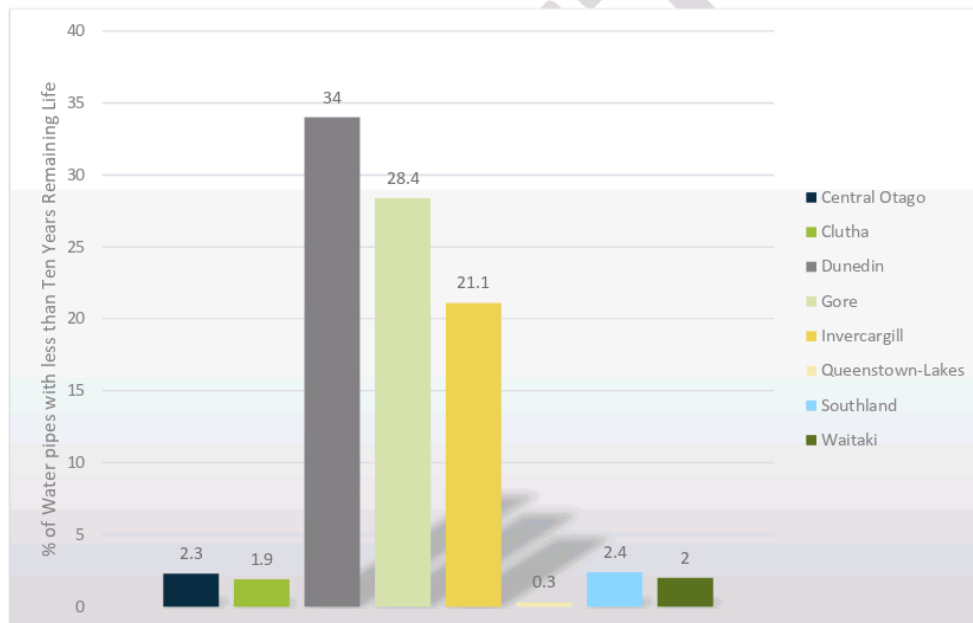


Remaining useful life is based on the age of the pipe compared to the expected Base Life. It should be acknowledged there is some uncertainty around base lives used in New Zealand, and not a lot of data is captured world-wide. There is considerable variation in Base Lives used by the councils in this study. This is as much as 60 years' difference for cast iron.

Performance and condition of the network is typically reviewed alongside regular asset valuations. These reviews may see an adjustment to the Base Lives, which may account for some of the differences, or the adjustment may be made directly to the remaining useful lives in the asset register. It should be noted that estimation of life left is not an exact science, and refinements are made as performance of the network is periodically reassessed.

The percentage of each pipe network with less than ten years of remaining useful life is shown in the second graph below.

Figure 65 Percentage of pipes with less than ten years' remaining life





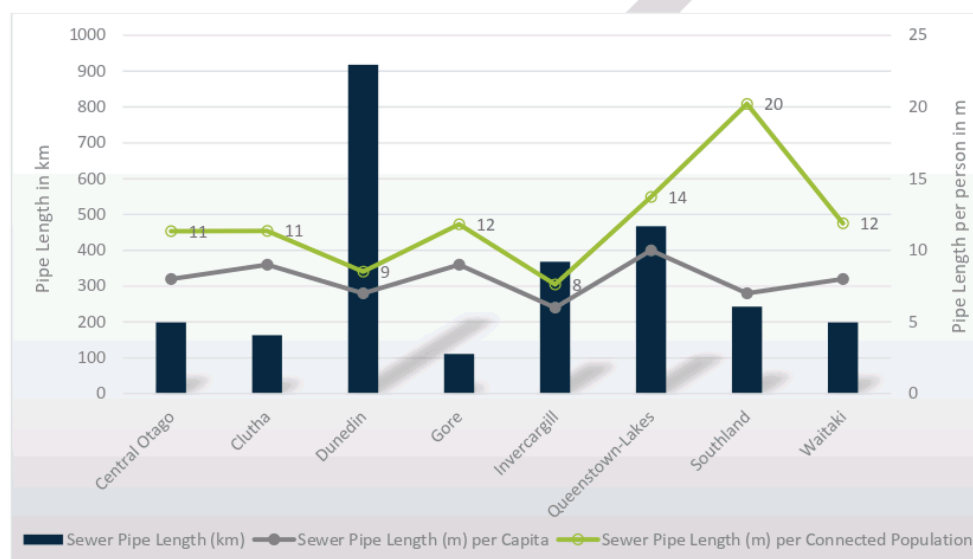
Wastewater

Asset information

The figures below set out information about the number and type of assets involved in the wastewater service. The age of the assets is also set out. This information begins to highlight the differences between the respective councils' networks.

Information relating to pipe networks does not include service connections as not all councils record the length of these, and where this is recorded councils may have low confidence in their data.

Figure 66 Wastewater pipe length



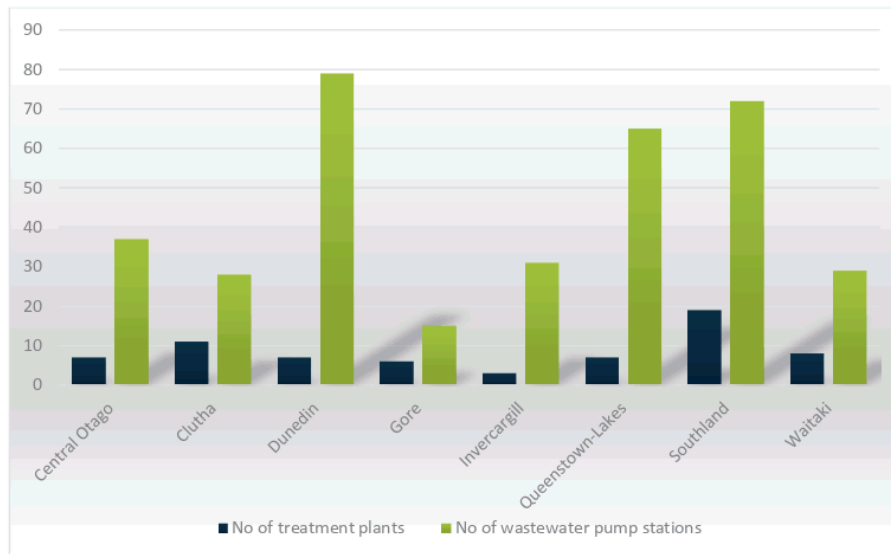
The network lengths reflect the relative size and density of the populations served. Provision of wastewater reticulation to rural areas is unusual, as these tend to be serviced by septic tanks, so the wastewater networks of Clutha and Waitaki are not overly large in comparison to population size as compared to their water networks. Length per person is higher for councils with smaller, dispersed population centres such as Central Otago, Clutha and Southland.

The number of treatment plants reflects the number of individual communities served. Larger networks such as Dunedin's are served by a relatively small number of plants, whereas the smaller networks of Southland require more plants. This is likely to result in increased operational costs, a higher risk of failures affecting both level of service and compliance, and an increased need for sound and proactive asset management approaches.

The relative number of pumping stations reflects both the size of the networks and the topography. Invercargill's and Gore's relatively compact layouts and flat topography result in a less reliance on pressurised mains than other networks. This will have a direct impact on operational costs, risk of failure and asset management practices.



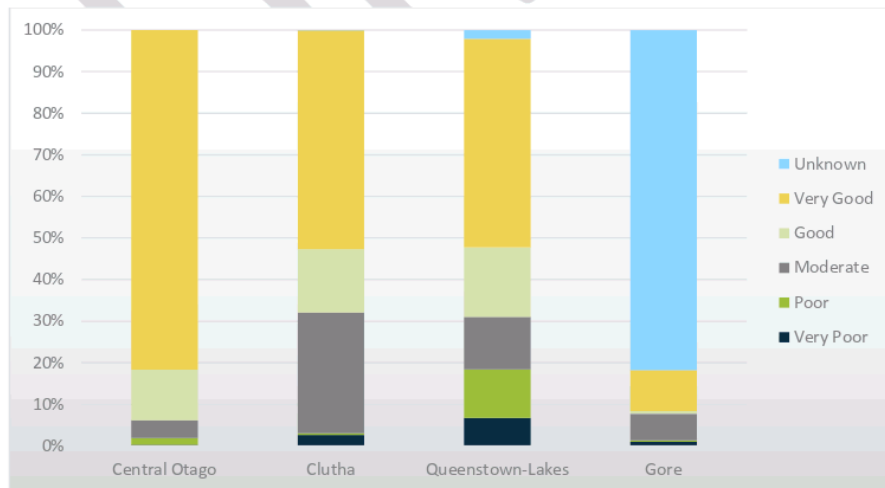
Figure 67 Number of pump stations and treatment plants



Asset age and condition

Four of the eight councils provided explicit condition data and one of those four provided the data for only a small portion of their assets. Those councils may also have different approaches to rating their assets and different confidence levels in the data on which the assessment is based. The rating that was provided show most of the wastewater networks are in *Good* or *Very Good* condition. The percentage of these networks that are in *Poor* or *Very Poor* condition is low compared to most other networks of comparable size nationally, with the exception of Queenstown-Lakes which is average. Condition is shown in the graph below.

Figure 68 Wastewater network by condition

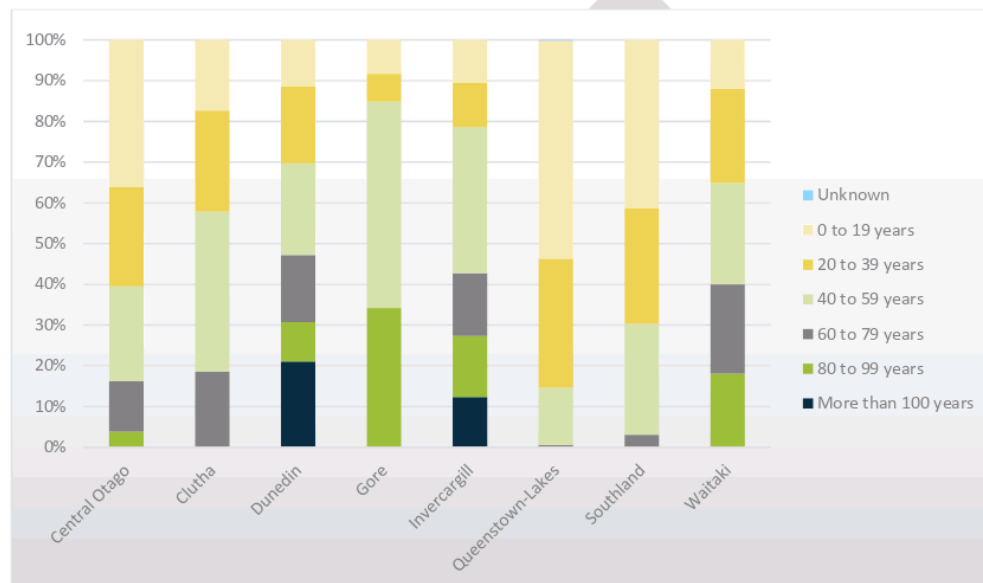




Age can be used as a proxy for condition, and the bulk of the wastewater network asset data does include the age. When age is compared with condition, where provided, it can be inferred that the pipes are performing better than their age would suggest they should. This trend is repeated for many other comparable networks nationally. However, the trend is less marked for Queenstown, which has over 18% of pipes in *Poor* or *Very Poor* condition and has one of the youngest networks in the country. Network age is depicted in the first graph below.

The age profile shows a wide spread, with Dunedin and Invercargill accounting for the oldest pipes, some over 100 years in age. These are two of the three oldest networks in New Zealand. Overall, much of the network is less than 60 year old. Queenstown's recent high growth rate is reflected in a significantly younger network. Data is extracted from the asset registers.

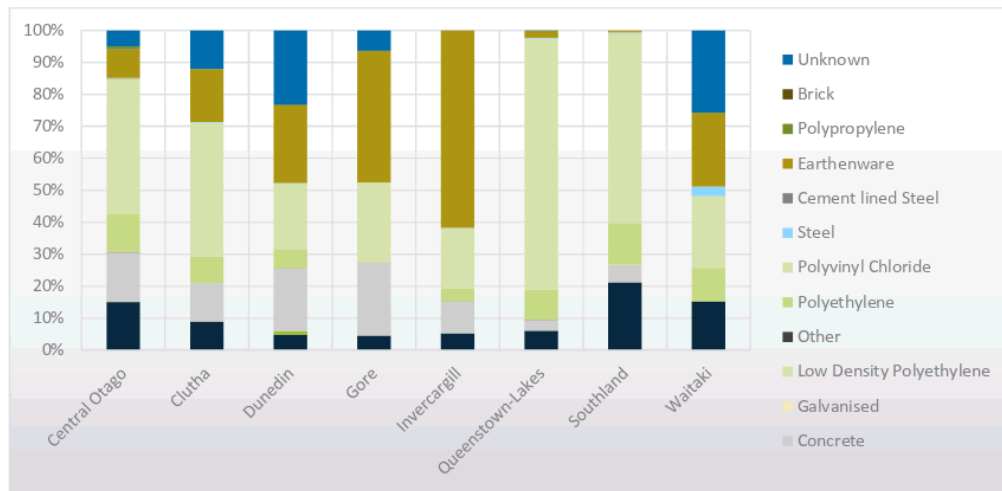
Figure 69 Wastewater network by age band



The age profile is also reflected in the pipe materials making up the network. Most of the older pipes are earthenware. Asbestos cement and concrete account for significant portions from the 1950s to the 1980s, while polyvinyl chloride with polyethylene make up the bulk of recent installations from the 1980s onward. Some councils such as Dunedin and Waitaki, and Clutha to a lesser extent, have a significant number of pipes of unknown material.



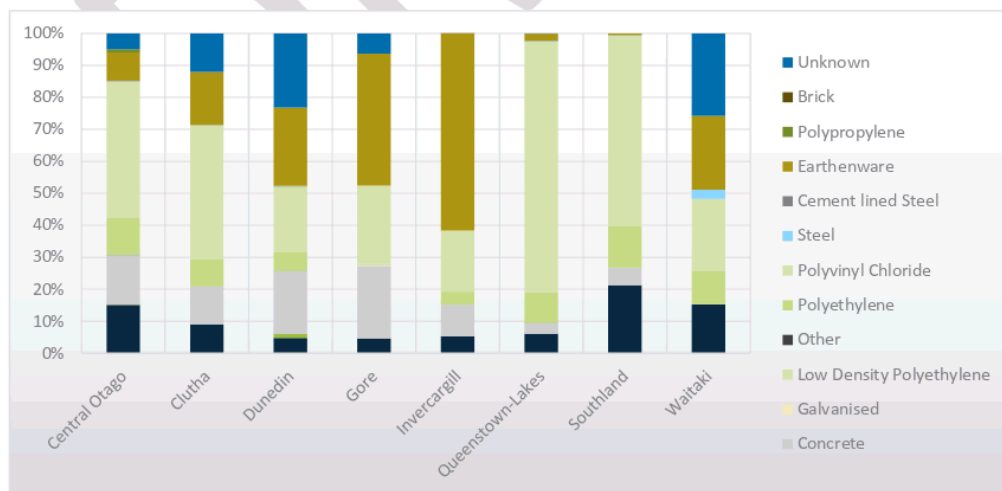
Figure 70 Wastewater network by material



Earthenware pipes account for significant proportions of the pipes with less than ten years expected remaining file – 24.4% of Invercargill's, 14.3% of Dunedin's, and 4.1% of Central Otago's. Earthenware pipes are short in length which means there are more joints than other types. Together with the relatively brittle nature of the material, this can lead to leaks, breakages and root ingress.

Concrete pipes account for the largest proportion (6.7%) of Central Otago's expiring network. AC pipes make up all of Queenstown-Lakes' network (3.5%) nearing end of life, plus 2.6% of Central Otago's. These materials are of a relatively brittle nature and as such represent a greater risk for earthquake resilience.

Figure 71 Wastewater network by material

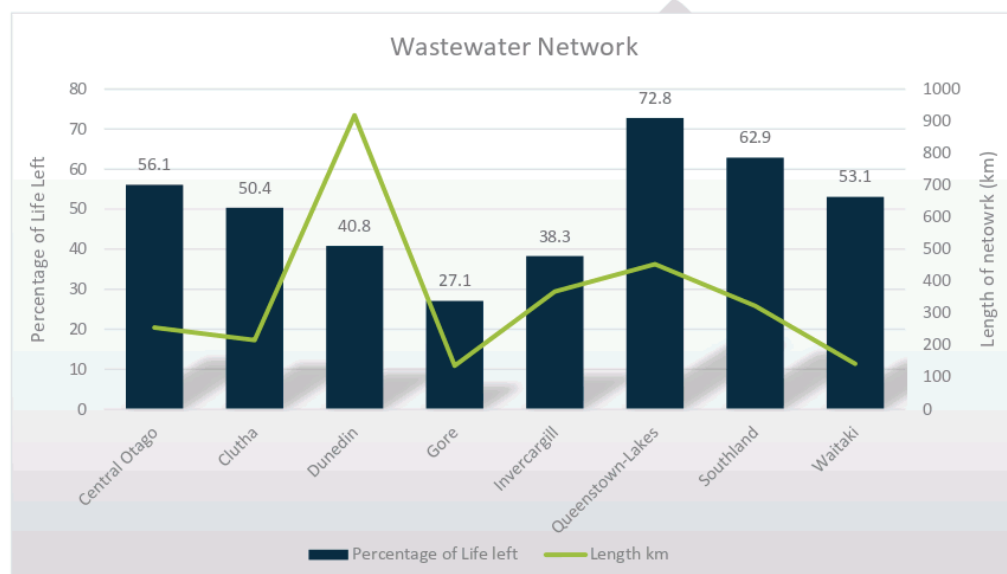




Asset remaining useful life

The wastewater networks vary considerably between councils in the amount of mean life remaining (Expected Useful Life / Base Life) ranging from 27.1% for Gore to 72.8% for Queenstown-Lakes. With the exception of Gore, Invercargill (38.3%) and Dunedin (40.8%), all Councils have a mean of over 50%. Whether the average age is mirrored in the timing and volume of impending renewals will depend on a number of factors including asset management practices, environmental conditions and the accuracy of condition assessment and base life estimation.

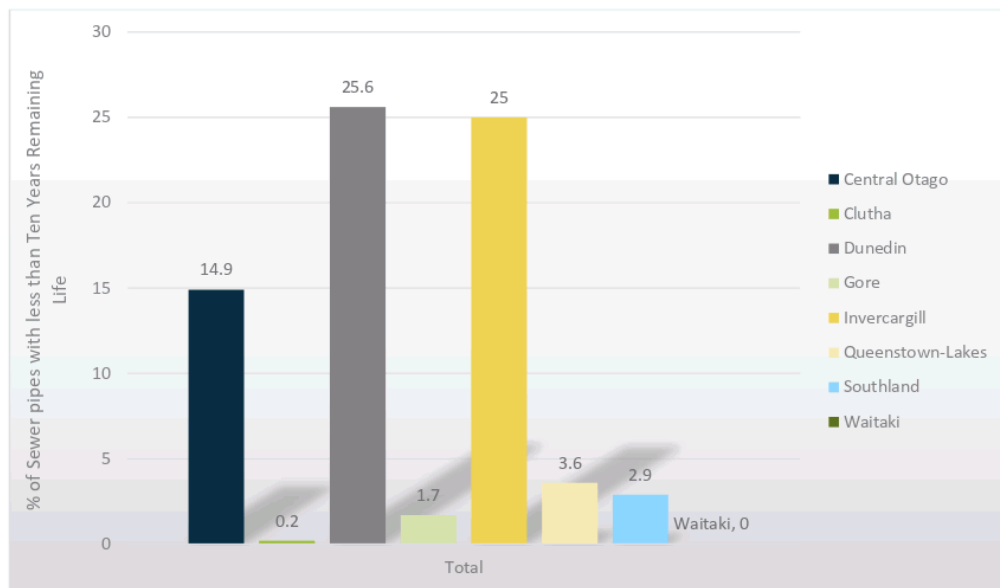
Figure 72 Asset consumption for wastewater network



Another measure of consumption is the percentage of the network with less than ten years life remaining. This measure shows that Dunedin (25.6%), Invercargill (25%) and Central Otago (14.9%) have significant amounts of their network nearing end of expected life.



Figure 73 Wastewater network with less than ten years remaining life





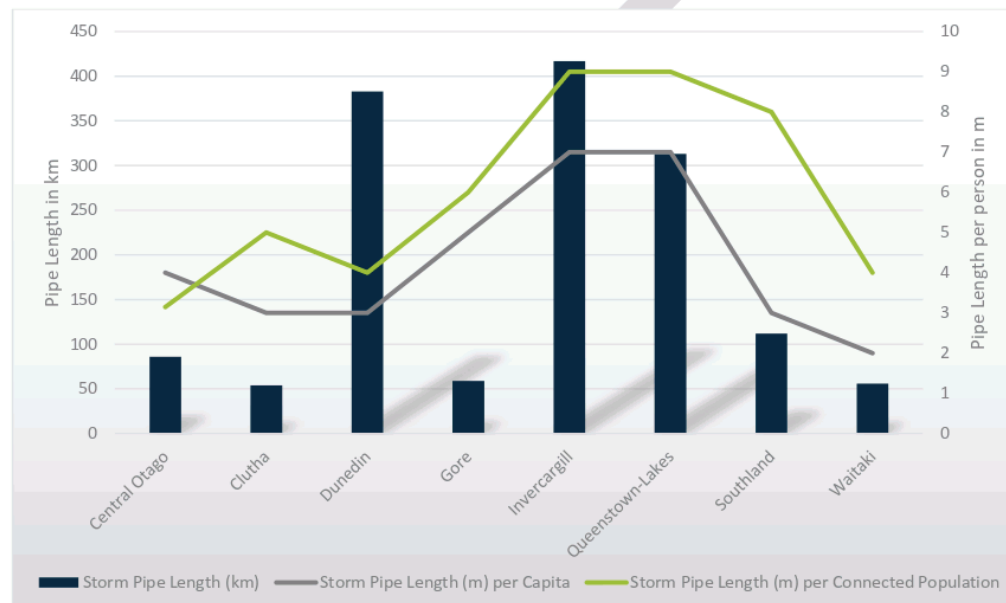
Stormwater

Asset information - stormwater

The figures below set out information about the number and type of assets involved in the stormwater service. The age of the assets is also set out. This information begins to highlight the differences between the respective council's networks.

Information relating to pipe networks does not include service connections as not all councils record the length of these.

Figure 74 Stormwater pipe length

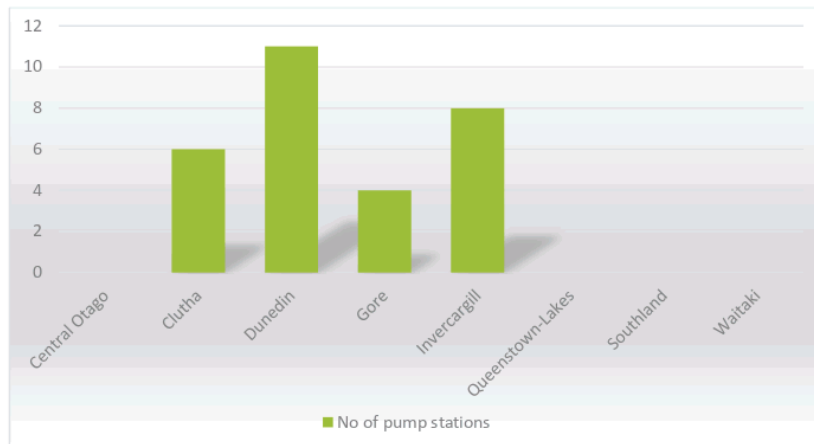


In general, the length of the councils' stormwater networks reflect the size of the populations. Length per population is shown for two measures – per Capita relates to the total estimated resident population at 30 June 2020 according to Stats NZ, while the per Connected Population refers to the household population connected to the stormwater service in the councils' RFIs. Dunedin's network is relatively small compared to Invercargill and Queenstown-Lakes, and this may be due to the topography and proximity to the coast.

Four of the councils - Central Otago, Queenstown-Lakes, Southland and Waitaki – do not have any stormwater pumping stations and rely entirely on gravity mains. Data is from RFI returns.



Figure 75 Stormwater pump stations

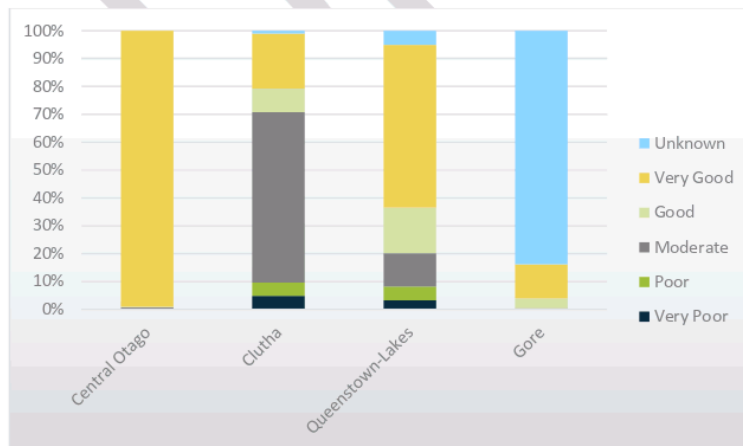


Asset age and condition

Four of the eight councils provided explicit condition data, and one of those four provided the data for only a small portion of their assets. Those councils may also have different approaches to rating their assets and different confidence levels in the data on which the assessment is based. The rating that was provided shows the water networks are in *Good* or *Very Good* condition, apart from Clutha which is mainly in a *Moderate* condition. Condition is shown in the second graph below.

Age can be used as a proxy for condition, and the bulk of the stormwater network asset data does include the age. This is depicted in the second graph below. Condition of the Central Otago network is reported to be in a significantly better condition than the Queenstown-Lakes network despite a similar but slightly older age. Clutha's network is older, and the condition reflects that. Gore does report good condition but over 80% of the network is in unknown condition.

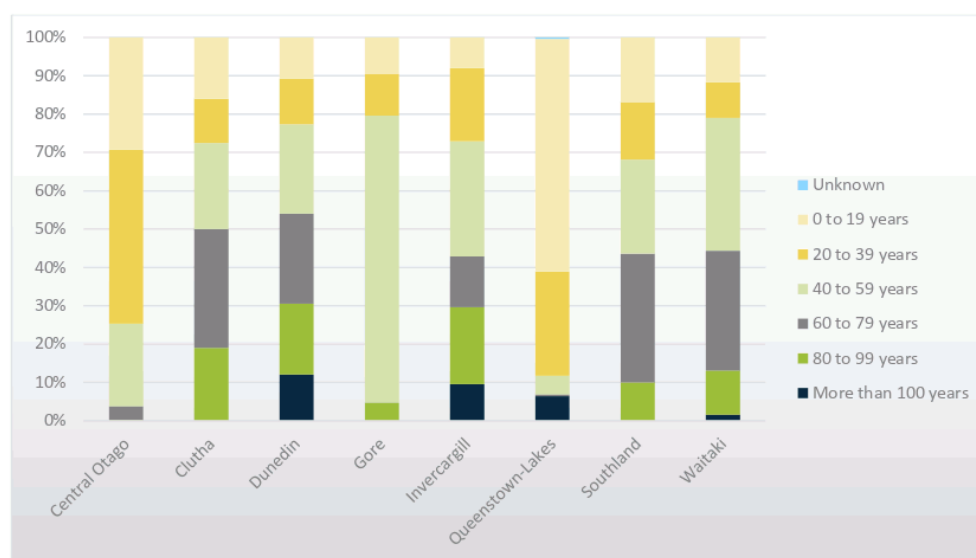
Figure 76 Stormwater network by condition





The age profile of the stormwater network shows a reasonably consistent spread of ages. Dunedin and Invercargill account for most of the oldest pipes while Queenstown has a high proportion of the newest pipes. As with the water and wastewater networks, the largest proportion is in the 40 to 59-year bracket, a situation that adds to the risk of a cluster of renewals in future. The councils' stormwater networks contain four of the five oldest networks in the country – Invercargill, Dunedin, Waitaki and Clutha²⁵.

Figure 77 Stormwater network by age band



Earthenware pipes make up the bulk of the older installations, from the 1900s through to the 1960s, and account for the largest proportion of pipes with less than ten years remaining life (23.1% of Invercargill's, 8.6% of Southland's, 7.6% of Clutha's and 6.6% of Dunedin's). As discussed for wastewater, earthenware pipes have frequent joints and are relatively brittle.

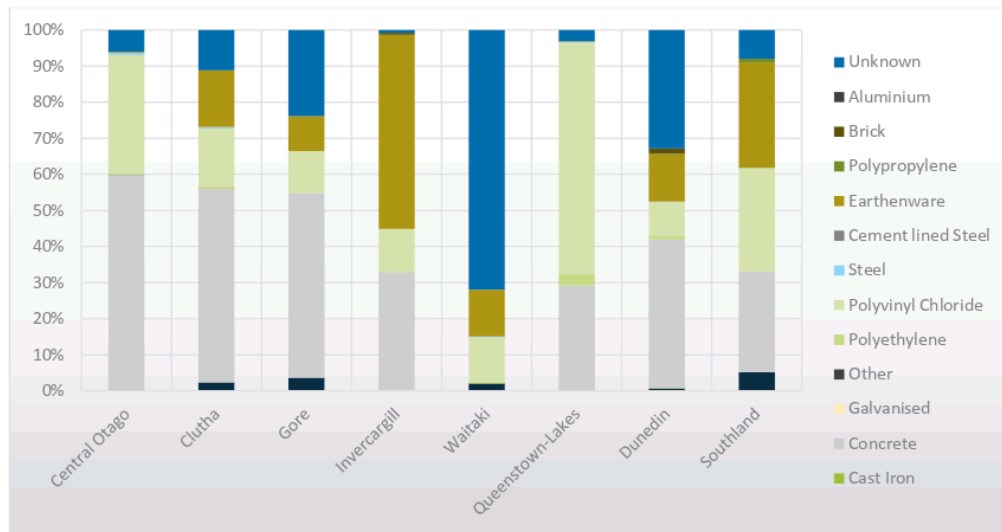
Concrete pipes account for the bulk of the network installed from the 1950s and apart from pipes of unknown material, contribute the next largest percentage of pipes of expiring life. Polyvinyl chloride pipes are in the majority of the most recent additions.

A small part of the Dunedin and Invercargill networks consists of brick pipes primarily from the 1870s and contribute to the pipes reaching end of life in these networks. Though these pipes can still function and be rehabilitated (as has been done in Auckland). There is significant number of pipes of unknown material, particularly in the Waitaki network and Dunedin.

²⁵ Based on average age, Water New Zealand National Performance Review 2018/19



Figure 78 Stormwater network by material



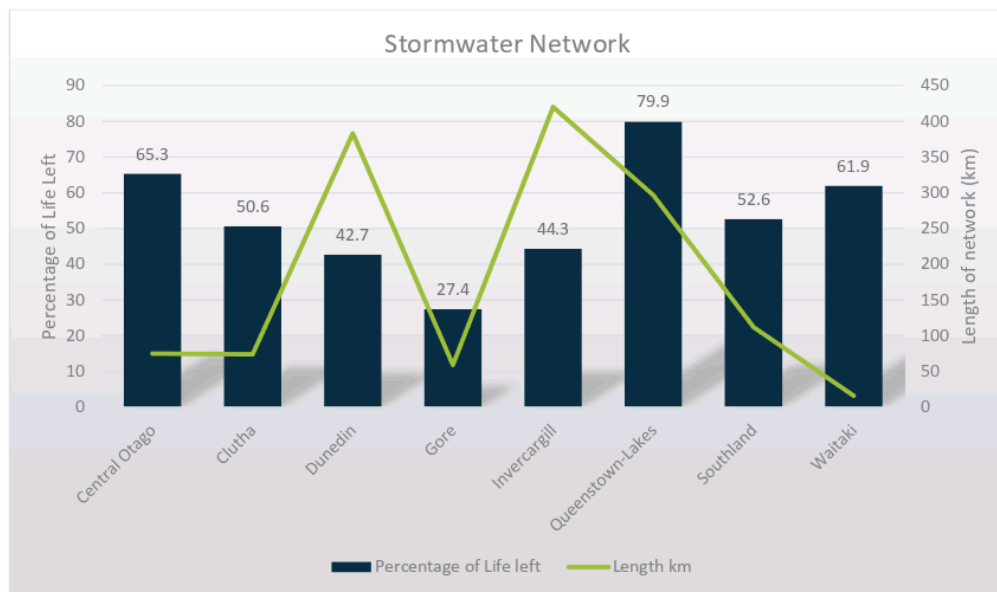
Asset remaining useful life

The stormwater networks vary considerably between councils in the amount of mean life remaining (Expected Useful Life / Base Life) ranging from 27.4% for Gore to 79.9% for Queenstown-Lakes. With the exception of Gore, Invercargill (44.3%) and Dunedin (42.7%), all councils have a mean of over 50%. Whether the average age is mirrored in the timing and volume of impending renewals will depend on a number of factors including asset management practices, environmental conditions and the accuracy of condition assessment and base life estimation.

Dunedin and Invercargill are among the three oldest networks and also have a high proportion of the pipes with less than ten years remaining life. This pattern is also repeated for their stormwater and water networks suggesting a significant investment in renewals will need to be managed in the near future.

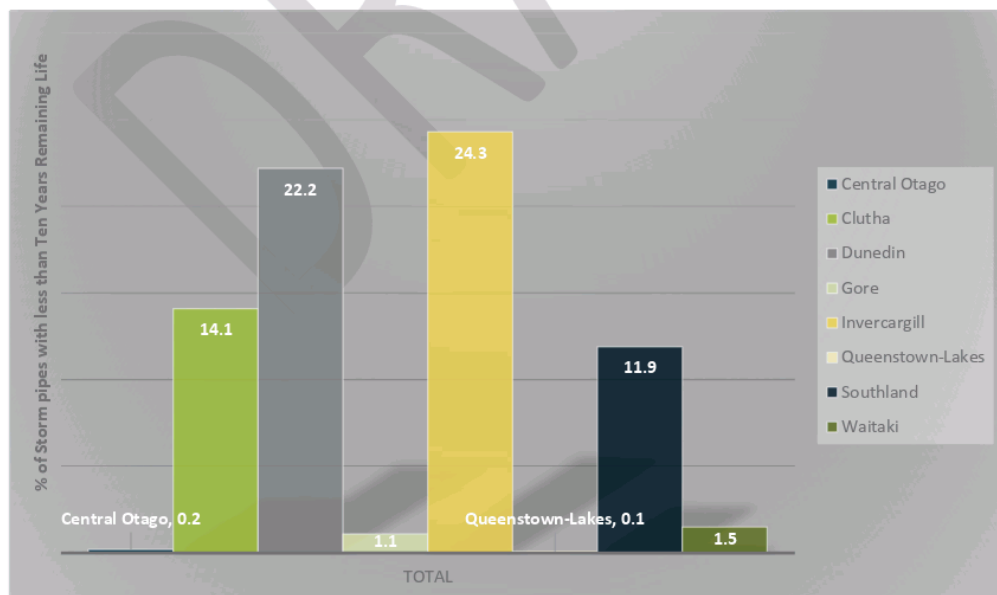


Figure 79 Asset consumption of the stormwater network



Another measure of consumption is the percentage of the network with less than ten years life remaining. This measure shows that Invercargill (24.3%), Dunedin (22.2%), Clutha (14.1%) and Southland (11.9%) have significant amounts of their network nearing end of expected life.

Figure 80 Stormwater network with less than ten years remaining life





Appendix Two Projected cost methodology

In order to calculate estimated operating costs in 2031, in today's dollars, the following approach was adopted:

- Removing inflation from revenue forecasts in each RFI, using the inflationary factors disclosed by each council individually.
- Take the cost coverage percentage from our earlier analysis and apply this to forecast revenue to determine a total operating cost in 2031.

We then compared the forecast operating cost in 2031 with our own projections, that included a consideration of forecast borrowing costs, increased depreciation and increased operating costs. In completing these projections we assumed that investment in renewals would not add additional depreciation, financing or operating costs²⁶.

Note that our analysis has not included any additional operating costs relating to additional compliance, monitoring and regulation activity. We are aware that Hastings District Council experienced a significant uplift in costs of water service delivery following the Havelock North water incident however we have not seen any indication of such a scale of cost uplift in any of the councils in the Otago and Southland regions.

We have also not allowed for any increase in operating costs associated with servicing a larger population, although we note that Queenstown has forecast that its water connections will increase by over 30% in the period.

²⁶ With the exception of the \$758 million of additional renewals for Dunedin which we have assumed would need to be externally financed

Appendix C - SDC Impacts Assessment



SOUTHLAND
DISTRICT COUNCIL
Te Rohe Pōtae o Murihiku



Impacts assessment
Southland District Council
June 2021



Document status

Job #	Version	Approving Director	Date
257801	DRAFT	D Bonifant	12 May 2021
257801	V1	D Bonifant	31 May 2021
257801	V2	D Bonifant	18 June 2021

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Executive summary

About this report

This report was written by Morrison Low and commissioned by the Otago Southland Three Waters Office on behalf of Otago and Southland councils. Each territorial authority in the area has received a similar report.

The report is the output of a wider review, the overall purpose of which is to provide Otago and Southland councils and their communities with the information they need to understand the impact of three waters reform.

The report assesses the impact of three potential future scenarios for three waters service delivery in Southland District. It also provides a recommended way forward. The recommendation is in the opinion of Morrison Low, and is based on its evaluation of the evidence and wider experience of the sector and the reform process.

Why undertake a review?

The New Zealand Government is reforming how drinking water, wastewater and stormwater (three waters) services are delivered across New Zealand. In a Cabinet paper released on 20 November 2018, the Government indicated that alongside regulatory changes there may be major structural reform of the water sector. It described a system facing significant issues where:

“the scale of the challenge indicates that the status quo is not sustainable in the long term”.

Among the key issues identified were weak regulation, capability challenges (particularly for smaller councils) and funding and financing issues for upgrading infrastructure.

Since then the reform has continue at pace. A new regulatory authority to oversee, administer and enforce a revised three waters regulatory system, Taumata Arowai, has been created. The Water Services Bill has been introduced to the House and will reform the regulation of New Zealand’s three waters networks. Over the last 12 months the government has further revitalised the three waters reform programme engaging with the sector on a timetable for change, developing a preferred delivery model and announcing funding for councils that enter into structural change.

It is in that context the councils of Otago and Southland commissioned a series of reports seeking to understand the impact of three waters reform on their communities and their organisations. This report provides each council with that information and in doing so draws upon aspects of previous reports provided to the councils by Morrison Low.



Change is inevitable

Significant changes will flow from the three waters reform that has already taken place and will take place regardless of whether Councils opt in or opt out of the proposed water entities. Legislative, regulatory and community expectations of standards are changing. There is therefore no status quo option. Three waters service delivery will change and every council in New Zealand must change in some way. The only means by which the future standards can be complied with is investment.

**Investment to meet
changing standards will be
required in infrastructure,
people, process and
systems**

The question for Southland District Council (SDC) is whether that challenge is best met through the current service delivery model or through a dedicated three waters entity.

The case for change is made more complex in that each council must make its own decision about whether to opt out of the government process to create regional water entities. Each council must make that decision based on what is best for its community. However, it is evident that the national and regional context still remains relevant to the local decision.

What did the review consider?

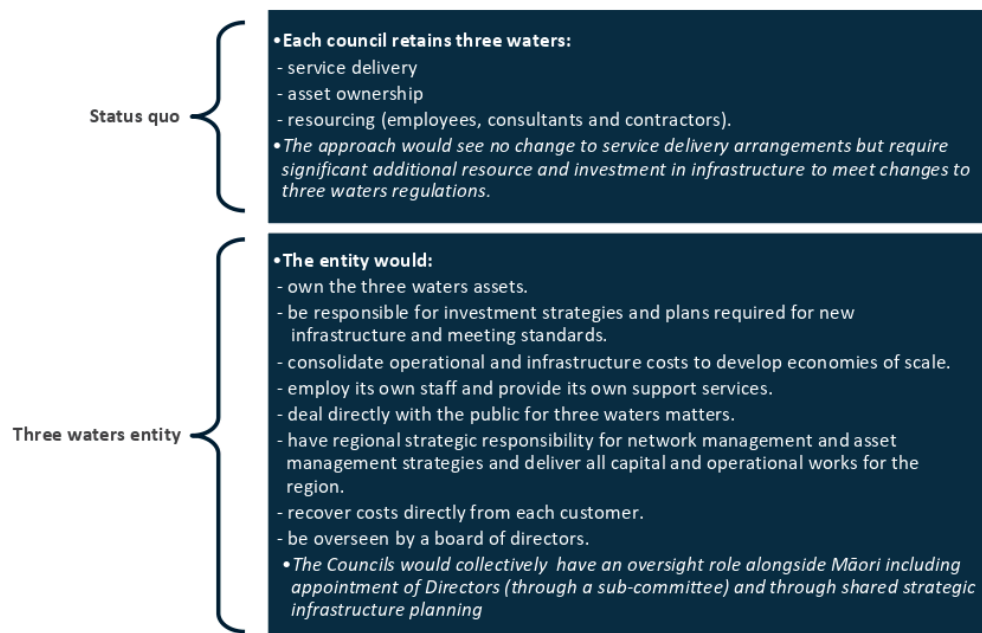
While there may be alternative options available to address some of the challenges outlined in this report, as a result of increasing clarity from the government the review ultimately focussed on two options. The current model and a regional water entity.

The original scope for the Otago and Southland three waters collaboration efforts was to review the merits of a regional water entity. As the review progressed it became apparent that the Government's preferred option is for an entity covering either the Ngāi Tahu Takiwā, or possibly the entire South Island. Further, as part of evolving discussions via LGNZ 'Zone' meetings across neighbouring regions, the Ngāi Tahu Takiwā option was identified as a preferred option should there be an opportunity to influence Government's proposal. As such, throughout this report, where possible consideration of the impacts of this option has been integrated.



The differences in delivery model between a three waters entity (irrespective of its size) and the status quo are outlined below:

Figure 1 Comparison of different delivery models



How was the review carried out?

The eight territorial authorities of Otago and Southland (the Council's) jointly commissioned a review of three waters service delivery in December 2020. The review was in response to the government three waters reform programme and in commissioning the review, the Council's acknowledged the existing reform programme:

"Both central and local government acknowledge that there are broader challenges facing the delivery of water services and infrastructure, and the communities that fund and rely on these services. There has been regulatory failure, underinvestment in three waters infrastructure in parts of the country, and persistent affordability challenges, and additional investment is required to increase public confidence in the safety of drinking water and to improve freshwater outcomes¹."

¹ Excerpt from Otago Southland three waters office RFP for three waters service delivery review



Ultimately the purpose of the review was to provide the councils and their communities with the information they need to understand the impact of three waters reform. Over the course of the review the nature, direction and timeframe of reform became increasingly clear.

A series of workshops were held by DIA during March 2021 which provided some new information regarding Government's proposed entity design and structure. The draft governance model for regional water entities includes input from constituent councils and Iwi representatives within a Governance Representative Group. This group is responsible for appointing an independent selection panel (who are in turn responsible for appointing a board of directors), as well as for the development of strategic and performance expectations that are used as guiding documents for the entity.

While no official boundaries for an entity have been formally proposed, there have been suggestions that either a single three waters entity covering the entire South Island, or an entity covering the Ngāi Tahu Takiwā (with Nelson, Marlborough and Tasman being part of the lower North Island) is likely.

The review was structured with multiple concurrent workstreams:

- Work Stream 1 - Network and Service Delivery Analysis
- Work Stream 2 - Financial Assessment
- Work Stream 3 – People and Capability Assessment
- Work Stream 4 - Options Development and Evaluation
- Work Stream 5 - Shortlist Options Impact Assessment for each of the Member Participants

As the nature of the three waters reform became clearer some amendments were made to the process and scope. For example, there was little point progressing the "options development" work stream when the options were significantly reduced with the evolution of the government option. As the work and programme of reforms progressed it became evident for the Otago and Southland three waters collaboration that the options were essentially limited to opting in or opting out. Whilst opting out has the potential to involve a number of variants, including enhanced status quo, or an alternative unfunded entity design, ultimately the decision for each Council remains whether or not to opt in.

- Workstreams 1 – 3 were reported in the Regional Situational Analysis dated February 2021 and the Current State dated March 2021.
- Workstream 4 and 5 are set out in this report.

The decision to be made

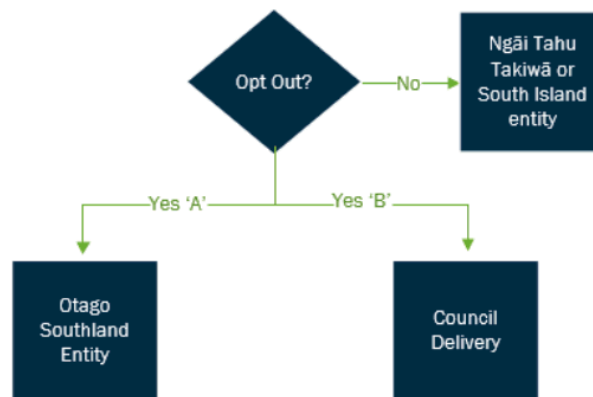
In late 2021 councils are expected to be asked to either opt out of the three waters reform programme or by deciding not to opt out, opt in to the reform process. At this stage, we anticipate that by not opting out a council will be agreeing to transfer the ownership of its three waters assets, and the consequential transfer of its service delivery responsibilities, human resources, debt, and revenue relating to the three waters in 2023.

While the boundary maps for the proposed three waters entities have not yet been formally publicised, it is likely that as part of that decision process the councils in the Otago and Southland regions will be presented with an entity that covers either the entire South Island, or the Ngāi Tahu Takiwā.



The choices that are likely to be faced by councils in Otago and Southland are outlined in the below chart.

Figure 2 Council's decision point



Analysis within this report is predominantly focussed on the three option variants identified in the diagram above.

Three waters at Southland District Council

To usefully understand how the different options regarding opting into, or out of, the proposed reform programme may impact Southland District Council, it is necessary to first understand the existing and emerging challenges and opportunities for the delivery of three waters in the district.

Three waters at Southland District Council

Southland District Council manages the delivery of its three waters services through its Services and Assets group that includes a Strategic Water and Waste team. Within this team are Asset Management, Engineering Services and Capital Delivery resources. There are 13 FTE working on water in this team including 4 current vacancies. Professional services and physical works are delivered by contractors.

SDC's drinking water levels of compliance and levels of service are good for the Otago-Southland region, with over 56% of its total drinking water supplied receiving chemical treatment, and only 4% (or one treatment plant) receiving simple disinfection only. Southland also had the lowest rate of mains bursts per 10km, and the second lowest rate of unplanned water service interruptions per 1000 properties in the Otago-Southland region in 2020

However, only 12% of the wastewater treated in SDC is subject to tertiary level treatment, and 73% of treated wastewater is discharged to freshwater environments. This combined with a high number of consent renewal programmes being planned over the next ten years may create significant future investment challenges as increasing environmental standards and cultural expectations may drive costs higher than what is currently provided for.



The required future investment for three waters services in SDC will see three waters debt exceed \$78 million by 2031, and total Council debt exceeding \$136 million. Council's debt to revenue ratio rises to 120% but remains well below the LGFA threshold. Council is therefore able to debt fund the required level of investment but at that level three waters will start to impact the extent to which other activities and services can use debt.

Our forecasts anticipated that the increased investment requirements, and associated impact on annual operating expenditure may result in three waters charges being as high as \$1,953 (uninflated) by 2031. Despite being an almost 210% increase on current charges, these are likely to be among the lowest three waters charges in the Otago and Southland region.

Other challenges for SDC to consider in relation to the local case for change includes access to skilled workers and technical expertise both within Council and in the local contracting market. With the forecasted increases to the programme of work across three waters locally, regionally and nationally, it is evident that local resourcing may struggle to keep pace with demand.

Overall there is no burning platform with three waters, at the local level, for SDC to change.

Comparing the options

A comparison of the benefits, risks, challenges, and opportunities for three waters service delivery for Southland District Council under each of the proposed options are presented in the table below.

The table highlights differences between each of the options around:

- Governance
- Compliance and levels of service
- Infrastructure investment
- Financial considerations
- Capability and capacity
- Risks of councils opting out
- Challenges with the transition process



	Council delivery model	Otago Southland	Ngāi Tahu Takiwā or South Island entity
Governance	<p>Governance of three waters generally Governance of three waters in Southland is provided by elected members through the Services and Assets committee and in the case of three rural schemes, through water supply committees.</p> <p>Embedding of Te Tiriti o Waitangi and Te Ao Māori Governance of three waters service delivery at Southland District Council currently does not involve any formal participation from Iwi or local Runanga.</p> <p>There is no legislative restriction to enabling this at a later date.</p> <p>Local representation Water services are currently provided through a model with elected council representative and elected community boards. Residents of Southland can approach Council about any issues regarding the levels of service that they receive.</p>	<p>Governance of three waters generally Governance of three waters would be provided by a skills and merit-based board of directors who have a sole focus on the delivery of three waters services and subject to different liabilities than Councilors.</p> <p>Embedding of Te Tiriti o Waitangi and Te Ao Māori The model provides the opportunity to deliver on treaty principles and co-governance with Māori from the outset within a new purposely built framework reflecting Te Mana o te Wai.</p> <p>The development of a co-governance model will require Councils and Māori to participate in what may be a resource intensive process and this needs to be supported by external funding.</p> <p>Local representation A potential loss of community influence over priorities and service levels by removing governance from the democratically elected Council into a board of professional directors.</p> <p>The relationship between water 'customers' and the service provider as an Otago Southland water entity would essentially become similar to an electricity company.</p>	<p>Governance of three waters generally Governance of three waters would be provided by a skills and merit based board of directors who have a sole focus on the delivery of three waters services.</p> <p>Embedding of Te Tiriti o Waitangi and Te Ao Māori Alignment of the entity with the Ngāi Tahu Takiwā provides a greater ability to embed Te Ao Māori within the governance of three waters services.</p> <p>The costs to develop a fit for purpose co-governance model are unlikely to be significantly higher with a larger entity.</p> <p>Local representation This issue will likely be magnified if the entity was responsible for the entire Ngāi Tahu Takiwā, as SDC would be a smaller part of a much larger entity.</p> <p>Again, if the entity was responsible for the entire Ngāi Tahu Takiwā this perception of a lost connection and of lost community assets would likely be greater.</p>



	Council delivery model	Otago Southland	Ngāi Tahu Takiwā or South Island entity
Compliance and Levels of service	<p>Regulatory compliance Southland DC's current levels of service are typically good; however, it may differ between townships and schemes.</p> <p>While SDC is currently generally compliant with wastewater consents, only 12% of its wastewater is subject to tertiary level treatment, and 73% is discharged to freshwater.</p> <p>Regulatory standards will increase in the near future, and in order to meet these standards in the future SDC will need to make significant investments in its three waters assets.</p> <p>Private schemes SDC is a predominantly rural council, and in our experience, these areas are likely to have a large number of private supplies.</p> <p>Council is currently the supplier of last resort under the Water Services Bill. This means that Council may be obligated to ensure continued water supply if schemes fail.</p> <p>Rural water schemes SDC has a number of rural water schemes that provide reticulated water (with varying levels of treatment) to rural properties with the additional purposes of irrigation and stock water.</p>	<p>Regulatory compliance A regional water entity is able to provide improved asset management, improved management of risk and will be better placed to meet any increased compliance requirements or increased environmental standards than the Councils can individually.</p> <p>It will allow for consistency between the levels of service provided to residents of neighbouring districts.</p> <p>An entity's financial, human, and contracting resources will still be limited and investment will need to be prioritised across its service area.</p> <p>Private schemes The transfer of responsibility for three waters services entity from Council reduces its future liability for and costs of addressing the private supplier risk.</p> <p>These risks remain but transfer to the entire region rather than being concentrated on just SDC.</p> <p>Rural water schemes There is limited guidance about whether the government is proposing to transfer ownership of rural schemes to new entities or not, however from a risk perspective we would suggest that councils seek to also transfer such schemes.</p>	<p>Regulatory compliance A larger entity covering all, or most, of the South Island will allow for a greater degree of consistency of levels of service between districts.</p> <p>However with a larger service area comes a greater need to prioritise where investment occurs first.</p> <p>Private schemes The transfer of responsibility for three waters services entity from Council reduces its future liability for and costs of addressing the private supplier risk. These risks transfer to the entire region rather than being concentrated on just SDC.</p> <p>Rural water schemes There would be no substantial difference in the treatment of rural water schemes between a Ngāi Tahu Takiwā sized entity, a South Island entity, or indeed an Otago-Southland entity.</p> <p>The incidence of rural water schemes in the rest of the South Island is high enough that the schemes will require a similar level of attention in any entity model.</p>



	Council delivery model	Otago Southland	Ngāi Tahu Takiwā or South Island entity
	The incidence of private household connections to these schemes may or may not be known or approved by council and may currently present potential health and compliance risks.	A new water entity will need to understand the nuances of providing water to such schemes however, including differences in charging regimes and potential price differentiation.	
Infrastructure investment	<p>Scale We have projected that SDC will need to invest approximately \$151 million on three waters infrastructure over the next 10 years.</p> <p>Delivery of capital works Southland DC delivered 81% of its capital works program in 2020.² The forecast capital expenditure over the next 10 years for Southland would require annual capital works delivery of a similar scale.</p> <p>Capital works delivery may be harder if SDC is competing with a large water entity for contractors.</p> <p>Renewals SDC plans to invest the lowest amount in the renewal of its network (when compared to annual depreciation) of all councils in the two regions. However, SDC's network is relatively young with many assets not yet at the end of their useful lives.</p>	<p>Scale Between \$2.3 – 4.7 billion needs to be invested in three waters infrastructure in Otago and Southland over the next 10 years.</p> <p>Delivery of capital works Will still be challenging with the regions needing to increase capital delivery by over 130% compared to the amount delivered in 2020.</p> <p>However, an entity may have an improved ability to coordinate a long-term sustainable program of works which may enable the contractor market to confidently scale up its resources and may reduce inter-district competition for contracting resource.</p> <p>Any improvement in capital works delivery under an entity model will take some time to transpire.</p> <p>Renewals Planned renewals investment across Otago and Southland is substantially lower than our estimates indicate it should be based on age alone.</p>	<p>Scale Between \$8 – 9 billion needs to be invested in three waters infrastructure in the Ngāi Tahu Takiwā.</p> <p>Delivery of capital works Delivery is still likely to be challenging until such time as the labour market is able to respond.</p> <p>Would have an enhanced ability to send strong market signals and long term, significant capital works programs that would provide contractors with sufficient certainty of work that they are able to scale up appropriately.</p> <p>Any improvement in capital works delivery under an entity model will take some time to transpire</p> <p>Renewals Planned renewals investment across the Ngāi Tahu Takiwā is about equal to our estimates based on age, however there are shortfalls and surpluses at district level.</p> <p>A Ngāi Tahu Takiwā sized entity would have a large enough renewals budget to address the needs of each district.</p>

² Note that delivery of the capital works programme in the 2020 financial year was impacted by Covid-19 restrictions



	Council delivery model	Otago Southland	Ngāi Tahu Takiwā or South Island entity
	<p>Growth While SDC is not traditionally considered to be a growth council, some of its townships (e.g. Te Anau and Riverton) have, and are likely to continue to, experience significant growth.</p> <p>Council has control over the timing and location of its investment in growth infrastructure to attempt to facilitate or respond to growth when it occurs.</p> <p>District planning activities currently consider a range of factors to determine new areas for development, with infrastructure being only part of this equation.</p>	<p>However, differing age profiles across the two regions mean that there may be opportunities to smooth the renewals programme better at a regional level.</p> <p>Growth SDC no longer has control over timing and location of investment in growth infrastructure. There will be a need to ensure that the foundation documents and governance structures retain an appropriate balance between the individual priorities of each council with regional priorities including planning and supporting growth.</p> <p>An entity may have different priorities or timeframes over growth investment in SDC. District planning will require interface with a three waters entity which may have different motivations when identifying new development areas.</p>	<p>Growth The challenges of coordinating and managing competing growth and investment priorities across a larger number of councils may be increased.</p> <p>However, the entity will also have increased capacity to be able to address these issues and challenges.</p> <p>An entity may have different priorities or timeframes over growth investment in SDC. District planning will require interface with a three waters entity which may have different motivations when identifying new development areas.</p>
Financial assessment	<p>Debt and borrowing capacity SDC is forecast to have three waters debt exceeding \$78 million and total council debt exceeding \$138 million by 2031.</p> <p>SDC's additional borrowing capacity in 2024 (the estimated year of transition) would be \$168.9 million.</p>	<p>Debt and borrowing capacity Without three waters debt in 2024 (the presumed year of transition) Council's total borrowing would reduce from \$99 million to \$49 million and its additional borrowing capacity would increase to \$170.6 million.</p> <p>A three waters entity for Otago and Southland would have over \$1.9 billion of total debt and a debt to revenue ratio of 465% (which exceeds the limits for a Baa/Ba credit rating). This would result in a credit downgrade leading to increased</p>	<p>Debt and borrowing capacity Initial high-level estimates indicate a three waters entity covering the Ngāi Tahu Takiwā would have debt between \$6 – 6.5 billion and would exceed the debt to revenue lending covenants that are required for a Baa/Ba credit rating.</p>



	Council delivery model	Otago Southland	Ngāi Tahu Takiwā or South Island entity
	<p>Estimated household three waters charge SDC has an estimated household three waters charge in 2031 of \$1,953 (or a 209% increase).</p> <p>Water and wastewater charges would equate to approximately 2.4% of median household income in 2031.</p> <p>Financial resilience The forecast investment required in three waters across in all Councils in Otago and Southland has grown significantly since the 2018 LTPs and with the increasing focus brought by three waters reform there is considerable risk that these costs will continue to change and increase further.</p>	<p>costs of borrowing and possibly the need to prioritise investment between districts.</p> <p>A voluntary Otago-Southland entity would still have a balance sheet that is consolidated with its constituent councils without legislative change.</p> <p>Estimated household three waters charge A three waters entity would have an estimated three waters charge of \$2,001 in 2031. Water and wastewater charges would equate to approximately 2.4% of median household income in 2031.</p> <p>Financial resilience This option addresses the very real risk that the scale of investment required to meet new standards and community expectations is greater than forecast.</p> <p>A larger entity is better able to address the risk of future investment requirements being underestimated as it distributes costs over a larger customer base.</p>	<p>This would result in a credit downgrade leading to increased costs of borrowing. . It will also likely require further prioritization of investment between districts.</p> <p>Estimated household three waters charge A three waters entity covering the Ngāi Tahu Takiwā would likely have an average three waters household charge between \$1,700 and \$1,900.</p> <p>Financial resilience This option addresses the very real risk that the scale of investment required to meet new standards and community expectations is greater than forecast.</p> <p>A larger entity is better able to address the risk of future investment requirements being underestimated as it distributes costs over a larger customer base.</p>
Capability and capacity	<p>Southland District Council currently has 4 vacancies in its three waters group (30% of three waters roles).</p> <p>There is a shortage of specialist resources for three waters across New Zealand and internationally.</p>	<p>13% of all three waters roles are currently vacant in the Otago and Southland regions.</p> <p>A three waters entity would have sufficient scale to create strategic capacity and capability across the region and support the areas where that is currently lacking.</p>	<p>Increasing size and scale creates greater opportunities for staff and improves its capacity to train and develop expertise. Larger entities are also further insulated from ebbs and flows in the size of the workforce.</p>



	Council delivery model	Otago Southland	Ngāi Tahu Takiwā or South Island entity
	As water reforms occur across New Zealand there is likely to be increased competition to attract and retain the specialist skills in water that are necessary to enhance delivery	Scale, strategic capacity and capability gives a level of expertise and resilience in three waters that can be applied regionally, benefitting all ratepayers of the region rather than only some. Greater depth in planning and programming is also expected to help deliver the increased capital programme required to implement change in three waters.	
Risk	A number of the challenges highlighted with the current and emerging service delivery will be exacerbated. If SDC “opts out”, while other councils “opt in” to reform, SDC is likely to be competing with a large water entity for contractors and internal resources and capability.	There are a significant number of unknowns with the government proposal including: <ul style="list-style-type: none"> – Entity design. – Council’s roles as owner and governor. – Mechanisms to prioritise local investment. – Coordination of planning and investment. – Interfaces with stormwater and the extent to which stormwater assets and functions will be transferred. – Community input and role. – Allocation of liabilities, land ownership. Without the critical mass of all councils there is a danger that the benefits of change will be substantially reduced or lost. That is particularly the case if the population centres of Dunedin, Invercargill and Queenstown were not involved.	There are a significant number of unknowns with the government proposal including: <ul style="list-style-type: none"> – Entity design. – Council’s roles as owner and governor. – Mechanisms to prioritise local investment. – Coordination of planning and investment. – Interfaces with stormwater and the extent to which stormwater assets and functions will be transferred. – Community input and role. – Allocation of liabilities, land ownership. A larger entity would be more resilient to some councils opting out of the process. However, the absence of the population centres of Christchurch and Dunedin would still create some challenges.



	Council delivery model	Otago Southland	Ngāi Tahu Takiwā or South Island entity
		Ability to form an Otago Southland entity is a significant risk (unless it emerges as the governments option) as Councils must opt out of reform, and then subsequently engage, commit and fund a voluntary reform process without a suitable structure to do that.	In order to make an informed decision about the benefits or otherwise of opting into reform, it would be helpful to understand the likely position of each council, which will be more challenging with a larger proposed entity.
Impact of transition	There would be no transition, however Council may lose resources to new water entities or transitional bodies in areas where councils have opted into the reform process.	<p>Uncertainty created by the potential change can and will affect existing staff. Attraction, recruitment and retention of key staff is a particular concern for the councils.</p> <p>As this option entails opting out of reform, it is likely that any transition costs (which are likely to be significant) will need to be met by councils.</p>	<p>The issues regarding transition do not differ for a larger water entity.</p> <p>Enforcement of standards during the transition period will need to be carefully managed by Taumata Arowai if council's have a reduced workforce due to staff accepting roles with transition entities.</p> <p>It is anticipated that any costs of transition would be funded by the Government.</p>

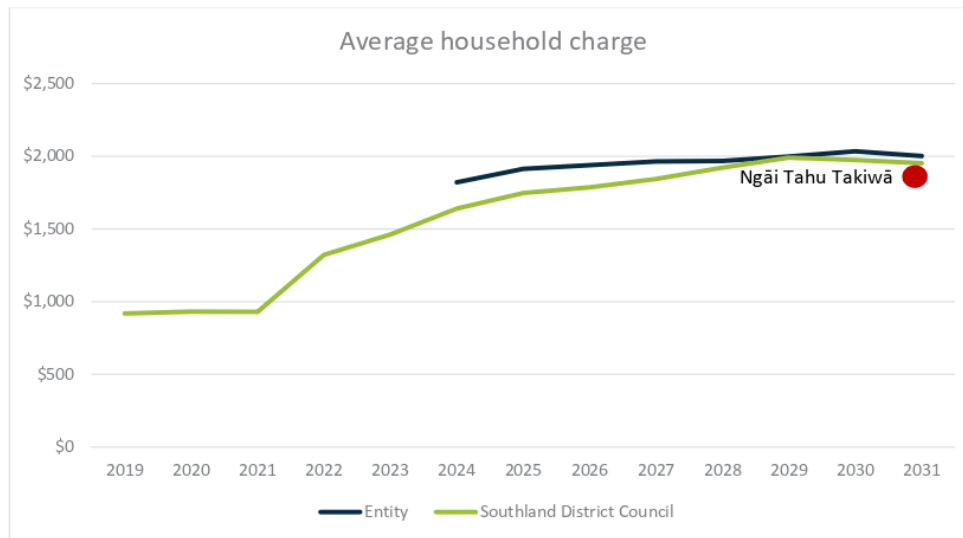


Comparison of household charges

The impact of future investment requirements on household charges has been projected over the ten year long term plan period and is outlined in Figure 3 below. The chart shows household three waters charges reaching:

- \$1,953 under a continued council service delivery model
- \$2,001 in an Otago-Southland three waters entity, and
- Between \$1,700 - \$1,900 in a Ngāi Tahu Takiwā entity.

Figure 3 Average annual household charge – three waters entity



A Council without three waters

The removal of three waters from Council itself would clearly create some disruption to Council's current operating structure, which in some cases may be significant. Some of the key issues that may arise from the removal of three waters services from Council are outlined below:

- There would be a reduction in Council's resources of around 15 FTE including 13 of the 17 FTE in the Strategic Waste and Water team, 1 FTE providing GIS support and 1 FTE providing Customer Service support. Due to the size and breadth of the three waters service, in our view there are likely to be minor impacts on staff involved indirectly in the delivery of the service.
- SDC will in our view need to review its structure and service delivery model to most effectively be a local government organisation providing a wide range of services and activities to its communities. The full extent of the impact on council will be more easily identified once the outcomes of the Resource Management Act and Future of Local Government reviews are complete.



- The formation of large well-resourced water entities across New Zealand may exacerbate the resourcing challenge for Council. While most engineers involved in three waters will transfer to a new entity, councils will still require skilled engineers to deliver roading, waste, and other major capital works. In many cases, engineers in councils are involved in many different projects and activities and if councils are no longer responsible for three waters, these staff may no longer find their roles are appealing or challenging.
- SDC's three waters debt would disappear leaving the Council better able to borrow for investment into other activities or services.
- Total revenue from Council in 2024 without three waters revenue would reduce from \$96.3 million to \$78.5 million but due to the greater reduction in revenue than operating costs, there is likely to be approximately \$3 million of unfunded expenditure which may be stranded in Council.

Stranded overheads for SDC in 2020 are estimated to be around \$149 per property. Given this is around 15% of current three waters rates it is likely to be a significant cost which will remain with SDC ratepayers. It is unlikely that these stranded overheads would be absorbed or be able to be reduced by Council over time and would be continue to be funded by Council rates but may be appropriately considered to be part of the total cost of water for SDC ratepayers.

Summary

Due to increasing standards and requirements, a change to the way three waters services are delivered is inevitable. The form that this change takes is a decision for SDC to make, and this report presents information to assist with making this decision.

The arguments for and against the opt in or out decision are presented below, alongside the relevant risks of each decision. For simplicity, we note that the opt out decision discussed below relates to SDC opting out of reform and continuing with its existing service delivery arrangements.

The option to opt out of reform and pursue voluntary change into an Otago Southland three waters entity in our view has a very low chance of success and risks Council being left as the service provider. The option requires a coordinated and consistent approach across all of the councils in Otago and Southland. All eight councils in the two regions must opt out of the Government's reform process but have a desire to aggregate three waters services at a more local level. They must then go through a detailed entity design process, fund the transition and entity design process themselves, consult with their communities on the same proposals and ultimately agree. There are limited examples of this being successful in New Zealand and none where asset owning has been part of the model.

In the event that an Otago-Southland water entity emerges as the Government's preferred option, most of these challenges will disappear.

Opting in

Arguments for

- A regional water entity will have increased capability and capacity of three waters staff, depth of expertise and increased organisational resilience to changes in staffing levels.
- A three waters entity would have a skills based board with a single focus on three waters issues and would have an enhanced ability to embed the principles of Te Tiriti o Waitangi and Te Ao Māori



within its governance framework. There would be no competing interests for investment requirements and funding.

- A three waters entity would have greater financial and technical resources to be able to address compliance issues and make the investment required to comply with new environmental, health, and cultural standards. A three waters entity would also assume most of the risk associated with rural water supplies and private water schemes.
- Average household charges for three waters services are likely to be lower under a three waters entity covering the Ngāi Tahu Takiwā and a three waters entity would have significantly improved financial resilience. When the impact of stranded overheads is considered three waters charges are likely to be similar under the current delivery model and a three waters entity covering the Ngāi Tahu Takiwā.
- Government financial incentives are expected for councils who opt in to the reform process.

Arguments against

- SDC may experience some increased challenges to recruit engineering staff and asset managers to support its remaining activities due to increased competition with a three waters entity and a reduction in variety of work although the effects of this may be limited to certain roles within the organisation.
- There will be a number of new challenges introduced relating to the prioritisation and coordination of investment in three waters infrastructure across the region. SDC will no longer control the timing and location of investment. Instead it will be a shared responsibility.
- There may be a loss of local representation, which would be worse with an entity covering the South Island or the Ngāi Tahu Takiwā.
- A three waters entity would face higher borrowing costs, and a potential credit downgrade, if it were to deliver the full capital works programme for the areas that it covers. We believe this to be a national problem, which is more likely to be able to be solved with a small number of water services providers.

Risks

- Delivery of the full capital works programme at an Otago Southland level, or even with a larger entity would appear challenging. There is a risk that a larger three waters entity may not be able to generate improvements in terms of capital works delivery.
- Without critical mass of all councils there is a danger that the benefits of change will be substantially reduced or lost. This is particularly the case if the population centres of Dunedin, Invercargill, Christchurch, and Queenstown were not involved. A Ngāi Tahu Takiwā would be more resilient to this.
- As a three waters entity may have limited access to sufficient debt to fund its full investment programme, it may need to manage competing investment demands from different districts (and to achieve different outcomes, e.g. servicing growth versus improving compliance). There is a risk that these priorities may not align with local priorities.
- There are still a number of unknown factors about entity design which may have a significant bearing on the comparison of an “opt in” option with an “opt out” option. These include issues regarding:



- Entity design.
- Council's roles as owner and governor.
- Mechanisms to prioritise local investment.
- Coordination of planning and investment.
- Interfaces with stormwater and the extent to which stormwater assets and functions will be transferred.
- Community input and role.
- Allocation of liabilities, land ownership.

Opting out

Arguments for

- The required level of future investment in infrastructure would appear to be manageable, both financially and in terms of ability to deliver, for SDC based on current forecasts. SDC's debt is predicted to remain well within LGFA lending covenants, and it has previously delivered a similar level of capital works as it is forecasting to require in future years. However, delivery of the full capital works programme at an Otago Southland level, or even with a larger entity would appear challenging.
- A three waters entity would not have the borrowing capacity to be able to deliver the full capital works programme for the areas that it covers without suffering a credit rating downgrade and consequently, higher costs of borrowing. In contrast, SDC is currently projected to have sufficient financial headroom to be able to fund its forecast capital works programme.
- SDC is able to determine the timing and level of investment it makes into its three waters infrastructure if it retains control of its three waters assets. Increasing regulatory enforcement and standards will still be a significant driver for determining the timing and type of investment.
- There may be alternative options available to council to address many of the potential challenges with continued council service delivery of three waters. These options were not explored as part of this review.
- Household charges are not likely to be substantially higher under a continuation of the council led service delivery model than they would be under a Ngāi Tahu Takiwā or Otago Southland water services entity.
- There is nothing to prevent Council from incorporating formal processes for consultation or engagement with local Iwi or Runanga in decision making for three waters matters.
- SDC has a number of tools at its disposal to address affordability issues within the district (such as the use of rating differentials, UAGCs, rates postponement policies, and rates remissions) which may not be available to a water services entity.

Arguments against

- Council is making its opt out/opt in decision within the context that every other council in New Zealand is also making that decision. In many cases there is a strong and very strong case for change. The ratepayers of six of the eight councils in Otago Southland would, in our view, have lower water charges under a regional water entity, but this reduces to five when stranded costs are taken into



account. The ratepayers of all eight would be better off in a Ngāi Tahu Takiwā. If SDC opts out while other councils opt in, the ability to attract staff or deliver its capital works programme will be further diminished as it will be a small organisation competing with much larger entities. This may also impact on the cost of completing work in Southland.

- While SDC is likely to be able to borrow enough to fund the required investment in three waters infrastructure, the amount that is will be required to borrow will impact on its ability to borrow to fund other activities, or to respond to emergencies.
- With a low (33%) of its population being connected to a council provided drinking water supply, and its predominantly rural environment, there is a significant risk that SDC has a large number of private drinking water schemes within its region, many of which will be non-compliant with future drinking water standards. By opting out, Council will be the supplier of last resort for customers of these schemes. This could present a substantial legal and financial risk for council.

Risks

- If SDC opts out while other councils opt in, the ability to attract staff or deliver its capital works programme will be further diminished as it will be a small organisation competing with much larger entities. This may also impact on the cost of completing work in Southland.
- Any incentives that come with the current reform process will not be available to councils if they opt out of the process. Further, while the costs of transition to the new entities will be covered by the government as part of the current reform process, it is possible that councils that later opt to join any three waters entities may face costs to join or transition to these entities.
- The risks and challenges with future water service delivery in Southland would be significantly increased if the other councils in Otago Southland and the South Island more generally opt in to the reforms.



Introduction

Background

The New Zealand Government is reforming how drinking water, wastewater, and stormwater (three waters) services are delivered across New Zealand. The reforms began in response to the issues identified following the Havelock North drinking water contamination in 2016 and culminated in a Cabinet paper released on 20 November 2018 where the Government indicated that alongside regulatory changes there may be major structural reform of the water sector. It described a system facing significant issues where:

“the scale of the challenge indicates that the status quo is not sustainable in the long term”.

Since that initial cabinet paper in November 2018, the Government has further progressed regulatory reform for the delivery of drinking water, including through the establishment of *Taumata Arowai - the Water Services Regulator* and the progression of the Water Services Bill to select committee in December 2020. A cabinet paper of December 2020 also confirmed the above reform objectives and the Government's desire to proceed. That cabinet paper also recommended that participation in further reform discussions be based on an “opt-out” decision process for councils with that decision to be made in mid-late 2021.

Significant changes will flow from the three waters reform that has already taken place and will take place regardless of whether councils opt in or opt out of the proposed water entities. Legislative, regulatory and community expectations of standards are changing. There is therefore no status quo option. Three waters service delivery will change and every council in New Zealand must change in some way and the only means by which the future standards can be complied with is investment.

**Investment to meet
changing standards will be
required in infrastructure,
people, process and
systems**

The question for SDC is whether that challenge is best met through the current service delivery model or some other solution.

- **Opting in** to the government process will include financial and other incentives (that are not currently defined) and agreeing to transfer responsibility for the service, assets, responsibilities, duties and liabilities for three waters to a dedicated water entity that is not currently defined but expected to cover the Ngāi Tahu Takiwā and look similar to the proposed structure that the Government has presented to local government over March and April 2020
- **Opting out** of the government process means that either Council retain responsibility for three water service delivery or some other arrangement.



Scope of this report

In late 2020 the Otago-Southland Three Waters office commissioned Morrison Low to undertake a review to examine the impacts and options for three waters reform for the combined Otago and Southland regions. The review has been carried out within the context of the Government's reform programme and has been designed to ensure that it is best able to respond to the recommendations from that programme. In order to ensure that the review focuses on providing decision-makers with the evidence and information that they need to actively participate in conversations with the Government and their communities, this review has:

- Relied primarily on the same information set as is being used by the Government to develop its own recommendations and analysis.
- Been dynamic and responsive to the Government's timeframes such that the agreed deliverables for the review have changed in order to provide decision-makers with relevant information as quickly as possible.
- Compares only status quo (i.e. continued three waters service delivery by territorial authorities) with the Government's preferred option (i.e. transfer of three waters service delivery and asset ownership to a new three waters entity) and a voluntary reform option covering the Otago and Southland regions (which requires councils to "opt out" of the current reform process).

This is the third report by Morrison Low as part of its work assisting the councils of the Otago and Southland regions to further understand the challenges and opportunities facing the local government sector in their regions for the continued delivery of three waters services. The previous reports included:

- Our regional situational analysis – which outlined the high-level challenges with continued service delivery at a regional level based on high-level analysis of each council's response to the Government's Request for Information (RFI).
- Our cross-regional current state assessment – which examined the challenges and opportunities for three waters service delivery at a disaggregated level across the two regions.

This report has been tailored for Southland District Council (SDC) and examines the benefits and challenges of both retaining and transferring the service delivery of three waters as well as the impacts such a decision would have. It therefore provides the advice to SDC to help determine whether it should opt in or opt out of the government three waters reform programme.

To do so, this report draws on findings of the earlier two reports, and insights gained from our onsite visits to SDC and the other councils in the Otago and Southland regions (as relevant).

While the report attempts to assess the impact of the transfer of ownership and service delivery of three waters into an aggregated entity, we are unable to predict the extent to which the activities and services provided by local government may change (either statutorily or organically), and therefore only compare the immediate impact of the transfer of functions.

The information within this report should be considered to form only part of the total suite of evidence and information available to support decision makers.



Approach

This is the third report as part of our review of three waters service delivery for the Otago-Southland regions. This report builds on analysis undertaken in our earlier *Regional situation analysis* and *Cross regional current state assessment* reports and has been developed based on:

- A review of asset, service performance, and financial information provided in each council's completed RFI responses and asset registers.
- A review of organisational charts provided by councils to assist with the identification of affected roles and functions.
- Our findings from onsite interviews and meetings held at SDC.
- Detailed financial modelling of each council and an aggregated three waters entity.
- Consideration of impacts of community, governance and levels of service.

The financial information within this report should be considered to be directional only and assumes that councils increase their planned investment to levels that we consider are necessary, and are able to deliver that planned investment. It also ignores the political environment in which rates are set and borrowing is drawn down and the trade-offs that must be made between affordability and levels of service.

Differences between data

The financial analysis set out in this report may differ (but is directionally consistent) with our earlier financial analysis, as the analysis presented herein relies on the results of detailed financial modelling which includes the use of standardised assumptions across the councils, and debt and investment optimisation. The full set of assumptions used in the modelling are outlined in Appendix B, and high-level sensitivity analysis is included in Appendix A.

It is also consistent with our analysis in the *Cross regional current state assessment*, which highlighted significant differences in asset unit rates. In that report we highlighted Dunedin's unit rates as being substantially higher than the other councils, and that Dunedin had a valuation completed as recently as late 2020. The impact of this assumption is outlined in Appendix A.

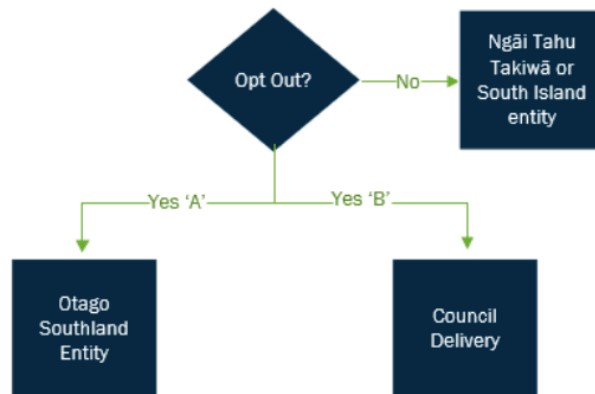
Alignment of report with three waters reform

The key question facing SDC is whether to opt out of the reform process or continue to opt in. There is a lot of uncertainty for Council. Chief of which is that the Government has yet to advise SDC (or any council) exactly what the option they are faced with is.

This report has been structured to give the best possible information to Council to support that decision. The figure below sets out our assumption for how the options considered in this report match with a decision to opt out of the reform or opt in.



Figure 4 Council's decision point





Current situation – Southland District Council

Three waters services

The delivery of three waters services in the future will be in an environment with increased health, environmental, and economic regulation. These regulations will require changes in services and service delivery. Meeting these changes is likely to be challenging for any provider of three waters.

Southland District is located in the Southland region of New Zealand and has an estimated population (as at June 2020) of 32,500 people. The district covers the largest geographic area of any council in New Zealand, covering over 29,000 km². The land area includes the Fiordland National Park, and the Rakiura National Park (which combine to cover almost half of the total land area in Southland).

The district looks to the city of Invercargill, and the township of Gore as its main centres, although neither of these centres are within SDC's territorial boundaries. The district includes the remote community of Stewart Island/Rakiura, as well as the townships of Te Anau, Lumsden, Riverton and Winton. In most cases, there are significant distances between major settlements, necessitating a network of small water and wastewater schemes.

The Southland District Council is made up of a Mayor and 12 Councillors and has 9 Community Boards. The Mayor is voted in "at large" and the Councillors are voted in by Ward. Each of the Wards have Community Boards. Each Community Board has a Ward Councillor appointed to it by Council.

Table 1 Financial summary of three waters service delivery

	Council total	Three waters	Net of three waters
Debt (2021)	\$19 million	\$37 million (194%)	Nil
Operating Revenue (2021)	\$79 million	\$18 million (23%)	\$61 million
Infrastructure assets (book value)	\$1,531 million	\$147 million (10%)	\$1,384 million

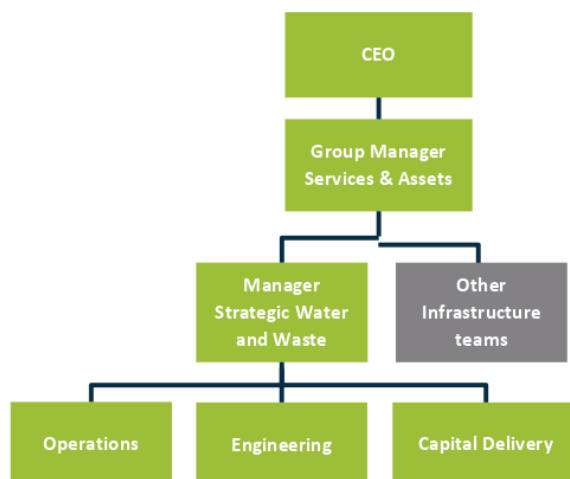
According to its completed RFI, in 2021 SDC is forecast to have \$19 million of external borrowings, and \$37 million of total debt related to the three waters infrastructure, this includes a large amount of internal borrowing.



Structure and resourcing

Southland has a Services and Assets group that includes a Strategic Water and Waste team. Within this team are Asset Management, Engineering Services and Capital Delivery resources. There are 13 FTE working on water in this team including 4 current vacancies.

Figure 5 Southland District Council three waters team structure



We have assumed that in the event that Council chooses to retain three waters services that it is unlikely to change its overall delivery structure.

Support for the strategic water and waste team is also currently provided by:

- Human Resources – who provide support throughout the employment lifecycle. The organisation has one HR manager and one senior HR advisor who both provide some support to three waters.
- Finance – who provide a dedicated three water accountant and business partner to support with budgeting, forecasting and project accounting up to 2 FTE.
- Capital Delivery Team – who support three waters to varying degrees depending on the size and scale of projects that need to be delivered at any particular time up to 1 FTE.
- Information Systems - who are responsible for software licensing, IT helpdesk services and GIS services. There are 2.5 FTE involved in the provision of GIS services across the organisations with 1 FTE focussing on water.
- Communications and engagement - who currently employ 9 FTEs and are responsible for all social media engagement, printed media, advertising, etc. Three waters are a high user of this service up to 1 FTE.
- Contact centre who take calls for water and non-water related issues. The contact centre currently employs 8 FTEs, and there may be some ability to reduce capacity by 1 FTE here with three waters removed.



SDC operates out of three offices within Invercargill (plus a number of district service centres), of which only one is currently owned by Council.

Key issues

SDC's drinking water levels of compliance and levels of service are good for the Otago-Southland region, with over 56% of its total drinking water supplied receiving chemical treatment, and only 4% (or one treatment plant) receiving simple disinfection only. Southland also had the lowest rate of mains bursts per 10km, and the second lowest rate of unplanned water service interruptions per 1000 properties in the Otago-Southland region in 2020.

However, only 12% of the wastewater treated in SDC is subject to tertiary level treatment, and 73% of treated wastewater is discharged to freshwater environments. This combined with a high number of consent renewal programmes being planned over the next ten years may create significant future investment challenges as increasing environmental standards and cultural expectations may drive costs higher than what is currently provided for.

The required future investment for three waters services in SDC will see three waters debt exceed \$78 million by 2031, and total Council debt exceeding \$136 million. Council's debt to revenue ratio rises to 120% but remains well below the LGFA threshold. Council is therefore able to debt fund the required level of investment but at that level three waters will start to impact the extent to which other activities and services can use debt.

Our forecasts anticipated that the increased investment requirements, and associated impact on annual operating expenditure may result in three waters charges being as high as \$1,953 (uninflated) by 2031. Despite being an almost 210% increase on current charges, these are likely to be among the lowest three waters charges in the Otago and Southland region.

Wider context

The nature, extent and pace of the three waters reform is now widely documented and understood. It will be far reaching and change service provision for three waters at a national level. This is relevant because Council's opt out/opt in decision will not be made in isolation. The decision of all other councils in New Zealand and particularly Otago and Southland has flow on impacts for SDC, its communities and the decision Council makes.

In July 2020 the government announced a \$500M three waters stimulus package to encourage councils to be part of the reform programme. There is expected to be incentives for councils to remain in the three waters reform programme, although at this stage we do not know what those are.

Equally, the government through Taumata Arowai, Regional Councils and the new economic regulator that will be established is expected to increase relevant standards and requirements and with greater resource and focus on compliance, create a regime that will hold the service providers to account far more strongly than in the past.



What options were considered?

Status Quo

Under this option Southland District Council would continue to retain responsibility, duties, obligations and liabilities for three waters:

- service delivery
- asset ownership
- resourcing (employees, consultants and contractors).

While this approach would see no change to service delivery arrangements, it will still require significant additional resource and investment in infrastructure to meet changes to three waters standards, regulations and the new regulatory framework where there is increased environmental, health, service and economic regulation of three waters.

Three water service delivery entities

The Government's three waters reform programme has a clear and open objective of transforming the delivery of three waters services through structural reform. This will involve the establishment of publicly owned, asset owning three waters service delivery entities and, should a council choose not to "opt out" of the process, the transfer of council's assets and liabilities into such entities.

If the delivery of three waters services and the consequential asset ownership is transferred to a new water entity, then any related funding, assets, resources, and liabilities are likely to be transferred with it. This would mean that Council would no longer be responsible for setting charges, managing investments, and borrowing or operating any of its current three waters services. The obvious, most immediate effects of this will be a reduction in revenue, operating expenses, assets, and debt.

Staff directly involved in the delivery of three waters services will also be transferred into a new entity, while some staff that support three waters may also transfer (predominantly those that are 100% supporting the delivery of three waters). Staff that spend only part of their time supporting three waters are likely to retain their roles within SDC, and there is sufficient workload within the organisation to ensure a continued meaningful role for these staff in the absence of three waters.

The two dedicated water entity options considered are

- Otago Southland - would include the territorial authorities with Otago and Southland, and most likely would need to be the result of a voluntary process that would take place outside of the current government driven reform.
- Ngāi Tahu Takiwā would include the areas encompassed by all South Island territorial authorities except Nelson, Tasman and Marlborough. This option is considered to be the most likely option under the government driven reform and is the "opt in" option.



The table below sets out high level information comparing potential aggregated water entities for Otago and Southland and the Ngāi Tahu Takiwā.

Table 2 Comparison of options for three water entities (2021)

	Otago Southland	Ngāi Tahu Takiwā
Number of Territorial Authorities	8	21
Replacement cost of infrastructure assets	\$11.2 billion	\$28 – 30 billion
Debt	\$1.93 billion	\$6 – 7 billion
Annual revenue	\$415 million	\$0.9 – 1 billion
Annual operating expenditure	\$383 million	\$0.9 – 1 billion
Water connections/ratepayers	About 141,000	About 420,000
FTE	Around 240	Over 500

Assumptions

The government has provided limited detail about the ultimate structure and design of the proposed three waters entities, and the mechanisms that will be put in place to ensure that they will deliver on the government's stated objectives and principles of reform. It is unclear whether this detail will be available at the time that councils will need to make their decisions.

For the purposes of this report we have assumed that the proposed entities will be able to deliver on these principles. The key assumptions about council service delivery, an Otago-Southland region entity and a Ngāi Tahu Takiwā regional entity are set out in Appendix B and C.

- **Appendix B** – Data and financial modelling including treatment of:
 - Asset values
 - Planned capital investment
 - Renewals
 - Depreciation
 - Use of RFI data
- **Appendix C** - Entity design including:
 - Governance
 - Ownership
 - Assets and debt
 - Stormwater
 - Revenue and charging



Assessment of the options

This section of the report presents an assessment of the options using a range of non-financial and financial criteria so that both the benefits and the challenges of each option in the future delivery of three waters services are considered. The section largely draws on analysis undertaken in our *Cross regional current state assessment* report, with additional information from our on-site visit of SDC and detailed financial modelling included.

Its aim is to provide a comparison of the impacts of three waters service delivery under aggregated delivery models, and under the status quo, to allow decision-makers to assess the impacts of reform on their council, and for their ratepayers.

Due to time constraints and the later emergence of the option we have not analysed the Ngāi Tahu Takiwā option to the same extent. Where appropriate and relevant we have provided high level commentary on how the impacts of a larger entity would differ from that of one based around Otago and Southland.

Key outcomes achieved, and the impacts on councils, are discussed through both the qualitative and quantitative lens. While the financial performance of a new entity is not the only relevant consideration, it is an important one, with affordability and the ability to fund and deliver the potential required investment in three waters infrastructure being cited as two of the main investment drivers for the Government's three waters reform programme. We have focused on these details as they are typically easily understood and demonstrate the scale of the challenge for the Otago and Southland regions.

However, a three waters entity is also likely to deliver increased capability and capacity to the delivery of three waters in the two regions, as it will have sufficient scale, and dedicated focus on the delivery of three waters services. It is this scale, capability, and capacity benefit that will likely give rise to longer term efficiencies and improvements to customer levels of service.

Many of the local issues identified here are common to all of the councils in Otago and Southland as well as those across New Zealand. In many respects, it is that similarity that is driving the Government's reform programme and their proposed solution to aggregate services to address these common issues. Each council is however unique in the way the mix of different risks and opportunities arise and their impact on their community and where this is the case, we have highlighted those different considerations.

For example, Southland has a potential challenge relating to future wastewater discharge requirements, and the management of rural drinking water supply schemes. Dealing with these issues means that continued delivery of three waters services by SDC is likely to be highly challenging, with investment needs driving high levels of potential borrowings, and the impacts of increased regulatory costs being passed on to ratepayers.



Capability and capacity

Council

Capacity and capability give an organisation an appropriate level of expertise and resilience. In relation to three waters an organisation needs strategic, technical, and operational capacity and capability. Strategic capacity is important to ensure good long-term asset investment decisions are made.

The entire three waters sector is facing capability constraints at a national level. 13% of all existing three waters roles in the Otago and Southland regions are currently vacant. Southland has four current vacancies in three waters.

The competition for human resource will increase throughout the sector as in many cases other councils are also planning to increase the size of their three waters teams and will effectively be competing with each other to attract resource. This could be further exacerbated by the establishment of large, multi-regional three waters entities which will have the size and scale to attract a high level of talent and offer clear career progression pathways and a diverse range of challenges.

Through our conversations with People and Capability Manager and the General Manager of Services and Assets in SDC it was apparent that attracting talent into SDC has been challenging. For example, one recent vacancy has had to be advertised twice and has yet to be filled. On occasion, Council has had to advertise offshore to attempt to attract the requisite skills, although this is more challenging with current Covid-19 restrictions.

SDC also struggles with an aging workforce in the three waters space with a number of staff holding institutional knowledge and some indicating that they are likely to retire in coming years.

These recruitment challenges are common across the Otago and Southland regions and are broadly a reflection of a nationwide skills shortage. However, attracting staff to provincial areas is particularly challenging and can result in protracted recruitment processes, or the need to consider alternative approaches (such as hiring from overseas or developing talent internally).

Regional water entity

If a single three waters entity covering either the Ngāi Tahu Takiwā or the Otago and Southland regions was created, then it would remove any competition between councils for resources. There is a shortage of specialist resources for three waters across New Zealand and internationally, and while a regional entity will not in and of itself create new resources, it will be able to make better use of the specific skills and expertise of its existing resources across the region in which it operates for the benefit of all areas within the region. So, unlike now, resource constraints would not disproportionately impact any individual district.

A larger entity and the staff, contractors and consultants involved in it would provide sufficient scale to create strategic capacity across the region and support the areas where there is currently a gap. Scale, capacity and capability give a level of expertise, depth of resources and resilience in three waters that can be applied regionally, benefitting all ratepayers of the region rather than only some as is the case now. Importantly the capacity and capability is shared across the region in an ongoing and sustainable way and the burden on smaller communities would be reduced.

A regional water entity would provide greater opportunities for carer development and progression than an individual council can offer.



These benefits would be expected to increase if the entity was across the Ngāi Tahu Takiwā compared to an Otago-Southland entity.

There are however challenges with the creation of regional water entities and the potential for resources to be centralised and pulled away from rural communities. In our view there is likely to be an overall increase in resources if a regional water entity was formed and there will always be a need for some roles to remain disbursed but until the Government model is finalised this is a risk that the Councils must continue to manage through ongoing engagement with Government.

Governance

Council

Governance of three waters services in SDC is provided through committees and sub committees of Council, including:

- Services and Assets Committee – Responsible for overseeing Transport, Property management including community facilities, acquisitions and disposals (including land dealings), Forestry, Water supply, wastewater and stormwater. This committee is comprised of all elected members.
- Three water supply committees for each of Te Anau Basin, Five Rivers and Matuku, and which are each responsible for the overall governance of the respective water supply scheme in accordance with the policies of Council. These committees include elected community members and in the case of Five Rivers and Matuku, a ward councillor.

The committee has no formal Iwi or Rūnanga representation, but there is nothing preventing Council from doing that or recognising Treaty partnership principles in some other way.

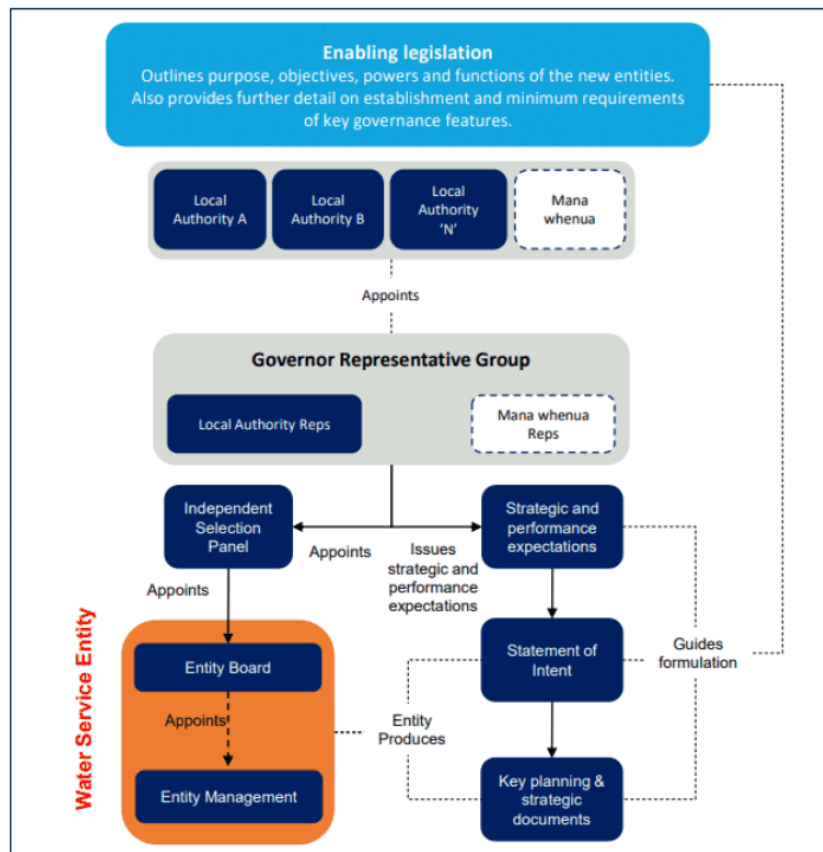
Regional water entity

We have assumed that the same governance model would exist in both the Otago Southland and Ngāi Tahu Takiwā options. We recognise that ultimately this may not be the case as the Government will dictate the option that is presented under this model.

A key goal of Government in the reform process is to provide mechanisms for enabling Iwi/Hapū input so that Māori rights and interests are considered in the new service delivery system. In December 2020, Cabinet agreed to a high-level principle of partnership with Iwi/Māori, which will be followed throughout the reform programme, and reflected in the new service delivery plan, and in the proposed model (shown below) and in particular the Governor Representative Group.



Figure 6 Governments “Emerging structure” for proposed three waters entities³



While the new model provides a better recognition of a partnership with Iwi/Māori than the current approach it increases the separation between the community and the service provider. Currently there is a direct democratic connection but the new model changes that, deliberately. The sense of separation from the community is only likely to increase the larger an entity was. The communities role and how they exercise it will fundamentally change.

While the draft model proposed by the DIA as part of their consultation process is not a CCO, we note that it has become accepted practice that an integral element of creating effective service delivery entities is establishment of a new governance framework, including the appointment of independent competency-based boards. The Auditor General has reinforced that by saying that appointing elected members to Boards of CCOs should be the exception⁴.

³ Source: “Department of Internal Affairs: Three waters reform programme – March 2021 Local Government and Iwi/Hapū engagement” retrieved from [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/Three-Waters-Reform-Programme-March-Engagement-slides.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/Three-Waters-Reform-Programme-March-Engagement-slides.pdf) on 3 May 2021

⁴ Governance and Accountability of council-controlled organisations, Office of the Audit General, September 2015



In our view there will be an improvement to risk management processes and practices that are driven by the Board because they will bear all the associated duties, obligations and liabilities of company directors (or equivalent) rather than having the current statutory protections of councillors.

Compliance and levels of service

Council

Investment in level of service enhancement is the largest driver of infrastructure spend in SDC, and a significant component of this spend is to increase compliance with new regulatory standards. Our cross-regional current state assessment highlighted the differing levels of service provided by each council in the Otago and Southland regions.

SDC's drinking water levels of compliance and levels of service are good for the Otago-Southland region, with over 56% of its total drinking water supplied receiving chemical treatment, and only 4% (or one treatment plant) receiving simple disinfection only. Southland also had the lowest rate of mains bursts per 10km, and the second lowest rate of unplanned water service interruptions per 1000 properties in the Otago-Southland region in 2020.

A dark blue rounded rectangular box with a subtle drop shadow. Inside, the text 'Southland has the lowest rate of water mains bursts' is written in a yellow-green sans-serif font, arranged in four lines.

Southland has the
lowest rate of
water mains
bursts

The only Water Treatment Plant in SDC that is likely to be non-compliant with the protozoal standards in the Drinking Water Standards treats smaller volumes of water and relates to one of the district's rural water schemes.

SDC has the second lowest number of wastewater treatment plants providing tertiary treatment however, with only 12% of the wastewater treated in Southland being subject to tertiary level treatment. In addition, 73% of the district's treated wastewater is currently discharged into a freshwater receiving environment.

In terms of investment requirement, the largest level of service investment outlined in Southland's RFI is the potential upgrade of the Winton wastewater treatment plant. However there are a number of planned consent renewals during this period, and we understand that in most cases discharging to land is unlikely to be a viable option, as the soil is typically unsuitable for this type of discharge. Because of this, the potential future investment requirements could be significant for the district.

If three waters service delivery remains with Council, then SDC will need to continue to fund the required level of service investment directly (as it is forecast to within its Long-Term Plan). This will require a sustained period of investment that will require water charges to double over 10 years. Cost increases like this will come with community pressure and if Council deviates from that path it will need to accept the additional risk associated with continued non-compliance.

Private schemes

Under the draft Water Services Bill councils are considered to be the supplier of last resort for drinking water services provided within their territorial boundaries. This means that in the event that a private drinking water scheme fails or ceases to provide drinking water, Council may be responsible for ensuring continuity of supply to households serviced by that scheme.

The risk of this occurring is a significant concern for most councils that we spoke to during our on-site visits, particularly given the increased enforcement of drinking water standards that has been proposed and the



increased levels of personal liability associated with non-compliance.

In the event that three waters reform proceeds, we understand that the Government would most likely transfer the obligation to act as the supplier of last resort to the new water entities. It is not yet clear whether this would extend to giving the new entities the powers to forcibly takeover the management of schemes, or to act as the supplier of last resort in districts where councils have not opted into the reform process.

While the number of private schemes in SDC is unknown the proportion of population that is connected to a water supply scheme provides a proxy for the scale of the risk. SDC the lowest percentage of connected population in the two regions, at only 33%, and as a rural council can be expected to proportionally have a higher number of private suppliers.

Regional water entity

An aggregated water entity would have the ability to concentrate on three water challenges and prioritise investment decisions across the region, leading to improved environmental and community outcomes than the councils can individually achieve when considered regionally. An entity could prioritise investment into the areas where the greatest benefit could be achieved.

The organisation would have a single focus. It would not be faced with trade-offs as is the case now where councils must juggle multiple competing priorities for investment and resources. It would not be subject to the same political pressure over rate increases. Pricing will be regulated by the economic regulator, not through the annual planning process.

The particular risks for the Otago Southland region include:

- Compliance risks in the current system: thirty five percent (35%) of the regions drinking water (by volume) does not meet protozoa requirements of the Drinking Water Standards.
- Seventeen percent (17%) of the resource consents for wastewater treatment in the region have already expired, and a further twelve percent (12%) are due to expire within the next 5 years, this creates a legal, regulatory and financial risk for the region.
- Eighty two percent (82%) of the three waters pipe network across Otago and Southland is in an unknown condition and therefore there must be uncertainty about the future investment requirements and risks that these could be greater than estimated.
- Under a status quo approach the future cost of three waters services that comply with the increased standards could be unaffordable in some communities.
- A larger aggregated entity should be in a better position to undertake the actions required to address these risks through opportunities to realise economies of scale, improved asset management and management of risk enabling funding and delivery of larger scale investment programmes. This should allow an entity to better meet any increased compliance requirements or increased environmental standards than the councils can.

These increasing service levels and compliance requirements are driving investment into systems, processes, resources and infrastructure. Our view is that it is unlikely that all councils in the regions have sufficiently allowed for all of the increased operating costs that these will create. There is therefore a risk that the compliance cost increases currently projected by the councils (including SDC) will be greater than forecast. A



regional entity with greater depth of resources will be better placed to respond to system wide compliance requirements and the administrative workload of dealing with the regulators and regulatory regime.

Infrastructure assessment

Future investment requirements

The Government's three waters reform programme that is being managed by the Department of Internal Affairs conducted a series of workshops across the country in March 2021. These workshops presented some of the preliminary findings from analysis of the responses to its request for information to the local government sector. The workshops highlighted the national investment challenge as being one of the major drivers for reform.

The workshops noted:

- A total investment requirement over the next 30 – 40 years of between **\$110 – \$170 billion** across the country.
- Current national investment of only \$1.5 billion per year across the country (equating to \$45 billion over the same 30 year time frame).

Our assessment of the future three waters investment is that SDC requires a total of **\$151M** over 10 years with an average annual spend of approximately \$15.1 million per year (real, 2021 uninflated). The primary driver for capital investment in SDC is level of service enhancement, followed by renewals with negligible growth investment for Southland.

Although similar, the main drivers for our uplift in planned investment in SDC, as compared to its own RFI, relates to an adjustment to reflect differences in values of assets and unit rates, and minor additional costs relating to potential wastewater treatment plant upgrades.

Our assessment includes an uplift in planned renewals investment for SDC from the \$32 million they had forecast to \$54 million over the ten years based on a comparison with rates of depreciation and the remaining useful life of assets.

Our analysis of RFIs completed by the councils of Otago and Southland, as well as our review of information provided in asset registers, was presented in our earlier *Cross-regional current state assessment* report (March 2021) and identified between **\$2.3 – 4.7 billion** of capital expenditure across the two regions over the next 10 years. Our modelling assumes a total of \$3.9 billion.

The issue is whether Council or a regional water entity is better able to plan, deliver and fund the requirement level of investment.

**\$151 m of capital
expenditure on
three waters over
10 years**



Delivery

Council

The ability to deliver on a capital works programme may have a significant impact on debt projections, rates and operational risk. As a sector, local government in New Zealand has historically been unable to deliver its full capital works budget.

SDC has itself had challenges in doing that and in 2019/20 delivered 81% of the planned programme (based on budget and actual expenditure)⁵. However, the capital programme achieved in 2020 of \$15M is sufficient to meet our estimate of the future investment requirements of an average of \$15 million per year each year until 2031. This is unique amongst the Otago Southland councils where all others require a significant, sustained increase that will present a challenge to them if they remain as service provider.



There is a risk around the councils, individually or collectively, being able to deliver the increased infrastructure investment required. The Otago and Southland councils, like most New Zealand councils, have generally struggled to deliver their capital programmes each year. Yet, the forecast investment required in three waters for the eight councils will more than double from \$101M in 2020 to an average of \$230M per annum each year over the next ten years.

Dedicated water entity

A larger aggregated entity should be better able to develop a coordinated programme and enable effective working relationships with service providers to ensure that the operation of three waters conforms to contracted services and performance levels across the region. This includes improving transparency and accountability for the delivery and costs of three waters services, including the ability to benchmark the performance of service suppliers. The greater depth in capacity, in particular in strategy, planning and programming should help support delivery of such a large programme of work.

However, the challenges with delivering the increased capital works programmes are likely to continue for some time until the industry prepares to increase its capacity, and long-term coordinated capital works programmes are developed and finalised.

There is also a risk around the ability of an individual council to meet the investment requirements if it was competing for scarce resources with a regional water entity (locally) and entities (nationally).

Providing for growth

Council

Under the current model SDC has control over the growth in its district and largely dictates the timing of growth through the provision of three waters and other supporting infrastructure. This may be directly through construction or through vested assets built by developers in accordance with SDC standards and passed over to Council.

SDC has allowed for nominal growth in the number of connections to its network of 1,000 additional

⁵ We note that capital delivery in the 2020 financial year was impacted by Covid-19 restrictions



connections during the ten year modelling period. This is supported by only a nominal amount of investment in growth infrastructure being included within Southland's RFI.

District planning, including the identification of new areas for housing, commercial and industrial activities, is currently an activity that looks across Council's activities and roles. The process considers factors such as, but not limited to, placemaking, transportation (including public transport), supply of greenspace, and availability of infrastructure.

Regional water entity

Shared responsibility for growth infrastructure creates risks for individual councils

One of the most significant changes introduced through an aggregated water entity is the change from the current full council control over providing for growth and investment priorities into the broader regional mandate of the water entity. Councils have control over broader growth planning and infrastructure provision for their areas but for three waters that will largely transfer to the water entity. Growth planning and the provision of infrastructure will effectively be shared between councils and the water entity. Shared responsibility can create duplication, gaps and has potential risks.

There will be a need to balance regional priorities with local in order to achieve best overall outcome for the region. There is a risk that SDC's priorities do not match the entities priorities for investment, either in timing or absolute terms. If the entity was covering the Ngāi Tahu Takiwā then the issues are only likely to be more complicated and balancing individual communities' priorities with the needs of the region more difficult.

The Government's consultation programme has indicated the development of a regional spatial planning process to guide that, but without the detail of how that operates it is an important risk as there will be change. It is an area council's must work with government on in order for communities, councils and a water entity to be successful.

District planning will require additional interfaces with the new water entity. In some cases a water entity may have different motivations than council, and is likely to place a greater focus on the provision (and cost of providing) infrastructure.

If considered regionally then the development of a single set of standards and a consistent approach to their application across the region will simplify things for developers and community.

Financial assessment

The financial analysis presented in this section builds on the previous work undertaken to support our *Cross regional current state assessment*, and our *Regional situation analysis* reports. The analysis uses our financial models to optimise debt and standardise forecasting assumption across each council and the proposed entity itself. These assumptions, which are outlined in Appendix B, are based on our experience and understanding of the Government's reform objectives but are unlikely to match Council's own projections.

In this regard, the forecast should be considered to be directional only, noting that any change to underlying assumptions will impact both the entity and Council.



In our view, the most significant financial issues arising from meeting the total investment challenge are likely to be the impact on a council's debt, and the impact on ratepayers. These issues are covered below.

Impact on household charges

Council

We estimate that three waters charges for SDC households may increase by almost 210% in real terms from approximately \$929 per property in the 2021 financial year to around \$1,953 in 2031 (in 2021 dollars). When an allowance for inflation is included (using BERL LGCI cost index) this figure is as high as \$2,731.

In some cases, ratepayers may only receive one or two of the three waters services. In this case, a comparison of the three waters rate may not be helpful. The table below sets out the estimated current⁶ and future household charges for each of the three waters.

**Water charges
increase 210%
(before inflation)**

Table 3 Comparison of water, wastewater and stormwater charges

	2021 charge (ML adjusted)	2031 estimated charge - SDC
Water	\$469	\$816
Wastewater	\$415	\$945
Stormwater	\$45	\$191
Three waters	\$929	\$1,953

Affordability of these water charges should not be measured in absolute terms and should also consider the costs that a community can bear. In the Water NZ 2017-18 National Performance Review it considered relative affordability of water and wastewater services. It referred to varying international water affordability metrics for water and wastewater services ranging from 2 - 5% of household income⁷.

By this metric SDC exceeds the lower threshold for affordability issues in 2024 and by 2031, water and wastewater charges equate to approximately 2.4% of median household income.

An affordability metric that considers only the median household income in a district masks the impacts that increasing water and wastewater charges may have on the more vulnerable populations that are on fixed incomes. 4% of SDC's population receives benefit support of some kind, and a further 16% receives a pension.

⁶ For comparison purposes we have estimated 2021 water charges using the same approach as our estimates for 2031. Importantly, this means the 2021 charges shown here may not match the charges set by council. The 2021 charges shown here are intended to provide a useful baseline to demonstrate the scale of uplift in costs.

⁷ 2018-18 National Performance Review, Page 7



Projected water and wastewater charges in 2031 for SDC reach

- 7.6%, the jobseeker support for a sole parent.
- 6.7% of the pension rate for a single person living alone under the status quo.

We note that this analysis may not be fully representative of affordability for these groups however, as many pensioners will have the ability to draw on retirement savings or equity and may have additional income streams. Similarly, beneficiaries are less likely to be directly liable for paying these charges, and our analysis also excludes any additional allowance by way of the accommodation supplement.

Regional water entity

The Water Industry Commission of Scotland (WICS) noted, in their report to the New Zealand Government (the WICS report), that a three waters service delivery entity could be expected to achieve operating efficiencies of between 10 - 40% over a time period of 10 years (after adjusting for inflation and level of service improvements)⁸. It also indicated potential capital works savings in the order of 45% over a period of 30 years.

Our own work has indicated savings of a similar (albeit slightly less ambitious) scale may be achievable (we estimated 11% operating savings in 10 years, and 10% capital savings in 10 years). In our experience, these savings typically relate to:

- efficiency – doing things right, with less inputs, e.g. a reduction in the costs of contracted services.
- effectiveness – doing the right thing, e.g. reduction in re-active maintenance from improved asset management practices.
- efficacy – setting the right objectives (as it relates to three waters, e.g. asset management).

It is important to note that establishment of a new entity will likely take considerable time to deliver benefits and will not necessarily solve all existing issues, for example, addressing capital investment backlog or affordability. An early Frontier Economics report commissioned by DIA concludes however, there is considerable international evidence to suggest that reform, when accompanied by a suite of other governance and regulatory reforms, has led to improvements in performance⁹.

The impact of the modelled capital and operating savings are outlined in the table below with 2031 highlighted in the table as it is not until that point that a regional water entity begins to deliver savings through to the ratepayers.

⁸ This assumes that an economic regulator is also established. WICS made no attempt to attribute benefits between regulation and aggregation.

⁹ [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/\\$file/Frontier-Economics-review-of-experience-with-aggregation-in-the-water-sector.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-documents/$file/Frontier-Economics-review-of-experience-with-aggregation-in-the-water-sector.pdf)



Table 4 Potential savings

	Three waters entity	Saving
Capital expenditure 2024 – 2035	\$2.9 billion	4%
Operating expenditure 2024 - 2031	\$2.86 billion	2.7%
Annual operating expenditure 2031	\$383 million	6.6%

We have not undertaken detailed modelling or analysis on a Ngāi Tahu Takiwā entity to complete the above table, however, we note that we would expect such an entity to have 2 – 3 times the level of capital and operating expenditure of an Otago-Southland entity. Similarly, we would expect savings within a larger entity to be larger, or more likely to be able to be achieved.

Our modelling focusses on the ten year period outlined in SDC's responses to the Government's RFI and covered by SDC's latest (draft) long-term plan. Our analysis shows that the potential operating and capital savings only begin to have an impact on household charges at the end of the modelling period. These efficiencies could be expected to have an increasing effect on household charges beyond that.

Three waters charges are likely to be lower under the status quo (Council delivery model) than under a regional water entity covering Otago Southland for ratepayers in Southland in most scenarios.

**\$2,001 – average
household water
charge in 2031
(uninflated)**

Table 5 Comparison of three waters charges in 2031

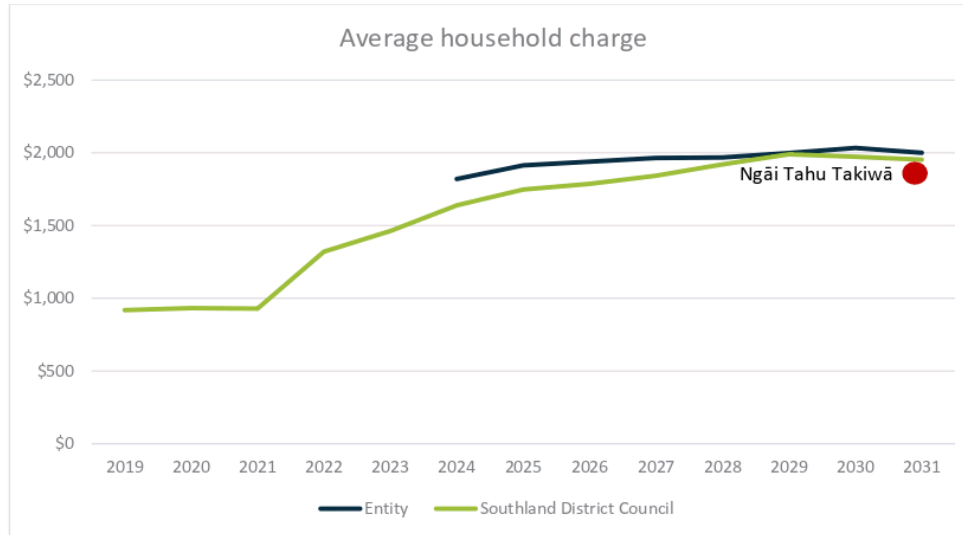
	Water charge	Wastewater charge	Stormwater charge	Three waters charge	Increase (%) vs 2021	2031 range
SDC	\$816	\$945	\$191	\$1,953	210%	\$2,010 – \$3,087
Otago Southland Water Entity	\$841	\$882	\$277	\$2,001	215%	\$1,785 – 2,216
Ngāi Tahu Takiwā¹⁰	\$600 - 700	\$800 - 850	\$300 - 350	\$1,700 - \$1,900	194% ¹¹	No information

¹⁰ The estimate of household three waters charges for the Ngāi Tahu Takiwā has been prepared based on limited information and contains a number of assumptions and high level estimates.

¹¹ Based on midpoint.



Figure 7 Average annual household charge – three waters entity



The three waters entity breaches 2% of household income threshold on establishment but has a similar outcome over time as Council alone. Under a regional water entity covering Otago Southland, projected water and wastewater charges in 2031 for SDC ratepayers reach:

- 7.4% of the jobseeker support for a sole parent,
- or 6.5% of the pension rate for a single person living alone

The improvement highlights the influence of stormwater charges.

Given the likely reduction in three waters charges in a larger entity covering the Ngāi Tahu Takiwā we would expect household affordability for water and wastewater service to be further improved for SDC ratepayers under such a model.

However, with the water services entity it is likely that charging mechanisms for renters may change. Under the current council delivery model, water charges are incorporated into rates bills and are covered by landlords in the first instance (and recovered in rental income). A water services entity would likely have a direct billing approach meaning tenants in rented properties may have to cover these costs directly (and there is unlikely to be a complimentary reduction in rent).



Table 6 Comparison of affordability of three waters charges

	Three waters Estimated charge (2031)	Two waters estimated charge (2031)	Two waters % of average household income (2031)	Two waters % of pension (2031)	Two waters % of job seeker support (2031)
SDC	\$1,953	\$1,762	2.4%	6.7%	7.6%
Otago Southland Water Entity	\$2,001	\$1,723	2.4%	6.5%	7.4%
Ngāi Tahu Takiwā Entity	\$1,700 - \$1,900	\$1,400 - \$1,700 ¹²	1.9% - 2.3%	5.3% - 6.5%	6% - 7.3%

Resilience

A key benefit of a regional water entity is the larger population base it serves. This provides the entity with more financial resilience. Potential future price shocks within the Otago and Southland regions may include:

- The costs to meet increasing drinking water and wastewater standards.
- The valuation of assets, and in particular, the potential under-valuation of underground assets, and the consequential impact of that on planned capital investment.
- The significant level of investment in renewals that is required in the district and in the wider region.

Debt

The scale of the capital investment required will need to be funded by debt. This is an entirely appropriate funding mechanism for three waters infrastructure. However, debt is also a significant driver of cost, with financing costs accounting for an increasing proportion of total operating cost as investment requirements grow, and a need for the eventual repayment of that debt.

The question is whether there are differences with either a regional water entity or with Council and if so whether those are benefits or challenges.

¹² We have not assessed two waters charges for a Ngāi Tahu Takiwā entity, and this range assumes that two waters charges in such an entity would be similarly lower than three waters charges as we have observed in Otago and Southland.



Council

The forecast debt position and debt to revenue ratio for the three waters is for three waters debt to exceed \$78 million (or 374% of three waters revenue) in 2031. Given the local government funding agency's borrowing covenant of 280% of revenue, the serviceability of three waters debt in SDC will become somewhat dependent on revenues from other activities (thereby constraining the ability of those other activities to borrow).

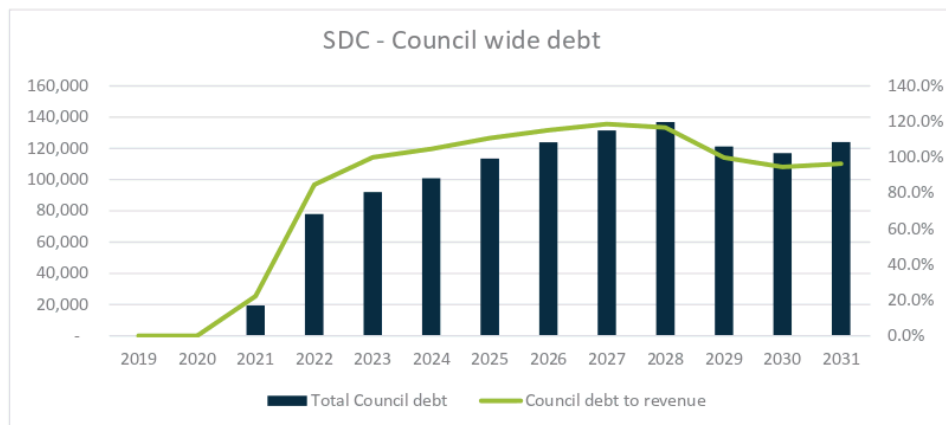
**\$78 million of
three waters debt
in 2031**

While we are unable to predict what the impact of our increased investment programme would be on planned borrowing for other Council activities, we have attempted to predict total Council debt in the chart below. This assumes that Council does not alter the amount of debt, or revenue, that it requires to fund its other activities in response to the increasing funding requirements for three waters (although we would anticipate that such adjustments would be inevitable).

This shows an increase in debt, peaking at \$136 million in 2028, and a debt to revenue ratio that peaks at 118% for SDC as a whole.

This shows that even with three waters service delivery Council will not become debt constrained.

Figure 8 Whole of Council debt and debt to revenue ratio



Regional water entity

By 2031 a three waters entity is forecast to have debt totalling:

- Between \$6 – 6.5 billion, and exceeding 600% of its annual revenue, in a Ngāi Tahu Takiwā entity.
- \$1.9 billion, or 465% of its annual revenue, in an Otago Southland entity.

This represents a small reduction compared to simple aggregation which is achieved through efficiency improvements.



However, we estimate that a regional three waters entity covering the Otago and Southland region or at the Ngāi Tahu Takiwā will breach both the LGFA lending covenant, and the debt to revenue covenants that would likely be imposed by the credit agency Moody's if the agency was to seek a Baa/Ba credit rating.¹³

This means that either regional water entity would have to rely on Government subsidies or higher user charges to be able to afford the current investment programme.

Sensitivity testing outlined in Appendix A shows that this is likely to be the case regardless of the assumptions adopted in our modelling.

Alternatively, the three waters entity could delay or stage investment to ensure that it remains within the borrowing limits, but delayed investment is one of the many potential causes of the current issues with three waters service delivery within the local government sector.

The challenges for an Otago Southland regional water entity or Ngāi Tahu Takiwā entity to be able to borrow sufficient funds to meet the required investment programme is considered a major impediment to the viability of an Otago Southland three waters entity. It appears from a recent newspaper article "Water reforms hit an expensive snag, as cost estimate rises to \$185b"¹⁴ that this situation may be replicated across the country which could provide for further incentives or changes.

The issues regarding the total debt for proposed water entities should not be underestimated as they are likely to be an impediment to the overall effectiveness of the proposed entities if they are unable to be resolved.

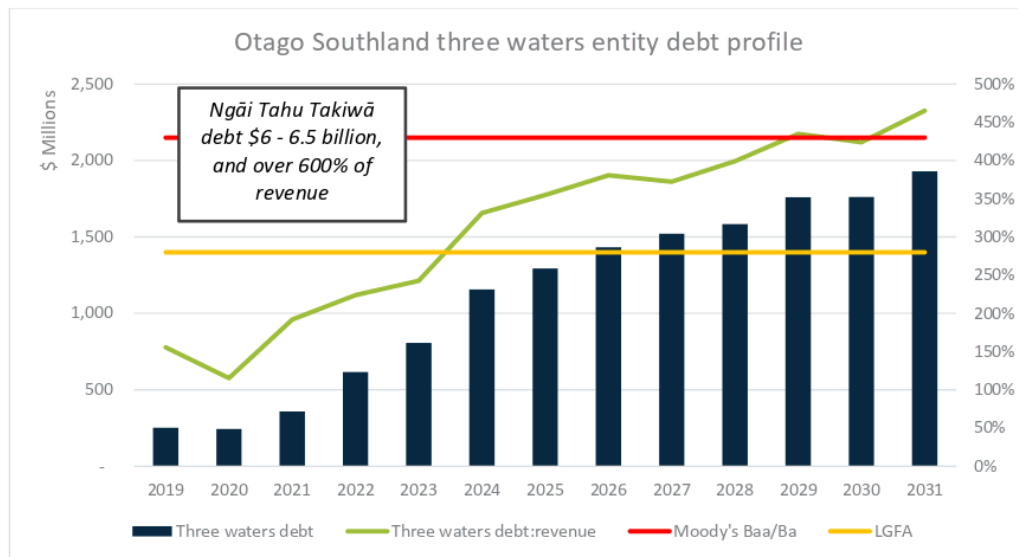
**Borrowing will exceed
lending covenants or
investment
constrained**

¹³ Per the WICS report. Note that the LGFA currently has an AA+ rating for foreign currency lending from Standards and Poors – equivalent to an Aa1/Aa2 rating from Moody's. A Baa/Ba rating would likely result in higher borrowing costs than can be obtained through the LGFA.

¹⁴ <https://www.stuff.co.nz/national/politics/300309952/water-reforms-hit-an-expensive-snag-as-cost-estimate-rises-to-185b>



Figure 9 Debt to revenue ratio versus LGFA and Moody's benchmarks – three waters entity





What would the impact of change be?

A change in role for Southland District Council

If three waters was transferred out of Council, then in our view SDC is likely to be large enough to have a continued and meaningful role in its community following three waters reform, however additional Government reform around the Resource Management Act, and the recently announced review of the future of local government may have a significant impact on this. It is likely however that, in the absence of three waters, that SDC will need to go through a period of organisational review and refocus to ensure that it is able to provide sustainable, meaningful contributions to its communities.

Many Council teams have resources at or close to capacity. The removal of three waters services from Council will free up some of this capacity. The three waters team in Southland is relatively independent and provides only minimal support to other Council activities. This means that the removal of the three waters team from the organisation will not be overly disruptive to the continued operation of Council's other activities.

Transfer of responsibility for delivering water to a new entity will mean the Council (from the Councillors, through its leadership and operational staff), will have the opportunity to reassess the ways in which it can effectively deliver on other issues for its community with its remaining resource. For example, the removal of three waters roles may provide an opportunity to evolve the remaining organisation structure to respond to the wellbeing of their communities as detailed in The Local Government (Community Wellbeing) Amendment Act 2019.

The Frontier Economics report addresses the potential concerns with aggregation leading to loss of economies of scope with other council functions and concludes that such issues do not appear to have emerged in practice as a major problem in the jurisdictions examined in the study.

The true impact on Council, and the exact nature of its future role is, however, uncertain. In addition to three waters reform, reform of the Resource Management Act, which may alter the responsibilities and obligations of councils, and the recently announced "Future of Local Government" review, will also have a significant impact on the broader impacts for a council that cannot be ignored.

Impact on Council as an organisation

In SDC's current organisation structure, the water services team has 15 roles that are either entirely dedicated to three waters or spend about 75% of their time on three waters tasks. Two of these roles are currently vacant. This equates to around 13 FTE with 2 additional FTE providing dedicated GIS and Customer support for a total resource of 15 FTE.

As depicted in Figure 9, groups outside of the Water services team provide some support to three waters and in some cases there is sufficient resourcing within those support functions for staff to transfer, although a number of roles only provide a part time support, and in those areas organisational capacity is already low.



The additional capacity from support staff that remain in Council will not be funded by water revenue so may become a stranded cost (to the extent that it does not simply delay or defer otherwise planned recruitment). The organisation will need to manage this cost as well as the funding of senior positions within the Council whose roles would have in part been based on a span of responsibility that included water. Stranded costs are discussed and quantified in the following section.

The actual transfer of resources from Council to the water entity would be small. Our analysis shows only 10% of Council's FTEs are solely or significantly focussed on water related activities as many roles are already outsourced. Before and after functional structure charts of SDC are set out on the following pages to demonstrate the extent of change within Council. In all cases vacancies have been included.

In some cases the level of support provided by the wider Council to three waters may be such that the transfer of three waters services to a new entity would result in the transfer of support staff as well, however this is not consistent across all support services in the organisation, and in some areas the removal of three waters activities will simply create additional capacity which can be applied elsewhere.

As SDC operates out of three offices within Invercargill (plus a number of district service centres it is likely that one of the currently leased buildings would not be necessary if three waters services were transferred to a new entity. This would release some of the overhead that is currently funded by three waters activities.

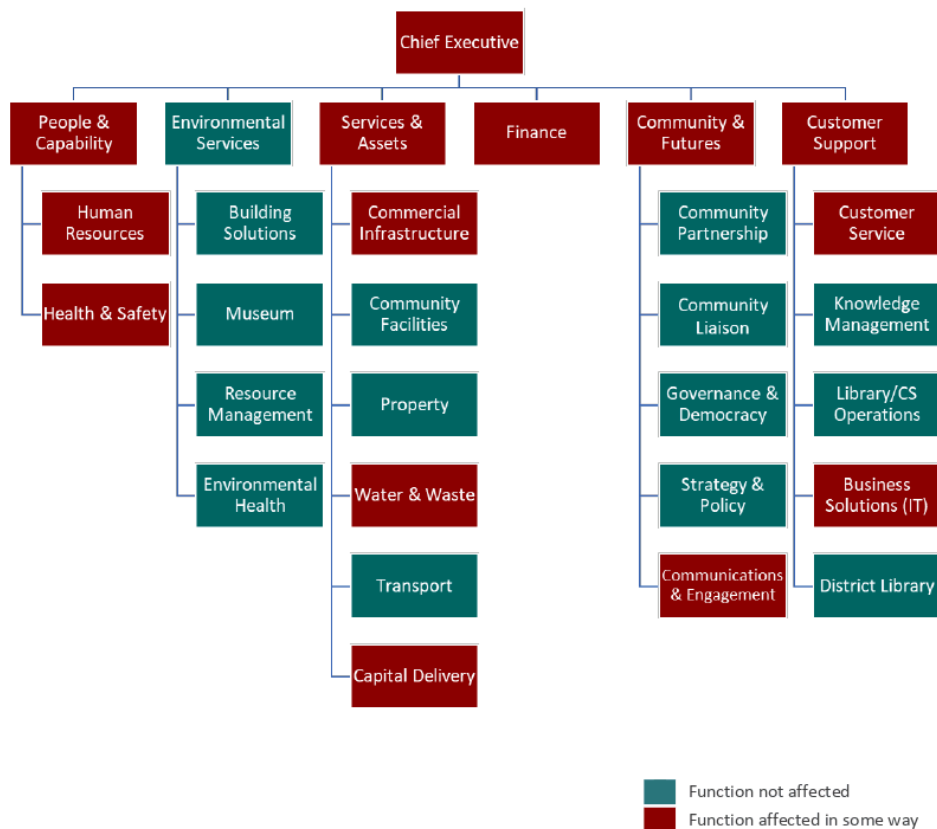
Table 7 Pre and post change Council FTEs

Pre water entity FTE	Post water entity FTE
202 ¹⁵	~ 187

¹⁵ As at 4 Feb 2021



Figure 10 Current Southland District Council functional chart showing functions impacted by water aggregation







Financial impacts

The transfer of three waters service delivery into a new three waters entity would give rise to a reduction in the overall revenue of Council.

Three waters accounted for an average of 17% of Council's total revenue between 2019 and 2021, and 14% of its total operating expenditure in the same period. The removal of both the revenue and expenditure would therefore likely have a negative impact on Council's financial performance. Removal of three waters revenue and expenditure in (based on the average of 2019 - 2021) would leave approximately \$3 million of unfunded expenditure at a whole of Council level.

The anticipated impact on Council's total revenue from the transfer of three waters service delivery is shown in the table below.

Table 8 Comparison of Council revenue after transfer of three waters service delivery

	With three waters (ML adjusted) (2021)	Without three waters (2024)
Council revenue	\$79 million	\$78.5 million

The net impact of the removal of three waters service delivery from SDC is that by 2024 Council will collect approximately the same amount of revenue that it is anticipated to collect in 2021. That is, in many respects SDC will not be significantly different in size and scale than it is currently.

Balance sheet impacts

We have assumed that the transfer of three waters assets from councils to new three waters entities would be accompanied with an equivalent transfer of debt. The impacts on SDC's balance sheet, assuming three waters debt is transferred in 2024 is shown below.

Table 9 Impacts on Southland District Council's balance sheet

	With three waters (ML adjusted) (2024)	Without three waters (2024)
Total Council debt	\$99 million	\$49 million
Debt to revenue ratio	105%	63%
Debt capacity (\$)	\$168.9 million	\$170.6 million

The decrease in SDC's debt to revenue ratio from 105% to 63% without three waters assets would create opportunities to use the increased borrowing capacity for other Council activities and services.

We have not attempted to predict SDC's debt (without three waters) beyond 2024 as the impacts on Council's revenue and balance sheet would be of such a magnitude that they are likely to have a substantial impact on Council's decision-making processes.



Stranded overheads

The delivery of three waters services in SDC is heavily supported by other areas of the business including most corporate support functions. Most of this cost is charged to three waters activities through an allocation of corporate overhead, that uses an allocation system which broadly reflects the use of those services by the three waters team.

In many cases these costs reflect the cost of staff time (for example, it may include a portion of the employment costs for an accounts payable officer). Where this is the case, it is unlikely that the removal of three waters services will result in a reduction in these employment costs (as the role is still required within Council). These costs are therefore considered “stranded” as they remain with Council despite the loss of the activity which funds them.

Our estimate of the amount of corporate overhead charge that would be stranded in SDC is between \$3.0 – 3.4 million. There may be some opportunity to reduce this stranded overhead in relation to Council’s leased office space, and where some staff that support three waters may transfer to a new entity. However, we believe that any savings however are likely to be minor and are unlikely to reduce stranded overheads below \$3 million and that these are unlikely to be able to reduce overtime without significant changes.

The stranded overhead equates to around \$149 per rateable property in SDC in 2020.

The typical range for stranded overheads within the Otago and Southland regions is between \$70 – 200 per ratepayer. SDC is consistent with this range.



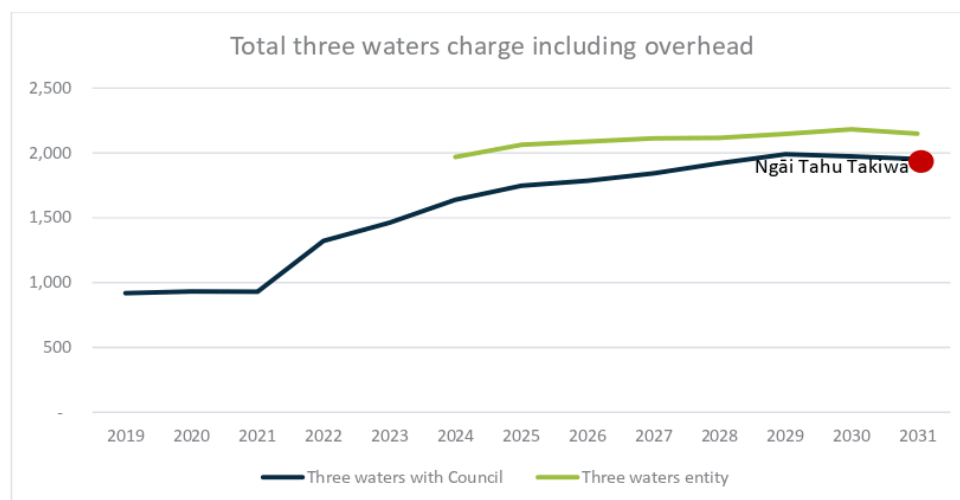
Total cost impacts for ratepayers

If three waters assets were transferred out of Council, the net impact on ratepayers would be the combined cost of the three waters charges imposed by the new entity and the additional component of SDC rates that is required to fund the stranded overhead of Council.

To identify the potential impact on ratepayer from the transfer of three waters assets to a new entity, we have therefore compared the combined entity charge with the average household charge that would otherwise be paid if SDC retained responsibility for the delivery of three waters services.



Figure 12 Comparison of total household cost for three waters services council versus three waters entity



This comparison shows that, when the cost of stranded overheads is considered and passed on to ratepayers, the overall cost of three waters services for SDC ratepayers will be:

- Between \$1,850 and \$2,050 by 2031 (or 5% cheaper – 5% more expensive) with a Ngāi Tahu Takiwā entity.
- around 10% more expensive by 2031 with an Otago Southland three waters entity.

The reduction in ratepayers costs in SDC in 2031 would appear to be short term, and we would expect that this would continue to rise over time.



Summary

Due to increasing standards and requirements a change to the way three waters services are delivered is inevitable. The form that this change takes is a decision for SDC to make, and this report presents information to assist with making this decision.

The arguments for and against the opt in or out decision are presented below, alongside the relevant risks of each decision. For simplicity, we note that the opt out decision discussed below relates to SDC opting out of reform and continuing with its existing service delivery arrangements.

The option to opt out of reform and pursue voluntary change into an Otago Southland three waters entity in our view has a very low chance of success and risks Council being left as the service provider.

That option requires a coordinated and consistent approach across all of the councils in Otago and Southland. All eight councils in the two regions must opt out of the Government's reform process but have a desire to aggregate three waters services at a more local level. They must then go through a detailed entity design process, fund the transition and entity design process themselves, consult with their communities on the same proposals and ultimately agree. There are limited examples of this being successful in New Zealand and none where asset owning has been part of the model.

In the event that an Otago-Southland water entity emerges as the Government's preferred option, most of these challenges will disappear.

Opting in

Arguments for

- A regional water entity will have increased capability and capacity of three waters staff, depth of expertise and increased organisational resilience to changes in staffing levels.
- A three waters entity would have a skills based board with a single focus on three waters issues and would have an enhanced ability to embed the principles of Te Tiriti o Waitangi and Te Ao Māori within its governance framework. There would be no competing interests for investment requirements and funding.
- A three waters entity would have greater financial and technical resources to be able to address compliance issues and make the investment required to comply with new environmental, health, and cultural standards. A three waters entity would also assume most of the risk associated with rural water supplies and private water schemes.
 - Average household charges for three waters services are likely to be lower under a three waters entity covering the Ngāi Tahu Takiwā and a three waters entity would have significantly improved financial resilience. When the impact of stranded overheads is considered three waters charges are likely to be similar under the current delivery model and a three waters entity covering the Ngāi Tahu Takiwā.
 - Government financial incentives are expected for councils who opt in to the reform process.

**Arguments against**

- SDC may experience some increased challenges to recruit engineering staff and asset managers to support its remaining activities due to increased competition with a three waters entity and a reduction in variety of work although the effects of this may be limited to certain roles within the organisation.
- There will be a number of new challenges introduced relating to the prioritisation and coordination of investment in three waters infrastructure across the region. SDC will no longer control the timing and location of investment. Instead it will be a shared responsibility.
- There may be a loss of local representation, which would be worse with an entity covering the South Island or the Ngāi Tahu Takiwā.
- A three waters entity would face higher borrowing costs, and a potential credit downgrade, if it were to deliver the full capital works programme for the areas that it covers without suffering a credit rating downgrade and, consequently, higher costs of borrowing. We believe this to be a national problem, which is more likely to be able to be solved with a small number of water services providers.

Risks

- Delivery of the full capital works programme at an Otago Southland level, or even with a larger entity would appear challenging. There is a risk that a larger three waters entity may not be able to generate improvements in terms of capital works delivery.
- Without critical mass of all councils there is a danger that the benefits of change will be substantially reduced or lost. This is particularly the case if the population centres of Dunedin, Invercargill, Christchurch, and Queenstown were not involved. A Ngāi Tahu Takiwā would be more resilient to this.
- As a three waters entity may have limited access to sufficient debt to fund its full investment programme, it may need to manage competing investment demands from different districts (and to achieve different outcomes, e.g. servicing growth versus improving compliance). There is a risk that these priorities may not align with local priorities.
- There are still a number of unknown factors about entity design which may have a significant bearing on the comparison of an “opt in” option with an “opt out” option. These include issues regarding:
 - Entity design.
 - Council’s roles as owner and governor.
 - Mechanisms to prioritise local investment.
 - Coordination of planning and investment.
 - Interfaces with stormwater and the extent to which stormwater assets and functions will be transferred.
 - Community input and role.
 - Allocation of liabilities, land ownership.



Opting out

Arguments for

- The required level of future investment in infrastructure would appear to be manageable, both financially and in terms of ability to deliver, for SDC based on current forecasts. SDC's debt is predicted to remain well within LGFA lending covenants, and it has previously delivered a similar level of capital works as it is forecasting to require in future years. However, delivery of the full capital works programme at an Otago Southland level, or even with a larger entity would appear challenging.
- A three waters entity would not have the borrowing capacity to be able to deliver the full capital works programme for the areas that it covers without suffering a credit rating downgrade and consequently, higher costs of borrowing. In contrast, SDC is currently projected to have sufficient financial headroom to be able to fund its forecast capital works programme.
- SDC is able to determine the timing and level of investment it makes into its three waters infrastructure if it retains control of its three waters assets. Increasing regulatory enforcement and standards will still be a significant driver for determining the timing and type of investment.
- There may be alternative options available to council to address many of the potential challenges with continued council service delivery of three waters. These options were not explored as part of this review.
- Household charges are not likely to be substantially higher under a continuation of the council led service delivery model than they would be under a Ngāi Tahu Takiwā or Otago Southland water services entity.

Arguments against

- Council is making its opt out/opt in decision within the context that every other council in New Zealand is also making that decision. In many cases there is a strong and very strong case for change. The ratepayers of six of the eight councils in Otago Southland would, in our view, have lower water charges under a regional water entity, but this reduces to five when stranded costs are taken into account. The ratepayers of all eight would be better off in a Ngāi Tahu Takiwā. If SDC opts out while other councils opt in, the ability to attract staff or deliver its capital works programme will be further diminished as it will be a small organisation competing with much larger entities. This may also impact on the cost of completing work in Southland.
- While SDC is likely to be able to borrow enough to fund the required investment in three waters infrastructure, the amount that is will be required to borrow will impact on its ability to borrow to fund other activities, or to respond to emergencies.
- With a low (33%) of its population being connected to a council provided drinking water supply, and its predominantly rural environment, there is a significant risk that SDC has a large number of private drinking water schemes within its region, many of which will be non-compliant with future drinking water standards. By opting out, Council will be the supplier of last resort for customers of these schemes. This could present a substantial legal and financial risk for council.

**Risks**

- If SDC opts out while other councils opt in, the ability to attract staff or deliver its capital works programme will be further diminished as it will be a small organisation competing with much larger entities. This may also impact on the cost of completing work in Southland.
- Any incentives that come with the current reform process will not be available to councils if they opt out of the process. Further, while the costs of transition to the new entities will be covered by the government as part of the current reform process, it is possible that councils that later opt to join any three waters entities may face costs to join or transition to these entities.
- The risks and challenges with future water service delivery in Southland would be significantly increased if the other councils in Otago Southland and the South Island more generally opt in to the reforms.



Preparing for change

Challenges and opportunities

The transfer of three waters assets to a new three waters entity in Otago-Southland (or a larger geographical region to be determined) will not be without challenge for SDC, or any of the other councils. Many of these challenges will be consistent across all of the existing councils, and these are outlined in the section on “common issues”. These issues primarily relate to the need to establish new processes and relationships to ensure investment planning and Council’s regulatory functions continue to operate smoothly.

SDC also has some unique challenges which will likely need to be addressed prior to any transition. These primarily relate to the management of rural water supply schemes and future requirements for wastewater discharge.

Rural water supplies

SDC, has 11 rural water supplies which have a primary purpose of providing stock water or water for irrigation purposes. Many of these schemes convey water through a reticulated network which often feature both approved and unapproved private connections for drinking water.

The extent to which these schemes treat water, and the standards to which that water is treated, vary widely between differing schemes.

Continued management of these schemes is likely to be both costly and risky for Council once the Water Services Bill has been passed, and there will be increased responsibility and liability associated with compliance with the drinking water standards. We understand that there were multiple submissions regarding the Water Services Bill which relate to whether elected members will be exposed to the legal liabilities contained within the Bill or not.

Similarly, a new three waters entity will need to be sympathetic to the differences between rural and urban water supply schemes, which may include consideration of different solutions (such as treatment at tap) to ensure compliance with drinking water standards for rural supply schemes. This may also include consideration of different charging mechanisms for such schemes.

Future wastewater discharge requirements

SDC’s completed RFI discloses 12 wastewater consent renewal projects occurring over the period to 2031. In some cases these consent renewal programmes also include costs for investigations into discharging wastewater to land, or minor upgrades.

As highlighted earlier in our report however, a large proportion of the total wastewater volume discharged within the Southland District is discharged into freshwater receiving environment, which is becoming increasingly unacceptable from both a cultural and freshwater management perspective.

In addition, only 12% of wastewater in Southland receives the highest level of treatment. The combination of the receiving environment, and the level of treatment, means that there are likely to be significant costs associated with the renewal of at least some of the district’s wastewater treatment consents.

In some cases, discharging to freshwater environments would appear to be the only viable option. The land in some parts of the district is not appropriate for receiving wastewater discharges.



A new three waters entity is likely to face the same challenges as SDC, although it will have the ability to spread costs over a larger customer base.

Recreational water use

Council has a small water treatment plant in Curio Bay that is listed as a recreation asset, but which provides drinking water to campground users. This will be considered a water supply under the Water Services Bill and accordingly, Council should consider whether it wishes to transfer responsibility for this to a new entity.

We also understand Council has a number of community halls which are serviced by water bores, not all of which are owned by Council itself. Council will need to consider options such as treatment at tap, or connection to a reticulated network, if it is to continue with these arrangements.

Public records

We understand that Council maintains a large number of paper records regarding properties in the district. These records must be maintained and kept under the Public Records Act, and fines are applicable for breaches. We understand that a number of these records relate solely to water connections or wastewater services, and accordingly may need to be transferred to a new entity. This is a matter that may need to be considered in more detail through the transition process.

Common themes

Through our various onsite visits to councils to identify the impacts of water reform on each organisation, we have identified the emergence of a number of consistent themes that apply to all councils (although some may apply to SDC more than others) which are listed herein.

Typically these are issues which we consider can, and should, be addressed as part of any transition process, but which are sufficiently large to warrant specific discussion herein.

Ensuring investment in small communities is maintained

One of the key concerns that emerged through our early conversations with stakeholders, and our subsequent site visits to councils in the Otago and Southland regions was the need to ensure that small communities continue to see a fair share of investment. This concern is particularly pertinent when considering an entity that encompasses a larger geographical area than the Otago and Southland regions on their own.

This is a key entity design consideration that we believe should be addressed before a council agrees on whether or not it wishes to opt into the wider reform. At the time of writing, the Government has not made it clear what specific mechanisms will be introduced to ensure that this occurs, however we understand that:

- Proposals include the establishment of a Governor Representative Group, which will include representatives from Iwi and Councils and will influence the overall governance of the entity and will set strategic and performance objectives for the entity.
- New planning regulations may be introduced to require a level of coordination between councils and the proposed entities in the planning process. These may address issues regarding the timing and quantum of investment in growth infrastructure, though it is unclear how these may relate to renewal or level of service investment.



Councils may wish to further investigate other potential mechanisms to ensure small communities get a fair share of investment. This may include the development of enforceable KPIs or investment quotas for regions, although care needs to be taken to ensure that the new entity is still empowered to make its own investment decisions and obtain efficiencies.

Operating model considerations

The operating model of any three waters entities established through the Government's reform programme will be determined by the Government after consultation with the sector, and accordingly, we have not suggested or proposed an operating model here. However, in engaging with the Government through this process, we consider it important that Council considers the following key features of any such proposed model.

- The governance structure and the mechanisms in place to ensure that councils have some say in the management and governance of the entity, and that planning and investment decisions are coordinated.
- The mechanisms in place to ensure investment is fairly distributed between small and large communities.
- How the entity may ensure that expertise remains local, whether through flexible workplaces, or district offices.
- How relationships between councils will be established to ensure that there is open sharing of information and to encourage collaboration and coordination of activities and investment.

It is clear from our discussions with councils in the Otago and Southland regions, as well as from the information released from the Government to date, that in addition to three waters technical expertise, a new three waters entity will need to establish functions or roles relating to:

- District and spatial planning to the extent that the new entity will most likely be involved in spatial planning within the regions in which it operates.
- Consents to the extent that the new entity would likely need to be involved in the process for issuing and granting resource and building consents, particularly in the case of residential development and connection to infrastructure, development agreements, and the potential vesting of assets.
- Council relationship managers or partners to ensure coordinated responses and ongoing working relationships are maintained.
- Customer services.
- Human resources.
- Property and fleet management.
- Legal and regulatory roles.
- Finance and business reporting.
- Health and safety and risk management.
- Communications, engagement, and marketing.
- OIA/LGOIMA responses.



Importantly, from our onsite interviews to date, we consider that it is unlikely that many of the roles discussed above will be able to be filled by existing council resources (that is they are predominantly new, rather than transferred, roles). However, the process for transferring the three waters service delivery functions, and everything that goes with that, will likely be protracted and will need to be carefully managed.

Competing with large water entities for resources

The Otago-Southland region, and New Zealand at large, is currently facing a shortage of skilled engineers, with most councils in the two regions having to offer a premium above market rates to attract skilled staff. The Otago-Southland regions currently have approximately 12.8% of positions in three waters vacant.

While most engineers involved in three waters will transfer to a new entity, councils will still require skilled engineers to deliver roading, waste, and other major capital works. In many cases, engineers in councils are involved in many different projects and activities. If councils are no longer responsible for three waters, these staff may no longer find their roles are appealing or challenging.

Large water entities may be able to offer more career opportunities, choices in work location, and more challenges for engineers. This additional competition may make recruiting and retaining skilled engineering staff harder for councils than it already is. However, larger entities are also more likely to be able to develop expertise within the sector, which may ease the longer term skills deficit.

Systems and processes that need replicating

The delivery of three waters services typically supports, or is supported by, a range of Council systems and processes that are likely to need to be replicated into a new three waters entity. The processes that we have identified to date have been listed below, however it is unlikely that this list is comprehensive.

- Building and resource consent applications where it is essential to identify where underground services exist in relation to the proposed development/construction. Currently it is common for developers or builders to meet with Council staff (which may include three waters engineers) to discuss applications.
- Building and resource consent applications where the installation of infrastructure is involved and needs to be consented to by Council typically draws on expertise from the three waters staff.
- Access to GIS data and asset information held by the engineering teams/three waters engineers by other parts of Council will need to be preserved. Planning and consents typically need to access this information from time to time and it is not uncommon for these teams to have direct access to this information.
- Customer services needs to be managed, including consideration of whether there can/should be a single point of contact for a ratepayer, and if not the development of a clear information campaign.
- Processes for obtaining LIM and PIM reports from councils and three waters entities will need to be developed, as councils may no longer hold up to date information (or institutional knowledge) about properties or may not have the expertise to be able to assess that information.
- If stormwater assets are transferred, there will be a need to develop relationships and processes for the roading and urban planning teams to work with the three waters entity in stormwater design and hydraulic modelling. These may also require the inclusion of other areas of Council such as parks and open spaces.



Approval for vested assets

When developers install infrastructure to service a new development area they will typically “vest” that infrastructure in the council once title has been granted for the development (and the development is complete).

As part of this process, resource consent applications, and some building consent applications require the proposed infrastructure to be reviewed by Council’s engineers to receive “engineering approval”. This is a formal sign off to certify that the proposed infrastructure is of an appropriate size and standard to be connected to Council’s network and to service the proposed development.

Once the infrastructure has been installed (and during its installation) councils will also typically carry out inspections to ensure that the infrastructure is consistent with the engineering approvals that were granted. These inspections may be carried out by at the same time, and by the same people, that are undertaking inspections of other infrastructure in the development.

In the event that a new water entity takes ownership of any vested three waters assets, processes will need to be developed to transfer the responsibility to grant engineering approval for three waters asset to the new water entity. This may result in delays to the granting of resource consents or additional costs for developers.

Mixed use or strategic property

If three waters assets are transferred to a new service delivery entity, one of the key pieces of work that will need to occur as part of the transition will be the identification of which assets should transfer to the entity. Any such transfer will clearly involve the underground pipe network and above ground treatment assets that can be easily identified as being critical to the provision of three waters services.

However, in many cases councils may have assets that are designated as being used for three waters activities, but which have either a mixed use, or have little to no use in the delivery of three waters services. Such assets may include reserve land used for water catchment, or land upon which treatment plants (current, decommissioned, or earmarked for the future) are sited.

There may be strategic reasons why councils may wish to retain some of these assets even when the three waters activity is transferred. In some cases this may mean that land may need to be formally subdivided into separate titles or redesignated for an alternative use. In addition, councils may need to seek legal advice regarding the future use of land acquired under the Public Works Act or bequeathed.

Civil defence and emergency management

Councils are responsible for coordinating civil defence responses within their districts and communities. Engineers are typically heavily involved in the civil defence and emergency management teams within a council and are highly valued for their knowledge of the networks and potential areas of risk.

If the staff that are responsible for the delivery of three waters services are transferred to a new three waters entity, it will be essential that a level of expertise remains local to each district to maintain emergency response capability. While civil defence operates in a consistent manner nationally, and uses a common response framework, local knowledge of networks is critical in ensuring an efficient and effective response.



Joint training between the three waters entity and councils should also occur to facilitate closer relationships and a more coordinated response. We understand that territorial authorities already undertake joint regional civil defence training which includes regional councils and would anticipate that three waters entities would take part in this.

Council as a water user

In many cases councils can be high users of water in their districts. Councils often use large volumes of water to fill and operate swimming pools, or to irrigate sports fields or public parks. While some councils charge themselves for the consumption of this water (effectively through an internal transfer from a parks budget to a water budget) this charging usually involves no actual transfer of cash out of the council.

When a new water entity is established, councils will have to pay the new three waters entity for any water that they consume. This cost, particularly for the irrigation of fields and reserves, could be significant. Councils may therefore wish to consider other options for the supply of water to their parks and reserves (such as the installation of private bores).

Transition planning

We anticipate that the transition process to the Government proposed option will be through a centrally lead and prescribed process. We would expect that it would require resourcing from the councils and contain workstreams that are likely to include the following:

- Transition management
- Assets & Infrastructure
- Service Delivery
- Communications & Engagement
- Iwi/Māori
- Governance
- ICT
- Finance
- People & capability

There are however a number of actions that it would be useful to undertake in the event that Council (and its regional partners) wishes to “opt in” to the reform programme, or alternatively to “opt out” but move into an Otago-Southland entity that would benefit Council regardless of the Government programme. These include:

- Complete a strategic review of property held by the three waters team to identify property that should remain with the organisation and property that could transfer to a new entity. This may include subdivision of parcels of land.
- A review of long term plans to reprioritise projects both within and outside of the three waters space and consideration of whether any projects should be advanced or delayed to ensure that they get completed by a new entity.
- Developing processes and systems that will be needed to enable effective working relationships with a new water entity.



- Managing communications with staff and ensuring that staff have a clear understanding of the transition process and what it may mean for them.
- Consideration of short and long term resourcing, including a post three waters operating structure, and the resourcing of three waters during the transition to a new entity.
- Preparing an engagement and communications plan to communicate the impact of the change to the community.



Appendix A Sensitivity testing

Our financial modelling relies on a number of different assumptions which may alter the comparative performance of each entity. While we believe that the assumptions used are appropriate, this appendix examines the impact of these assumptions on the debt and household charge profiles for both SDC and the three waters entity.

Asset values and capital delivery

Moderate impact

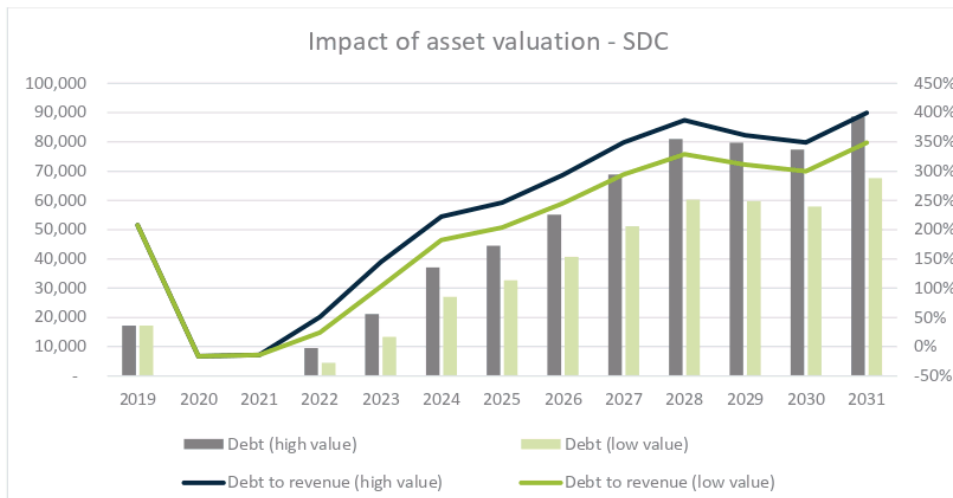
Our modelling adopts asset values at the mid-point of the valuation scale provided in completed RFIs. Our decision to use the mid-point valuations is based on:

- Comments in the WICS report that New Zealand's assets are typically under-valued by international standards.
- Corroborating evidence based on the difference in Dunedin's unit rates for asset replacement values when compared to unit rates for the same assets elsewhere in Otago-Southland. Dunedin's asset valuation is the most recent in the group, and Dunedin City Council have suggested a high level of confidence in their asset valuations through the RFI process.

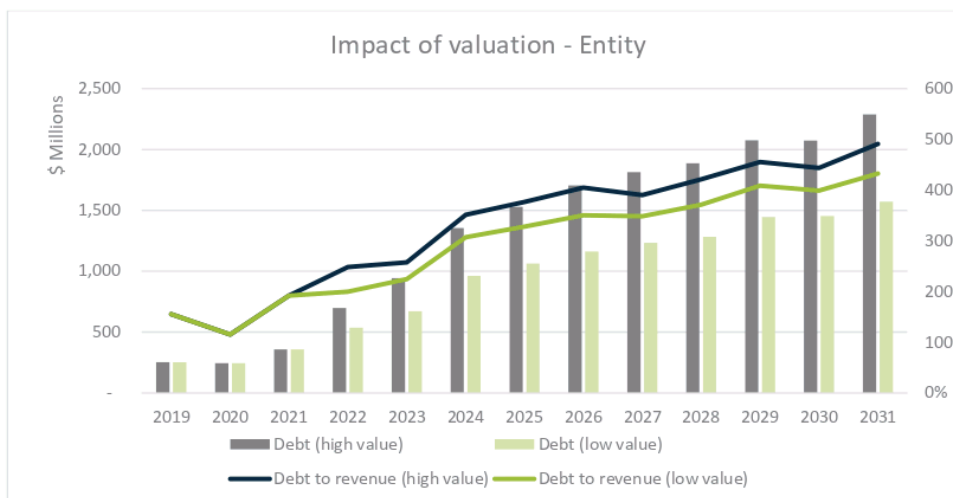
The sensitivity analysis compares the outcomes if valuations at the low end of the scale are used.

The analysis here can also be used to understand the impact of under-delivery of planned capital works at a council or entity level (the "low valuation scenario").

As shown in the figure below, SDC's forecast three waters debt would fall between \$68 million and \$89 million, and its three waters debt to revenue ratio would fall between 349% to 400% if its asset valuations are adjusted. Under either scenario debt would still be a constraint for SDC at a three waters level but would not be a constraint at a council level.



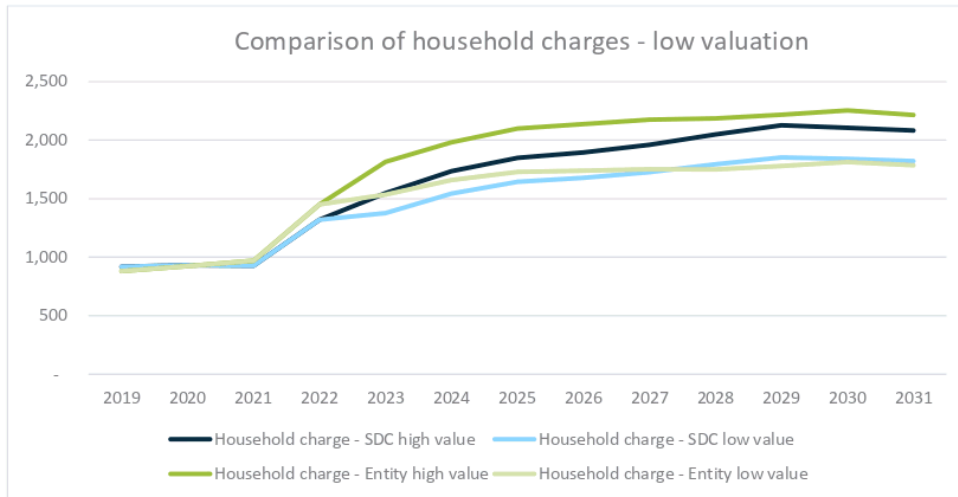
Similarly, a three waters entity's debt would fall between \$1.57 billion and \$2.3 billion, and its debt to revenue ratio between 491% to 433% if assets across the Otago and Southland councils should be more correctly valued at the low end of the scale. Debt still remains a constraint for a three waters entity under this scenario, with the debt to revenue ratio exceeding even the Moody's debt to revenue requirement of 430% (which would result in a credit downgrade from the current LGFA credit rating).



The difference in valuation used also has only a limited impact on whether the three waters entity presents as the most affordable option or not for Southland. Where a low valuation is adopted, the three waters entity is more affordable for SDC ratepayers than SDC continuing to provide three waters services itself. However, this is the only scenario in which a three waters entity would be more affordable than SDC continuing to provide services under the status quo.



The difference in valuation also has a much smaller impact (in both real dollars and percentage terms) on the average household rates at the Council level, which is indicative of the relatively low range between SDC's low and high estimates of asset replacement cost. A three waters entity would however be more resilient to large financial shocks under any scenario, as it has a larger customer base over which to spread costs, and a larger level of capability.





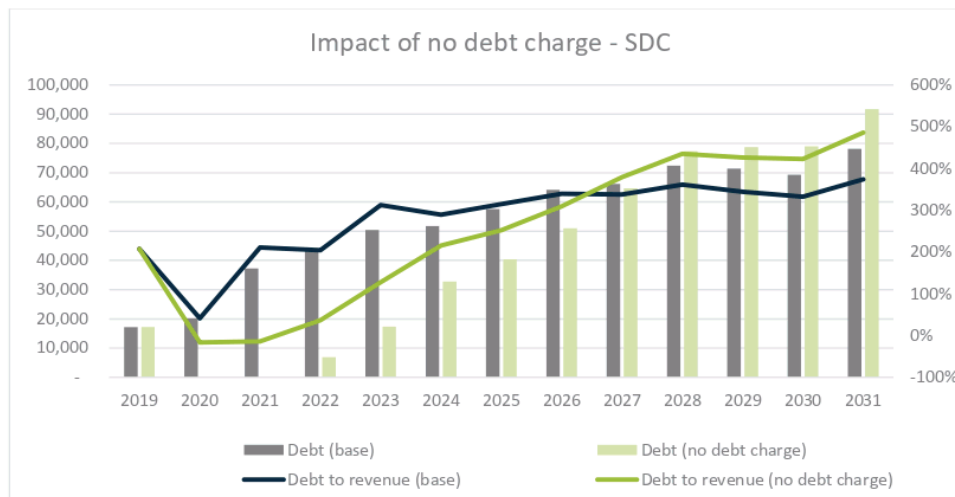
Debt repayment

Moderate impact

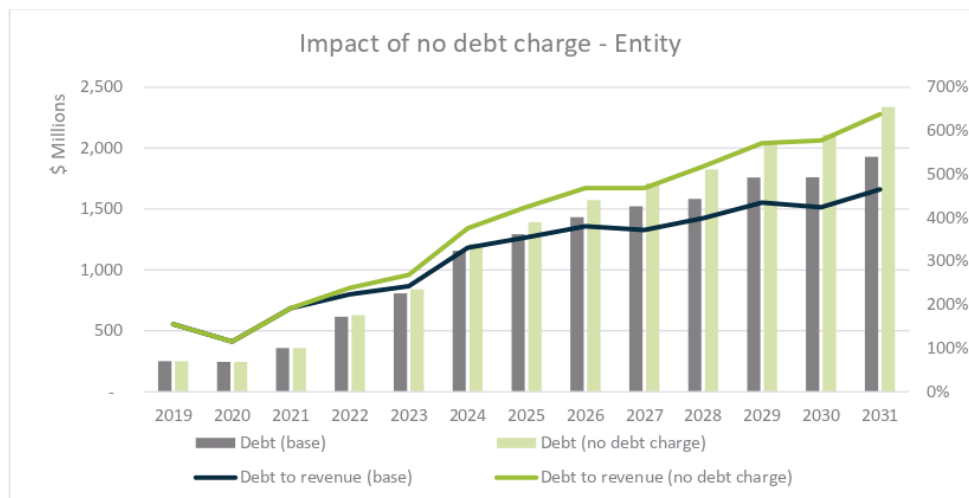
Our modelling includes an annual recovery from customers for the repayment of debt over a 30 year term. This is unusual in local government, particularly when depreciation is fully funded, however it has been adopted to try and ensure that a three waters entity (or indeed a council) continues to maintain a certain level of borrowing capacity.

This scenario tests the impacts on debt and household charges if the debt repayment charge is removed.

As shown in the figure below, SDC's forecast three waters debt would increase from \$78 million to \$92 million, and its three waters debt to revenue ratio would rise from 374% to 486% if it did not introduce a debt repayment charge. This would create additional pressure on investment within the three waters activity.

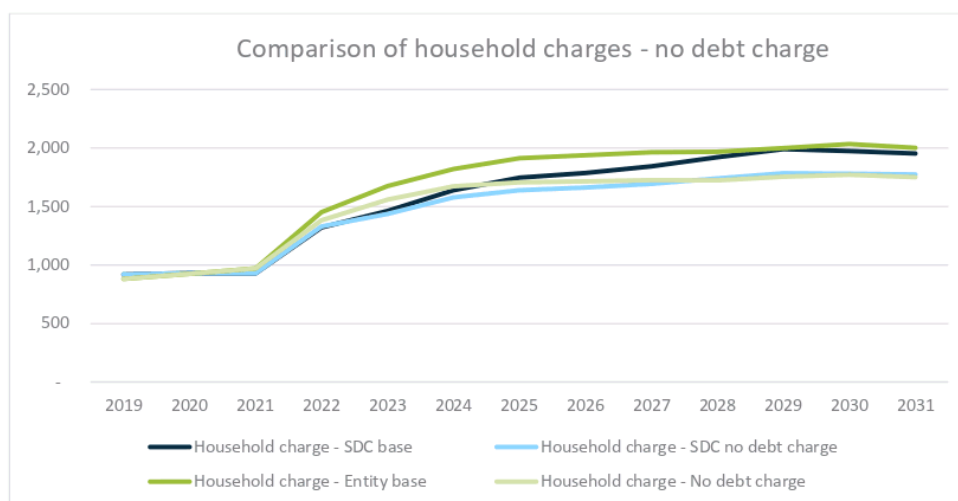


Similarly, a three waters entity's debt would increase from \$1.9 billion to \$2.3 billion, and its debt to revenue ratio from 465% to 638%. While our base case shows debt being a major constraint on the ability for a three waters entity to invest in infrastructure, without the introduction of a debt repayment charge of some description these problems would be further exaggerated.



The introduction of a debt repayment charge does have a significant impact on household three water charges. The introduction of such a charge will result in charges that are 10% higher for SDC, or 16% higher in the three waters entity than they would otherwise be. Importantly though, over time this difference decreases as the debt repayment charge results in a reduction in interest costs.

In addition, it is worth noting that the introduction of a debt charge, or not, can make a difference in the overall most affordable option. In the event that no debt charge was imposed by either entity, then the delivery of three waters services would be cheaper through a water entity than under the status quo.





Appendix B Methodology

Review of RFIs and asset registers

As a consequence of signing the Government's Memorandum of Understanding in July 2020, all councils in the Otago and Southland regions were required to return a request for information regarding the delivery of three waters services. The completed responses were provided to the Government, and Morrison Low at the end of January 2021.

Morrison Low and WSP reviewed the content of the RFI responses to identify challenges and opportunities for service delivery in the regions.

The content of the RFIs was predominantly investment and financially driven, with additional information also provided about compliance to various regulatory standards and asset performance. Most information was quantitative in nature, with only limited qualitative data included.

Councils were asked to apply confidence grades to most of the information contained within their RFIs. These confidence grades ranged from A1 being extremely reliable, through to D5 which is effectively a guess. The level of confidence that councils expressed for different pieces of information varied widely between councils, and it was also clear that each council adopted a different approach to applying a confidence grade to information (this was an exercise in subjective judgement). Where we have relied on information from RFIs in our analysis, we have made no adjustments to reflect varying levels of confidence in the underlying data.

Asset registers were reviewed, standardised and cleansed to reduce errors. Data from asset registers was analysed and used on various reports and queries of the combined asset register database.

On site interviews

Morrison Low conducted on site interviews at each council in the Otago and Southland regions during the course of our three waters review. On site interviews were conducted at SDC on 4 February 2021.

During the on site visits, we interviewed:

- Cameron McIntosh (Chief Executive Officer)
- Matt Russell (General Manager Infrastructure)
- Trudie Hurst (General Manager Customer Delivery)
- Anne Robson (Chief Financial Officer)
- Janet Ellis (People and Capability Manager)
- Dave Inwood (Asset Manager Waste Water)

During the onsite interviews we sought to understand what the qualitative impacts of three waters reform would be on Council. This included understanding where three waters roles provided services to, or received services from, other parts of the organisation, and what the major challenges and opportunities are for the district. We also sought to identify the processes and interaction points that may need to be replicated in the event that three waters services are provided by an aggregated delivery model.



Financial modelling

Our modelling has used the mid-point between the “low” and “high” estimates for asset replacement cost that were included in each council’s RFI responses. This is consistent with commentary from the Water Industry Commission of Scotland, who in their report for the New Zealand Government (the WICS report)¹⁶, indicated that they believed assets in New Zealand to be significantly under-valued.

Our financial model predicts the potential future household charge based on the total funding requirements under our standard modelling assumptions, and assumes that:

- The proportion of revenue collected from households, commercial businesses, fees and charges, or other revenue remains the same throughout the modelling period (i.e. if 75% of total water revenue is collected from households in 2019, then it is assumed that 75% of water revenue will be collected from households in 2031 as well).
- Any new connections to the water network will also connect to the stormwater and wastewater networks (or at least pay the same charge as a connected property).

Assumptions

- Planned capital investment has been determined by reference to the investment plans set out within SDC’s completed RFI. We have used the “constrained” investment plans, and where appropriate have adjusted these to reflect:
 - Potential under-valuation of assets and unit prices for asset replacement (as outlined below).
 - Additional renewals investment as outlined below.
 - Additional costs for the upgrade of wastewater treatment plants to meet future discharge standards.
- Asset values - we have applied the mid-point replacement costs for asset values from each council’s completed RFI. This reflects an uplift in values compared to those used in annual reports or asset management plans. This uplift has also been applied to the estimated cost of future capital expenditure, and depreciation charges.
- Savings – operating and capital savings derived by the entity are based on the WICS report which estimates potential capital expenditure efficiencies of 45% after 30 years, and between 10 – 40% operating efficiencies in 10 years (we use 20% over 10 years). This has been turned into annualised capital and operating efficiencies of 1.25% and 1.84% respectively.
- Compliance costs – we have included a 16% uplift in operating expenditure for the delivery of drinking water based on our previous experience and analysis of post-havelock north incident costs within Hawke’s Bay.
- Renewals – we have assumed that all councils will have a renewals spend that is the greater of:
 - The estimated renewals spend from completed RFIs.
 - Our estimated required renewals based on remaining useful life of pipes.
 - 80% of annual depreciation expense.

¹⁶ Water Industry Commission of Scotland, *Economic analysis of water services aggregation: Report prepared for the Department of Internal Affairs*. Retrieved from [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/Economic-analysis-of-water-services-aggregation-Stage-One-Report.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/Economic-analysis-of-water-services-aggregation-Stage-One-Report.pdf) on 6 April 2021



This helps provide a like for like comparison across options and between Councils, and also as we expect that an economic regulator would bring greater focus to areas such as depreciation and renewal expenditure.

- Depreciation – depreciation is calculated based on the average depreciation rate used across the councils of the Otago and Southland regions for each water type. Depreciation is fully funded in our model in order to provide a like for like comparison across options and between Councils, and also as we expect that an economic regulator would bring greater focus to areas such as depreciation and renewal expenditure.
- Timing – we have assumed that a new entity would take over operations from 1 July 2024. We have assumed that compliance upgrades will not commence before the earlier of:
 - 2024
 - Two years prior to the expiration of the resource consent for the underlying plant.
 - 2031
- Interest – we have assumed an interest rate of 3% in our modelling.
- Debt repayment – we have assumed that an additional charge will be levied for the repayment of debt, as the entities (or indeed councils) would otherwise reach debt limits rapidly. We have assumed that this charge is based on a 30 year repayment period for debt.
- Stranded costs have been estimated using Council's disclosed overheads charges to three waters activities and are based on our high-level estimates of costs which may be released if three waters activities are removed from councils. These estimates are based on discussions with councils and do not include detailed financial analysis of overhead allocations.

Ngāi Tahu Takiwā

In comparing the future household charges for the Ngāi Tahu Takiwā against the projections for Otago and Southland it should be noted that we have not undertaken detailed modelling of the costs and benefits of either Ngāi Tahu Takiwā model:

- The projections for Ngāi Tahu Takiwā do not include additional costs for compliance with increased enforcement of drinking water standards – in Otago Southland we allowed for 16% of existing drinking water operating costs as an additional cost.
- The projections for Ngāi Tahu Takiwā also do not include additional costs for the repayment of debt over time (without which a three waters entity was constrained in its ability to invest in Otago and Southland) – household charges in Otago Southland would be \$1,750 if this debt charge was not imposed.
- The projections for Ngāi Tahu Takiwā do not include organisational costs or efficiencies from three waters aggregation. In Otago Southland, the net impact of this was a 6% reduction in operating costs by 2031 when compared to simple aggregation and we would expect the savings to be greater for a Ngāi Tahu Takiwā model

Our estimate is that the net impact of the above is that a Ngāi Tahu Takiwā model will have a lower average household charge than an Otago Southland entity by approximately the amount of savings that the entity could generate due to efficiencies.



Appendix C Assumptions regarding entity design

This report has adopted the following assumptions regarding entity design. These are based on communications from central government, along with the principles and objectives for reform from the Otago and Southland councils. In addition to outlining what the assumption is, we have also described below the impact on our modelling of that assumption being wrong, and the source of the assumption.

In some cases, we would anticipate that if the proposed entity does not address the key assumption, or the underlying problem that our assumption is seeking to address, then it would not be an acceptable model for the councils.

Issue	Assumption	Source for assumption
Ownership	The entities will be publicly owned. Any ownership in the entities by councils will be unlikely to have any beneficial rights associated with it.	Government information
Governance	Entities will be governed by professional, competency based boards. Mechanisms will be put in place to ensure that Council and mana whenua have a role in governance.	Government information
Assets	The entity will be asset owning, and three waters infrastructure currently owned by councils will be transferred to the new entity.	Government information
Debt	All existing three waters related debt will be transferred to the new entities.	Morrison Low assumption based on asset transfer. Would undermine proposals if this was left out.
Stormwater	The provision of stormwater services, and associated assets (other than roads or regional council flood protection assets) will be transferred to the new entity.	Latest advice from Government, also a clear desirable outcome based on conversations with councils
Revenue and charging	A single charging mechanism/approach to be applied to all customers of the water entities (e.g. a single rate).	Implied in latest Government communications "Cost sharing across communities"



Issue	Assumption	Source for assumption
Economic regulation	<p>An economic regulator will be established (or set up within an existing agency) to regulate the water sector and seek operating and capital investment efficiencies.</p> <p>Based on similar organisations in other jurisdictions and industries in NZ it will not only regulate prices, but also investment and investment planning</p>	Implied in latest Government guidance "Economic regulation"
Investment planning	<p>Legislative mechanisms to require entities to work with councils. Required to invest in infrastructure that supports spatial plan.</p> <p>Entity will be empowered to make its own decisions regarding investment for compliance or renewal of infrastructure but may have to adopt LTP investment plans (particularly for growth) on establishment.</p>	Morrison Low assumption
Investment returns (dividends, interest, or overhead reimbursement)	We have assumed that there will be no dividends to owners, or any other return to council owners (whether to compensate for stranded overheads or otherwise).	Morrison Low assumption
Borrowing	We have assumed that the entity would not be able to obtain borrowing at a rate that is any more favourable than the current rates afforded to councils that are members of the LGFA	Morrison Low assumption (note Government correspondence assumes a more favourable rate is available).
Taxation	We have assumed that the three water entities would have the same tax status as local authorities (i.e. they would be exempt from income tax)	

Appendix D - Situation analysis Ngāi Tahu Takiwā



Current situation analysis

Three waters – Ngāi Tahu Takiwā

May 2021



Document status

Job #	Version	Approving Director	Date
2578	2	D. Bonifant	May 2021

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Introduction

The Ngāi Tahu Takiwā situation analysis is a high level review carried out based on analysis of information provided by the twenty one territorial authorities of the Takiwā. The data considered includes:

- All councils' responses to a recent Request for Information (RFIs) by the Department of Internal Affairs.
- Asset registers and valuation reports from all councils except for the Chatham Islands, and Waimate District Council.
- Other sources including infrastructure commission reports, Statistics New Zealand data, reports prepared for the Department of Internal Affairs on potential upgrade costs for meeting new standards available on the three waters reform website (www.dia.govt.nz/Three-Waters-Reform-Programme) and previous three waters work carried out by Morrison Low for the Otago Southland three waters office.

This report was commissioned by the Otago Southland Three Waters Office and provides information and commentary of the aggregated situation across the Takiwā. It highlights issues, risks and opportunities facing the region but does not seek to highlight the performance of any individual councils within the region.

In addition, we note that:

- All analysis and discussion is at Takiwā level. It is not about ranking council performance.
- The analysis relies on information provided in the RFI's but does not in and of itself allow for the confidence ratings that were applied to that information.
- Analysis also includes an additional scenario based on Morrison Low's estimates using the information provided by councils and allowances for investment required for system upgrades to meet new standards, adjustment of valuations using information provided in the RFIs.
- The analysis was completed under urgency with limited time available to engage with councils to interrogate any issues with underlying data.
- All financial information is uninflated.
- Reporting at the Takiwā level provides the first aggregated view of three waters at this level. We note that aggregation at this scale can present a picture that looks like the middle or in some case reflects the largest population area. That can mask the issues and challenges which lie at the extremes or in this case individual councils. In some cases, we have highlighted councils or a group of councils where it is relevant to address this.

On 30th April Morrison Low presented an initial analysis of the Ngāi Tahu Takiwā to a hui of the councils in the Takiwā. This report presents the same information but provides the context for the data. It also now includes updated information which was provided following that workshop. The updated data means the following has changed since the 30 April presentation.

- Takiwā wide water revenue in 2020 has increased from \$500 million to \$560 million
- Connected population has reduced from 88% to 86%
- The potential shortfall in planned renewals has decreased from \$400 million to zero
- The ten year investment requirement has increased from \$8.3 billion to \$8.5 billion
- The average harmonised household charge has increased from \$1,690 to \$1,757

Our approach

This report has been structured to follow a logical progression that highlights the key issues, risks and opportunities facing the region. Analysis has been specifically focussed on matters which are able to clearly demonstrate these and can be easily understood without the need for comparison to individual council performance.

In particular, the report considers the following:

- The size and scale of the area, which is relevant given the Government's focus on size and scale as a key driver for reform.
- The future investment needs required to meet increasing standards for three waters, renewal of assets and support growth. These are a significant driver of future cost within the area.
- The financial impact of three waters reform on the councils and communities within the Takiwā. This provides information about future affordability of three waters services across the Takiwā.
- The current levels of service provided across the region, which are relevant as these are an important indicator of future cost and exposure to operational risk.

In the time available this report has not however considered other key aspects including:

- People, capability & capacity
- Levels of service (other than very briefly)
- Community impacts
- Council impacts

The councils of the Takiwā will need to consider these important aspects in any decision about participation in three waters reforms.

Observations

Size and scale

One of the main arguments for reform of three waters service delivery in New Zealand is that councils do not individually have sufficient scale and capacity to be able to sustainably address the challenges that are facing the sector. Through various studies into international best practice, DIA has indicated that, in its view, aggregation of water services delivery is needed to address these issues.

Relative size of Ngāi Tahu Takiwā

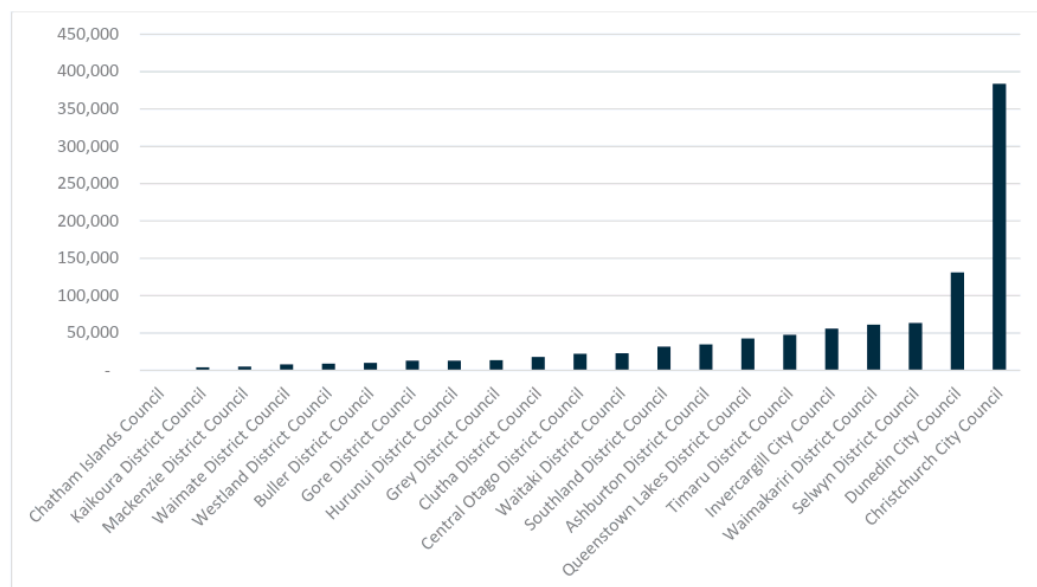
The Takiwā includes 90% of the South Island's land mass – from Kaikoura District in the north, to Rakiura (Stewart Island) in the south and including the West Coast, Te Tai Poutini. This is 40% of New Zealand's total land mass, yet accounts for only 20% of its population.

The Takiwā has over 580,000 water connections and 390,000 wastewater connections. The region has over 300 treatment plants across the three waters. There is 27,000 km of pipe network. The size of the area, the networks and number of plants in and of itself creates challenges and there are also significant differences between rural and urban services and systems e.g. provision of rural stockwater schemes, stormwater.

The annual three waters revenue from the three waters services across the Takiwā was \$560 million (2020) with an opex budget for the same year of \$467 million. It is an entity of a size and breadth quite different from any of the constituent councils.

The large area encompasses 21 councils' populations that vary considerably. The population of the Takiwā is dominated by Christchurch.

Figure 1 – The population of constituent councils varies substantially across the Ngāi Tahu Takiwā



Connection density

In their report¹ commissioned by DIA the Water Industry Commission for Scotland (WICS), noted that in Great Britain, there is a strong correlation between future investment requirements and urbanisation/population density. The same trend has been observed by Morrison Low in prior three waters studies in New Zealand. More rural areas are typically expected to cost more, on a per head basis, than denser, more urban areas.

Councils with a lower number of connections per kilometre of pipe are likely to face increased costs per connection, particularly when it comes to investing in upgrades to meet the new environmental and regulatory standards of the renewal and depreciation of those assets.

The Takiwā's average is 29 connections per kilometre of pipe for water and 58 connections per kilometre for wastewater. This appears to be higher than the average for small councils in the Water New Zealand National Performance review of 22.69 connections per kilometre for water and 55.8 connections per kilometre for wastewater.

However, the Takiwā wide figure hides the large differences in connection density for water with (at least) one council having less than four water connections per kilometre of pipe for water.

29
connections per km of
pipe for water

Figure 2 - Large difference in connection density for water



¹ Water industry Commission for Scotland, *Economic Analysis of water services aggregation* ([https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/\\$file/Economic-analysis-of-water-services-aggregation-Stage-One-Report.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-waters-reform-programme/$file/Economic-analysis-of-water-services-aggregation-Stage-One-Report.pdf))

Connected population

The WICS report on three water reform in New Zealand highlights that New Zealand does not have a particularly high proportion of its population connected to water services, with some councils having as low as 35% of their population connected, and 13 councils having less than two thirds of their population connected to water services.

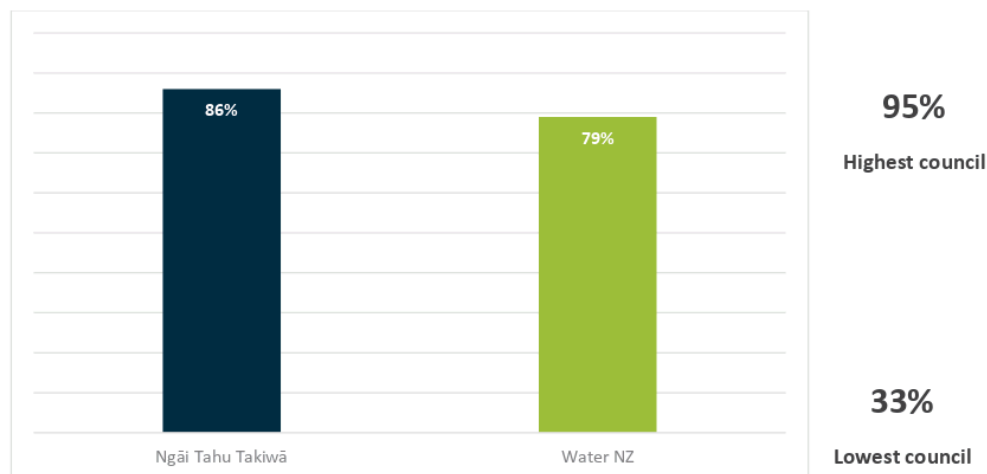
While the WICS report does not go so far as to suggest that higher connection rates may create operating efficiencies, it does state that, from a regulatory perspective at least, it is desirable to have a high rate of connection to ensure consistent levels of service. We note that the Water Services Bill treats all water suppliers equally and requires all suppliers to meet drinking water standards.

Perhaps more importantly from a New Zealand perspective and in the context of three water reforms, low connection rates may also be indicative of a larger number of private water schemes (i.e. privately owned or operated schemes that service multiple properties), or simply a large number of rural properties connected to private supplies (i.e. tanks or bores which service a single property). With increasing regulatory requirements and the enforcement of drinking water standards, private water schemes may pose a significant financial risk for councils who under legislation can, in certain circumstances, be required to provide the service.

The connection rate across the Takiwā is higher than the New Zealand average but again the data masks the fact that seven councils have less than 70% of their population connected and four less than 50%.



Figure 3 - Percentage of population connected to Council water supply



Connection rates for wastewater services are broadly similar with an average of 83%, though slightly lower than drinking water, a trend which is consistent with Water NZ's national performance review data.

It is possible that the percentage of connected population in some areas is understated due to the classification of farm properties, and the presence of multiple dwellings on some farm sites.

Investment needs

Investment in infrastructure is the most dominant driver of costs for the delivery of three water services in the Takiwā, and nationally. There is growing evidence, cited by DIA, WICS, the Office of the Auditor General and in work undertaken by Morrison Low, that the local government sector, and three waters services particularly, requires significant investment in infrastructure over the next 30 years.

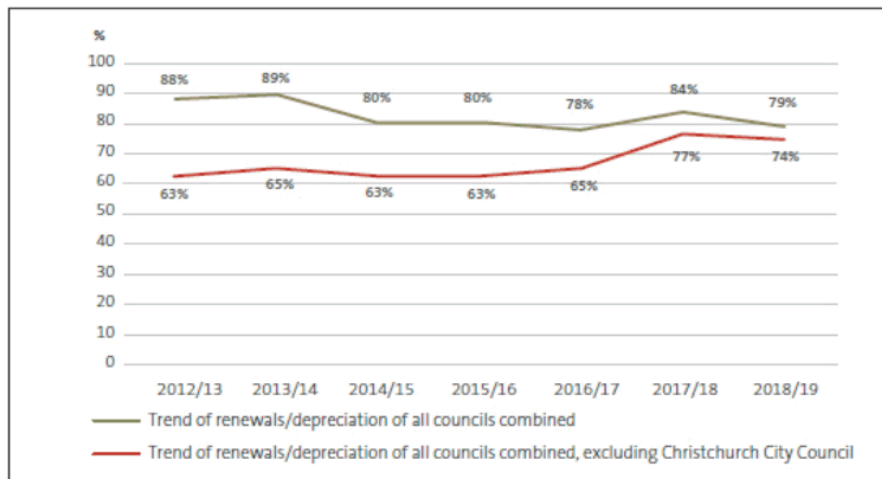
This section of the report outlines the future investment requirements for the Takiwā, and the impact that those requirements may have on future water charges.

Renewals vs depreciation

There is growing evidence of under investment in three waters infrastructure across New Zealand. In 2018 we undertook a desktop analysis of council LTPs across New Zealand for the Department of Internal Affairs. In that project we identified that, on average, councils in New Zealand were only spending around 78% of their depreciation funding on renewals.

Similar concerns have been expressed by the Office of the Auditor General for a number of years, most recently in their report, *Insights into local government: 2019* which presented historical data showing underinvestment in renewals since 2012/13.

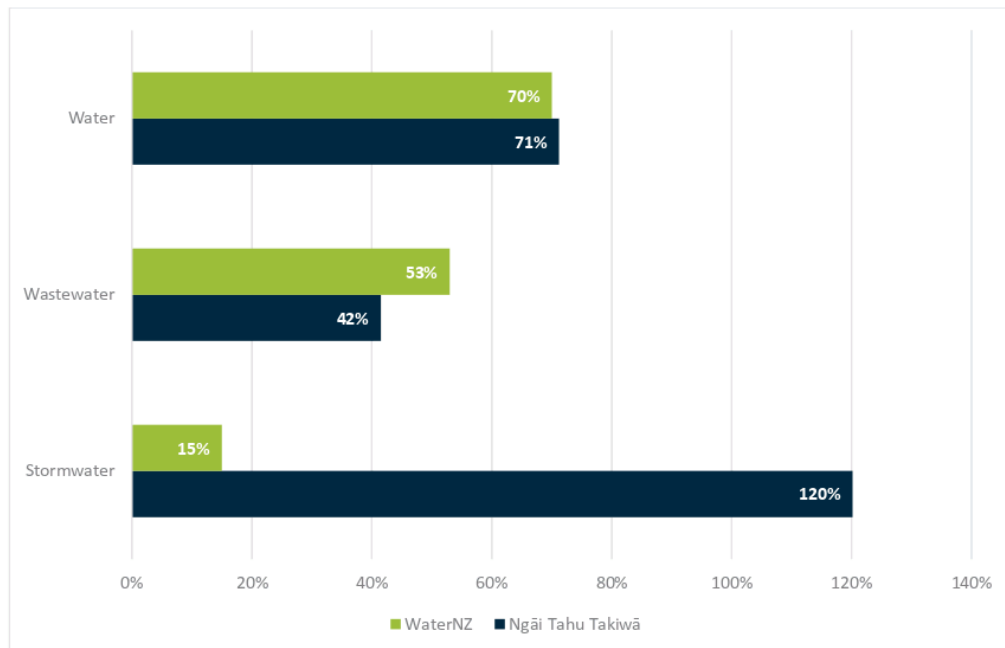
Regional and national under investment in renewals



Source: Office of the Auditor General, *Insights into Local Government: 2019* (retrieved from <https://oag.parliament.nz/2020/local-govt/part1.htm> on 22 February 2021)

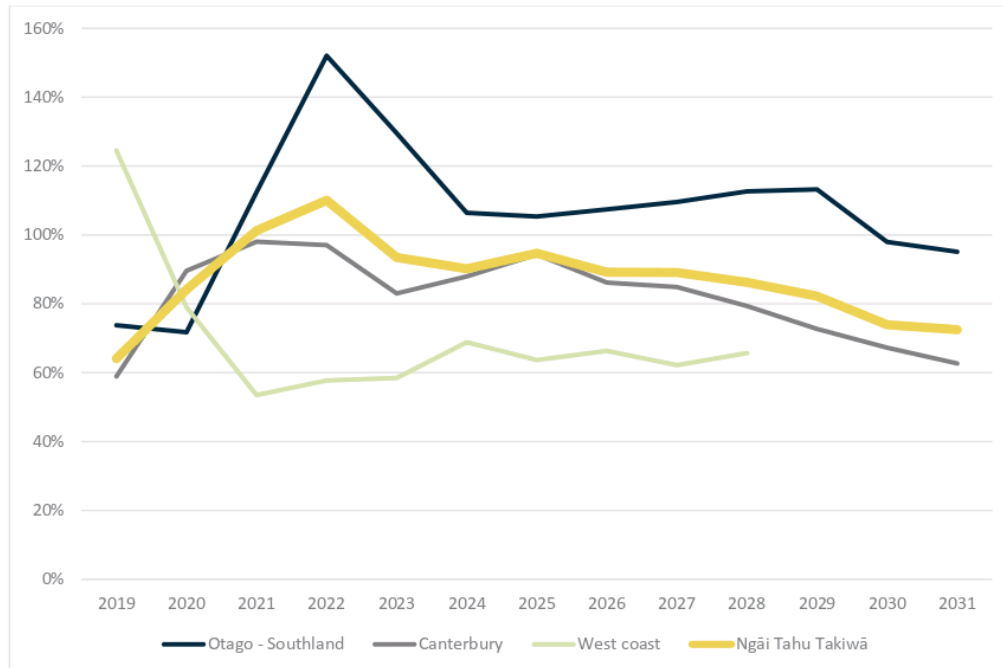
While a single year view is not appropriate for long run assets, renewal expenditure within the Takiwā in 2018/19 is entirely consistent with the trend identified above. Stormwater is an outlier due to high levels of expenditure within two of the city councils.

Figure 4 - Combined renewals as a percentage of depreciation v Water New Zealand National Performance Review 2018/19



We have also considered the future projects using the same metric. The chart below shows that a similar trend is projected forward for the next 10 years across the Takiwā. The combined renewal expenditure across the Takiwā is projected to be less than depreciation in almost every year. We note that fifteen of the twenty-one councils in the Takiwā are projected to spend less on renewals than depreciation over the next 10 years.

Figure 5 – Combined renewals as a percentage of depreciation (RFIs)



Future three waters renewals

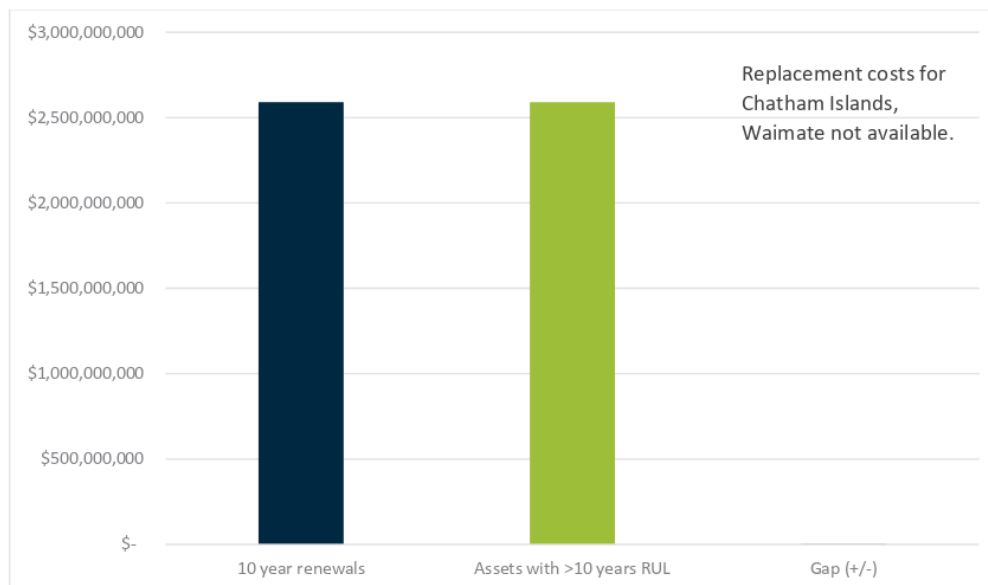
\$2.6 B

of three waters renewals
required within ten years

A review of asset registers indicates that, based on the remaining useful life of assets the Takiwā requires approximately \$2.6 billion of renewals work during the next ten years. This is consistent with the combined renewal expenditure across the Takiwā which is also \$2.6 billion over the same time period.

This Takiwā wide comparison provides comfort over forecast expenditure at the aggregate level, but it does in some cases mask individual council comparisons of these data sets and the comparison at water, wastewater and stormwater level. For example, in one council the planned renewals are only 30% of the value of assets that have less than 10 years remaining life.

Figure 6 - 10yr planned renewals vs Replacement cost of assets with less than 10 yrs remaining life



Ten year investment need

The total 10 year three waters capital investment programme is set out in the chart below. This includes renewals, levels of service and growth expenditure and allows for the combined response to the changing standards and water reform process.

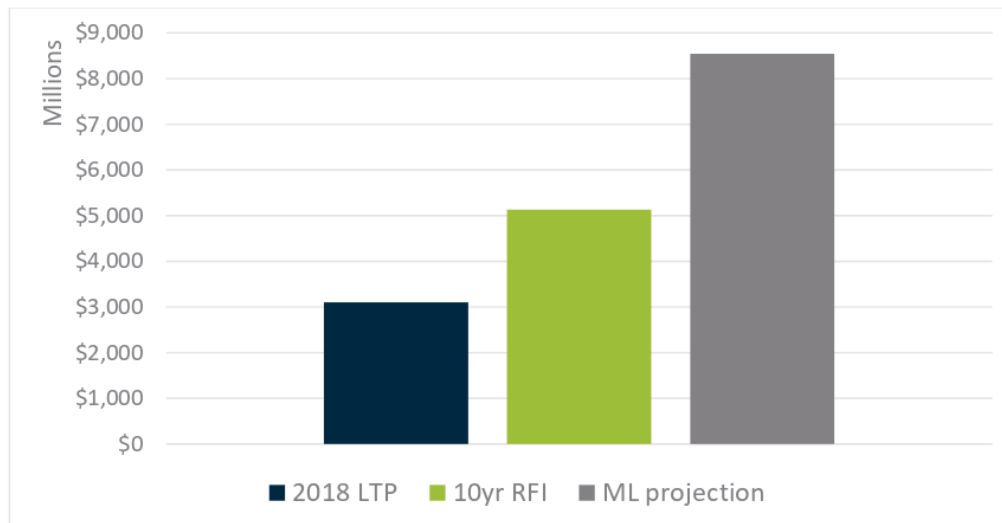
The chart shows the 2018 LTP projections, the draft 2021 LTP projections and our estimate of the future LTP estimates.

- The combined three waters capital investment across the Takiwā has grown by 70% since the 2018 LTPs – from \$3 to \$5.1 billion. This signifies the step change being driven by three waters reform.
- The Morrison Low estimates presents a scenario which indicates the scale of the investment may be greater than that and could be as high as \$8.5 billion².



² This scenario considers renewals based on comparing planned renewals over 10 years to the replacement cost of assets with less than 10 years remaining life, includes additional costs for upgrades to Water treatment plants and Wastewater treatment plants estimated by DIA as being required (where not allowed for by Councils) as well as an adjustment to asset values to demonstrate the impact that may have. WICS have stated that in their view three waters assets are undervalued in NZ and our observation from previous work is that reconciling differences in asset values are the single greatest influence on future costs

Figure 7 – 10 year investment requirement



We also note that the scale of the investment required does not diminish at the end of the current LTP period. The 'bow wave' is sustained beyond year 10 of the RFIs.

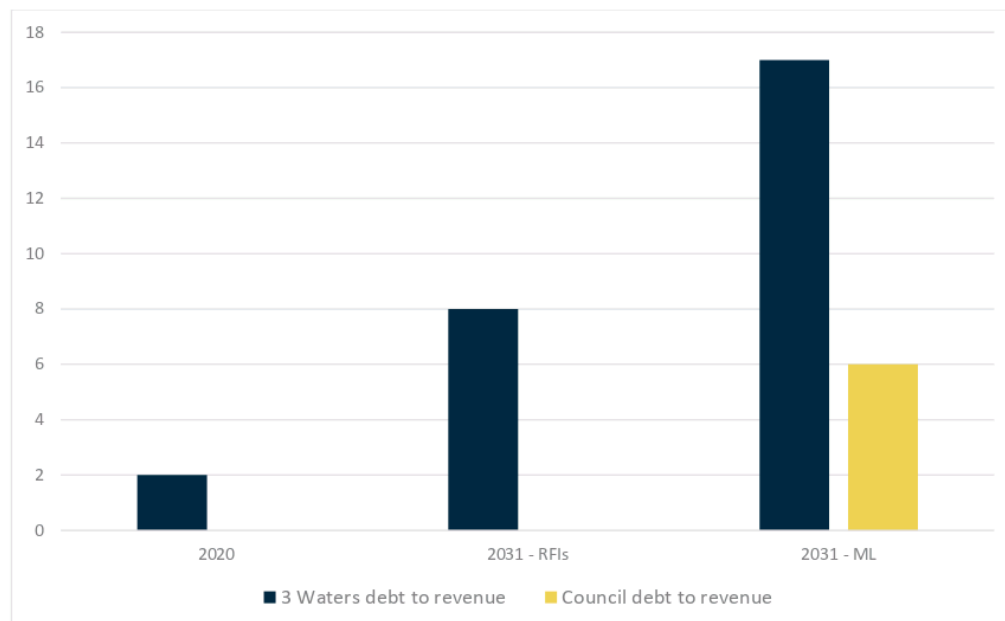
Debt

This investment will be funded through debt. This is entirely appropriate. The borrowing required to fund the investment required is significant. Debt rises to:

- Almost \$3B under the RFI investment scenario.
- Over \$6B under the Morrison Low scenario.

The chart below shows that this means that potentially six councils could breach the LGFA debt limits by 2031. The chart also shows that if three waters was considered in its own right (three waters debt/three waters revenue) then by 2031 seventeen councils may breach the current LGFA limits. While that is not a true picture as the LGFA limits do not work that way, it indicates that three waters debt is being supported by other activities (and revenue) of Council. Three waters therefore has the potential to constrain borrowing for other areas of activities.

Conversely, in the event that three waters assets, debt and revenue is transferred to a new entity, this is likely to result in increased borrowing capacity for all councils across the Tawikā.

Figure 8 - Number of councils breaching LGFA debt to revenue covenants

A three waters entity covering the Takiwā would breach both the LGFA and credit rating agency limits under both the RFI and Morrison Low scenarios. This means that the entity would need to rely on other Government programmes, subsidies or higher user charges to be able to afford the current investment programme.

Financial considerations

One of the biggest challenges cited by the government is the issue of long-term affordability of three water services. All councils in New Zealand are facing significant future investment requirements and increases in operating costs to be able to meet increasing regulatory standards and enforcement activities. The situation analysis demonstrates that councils across the Takiwā are facing those same challenges.

Average household charge

Average household charge has been used in this report as a proxy for the average price of water and is used to demonstrate the range of charges that may exist in the future compared to a Takiwā wide charge.

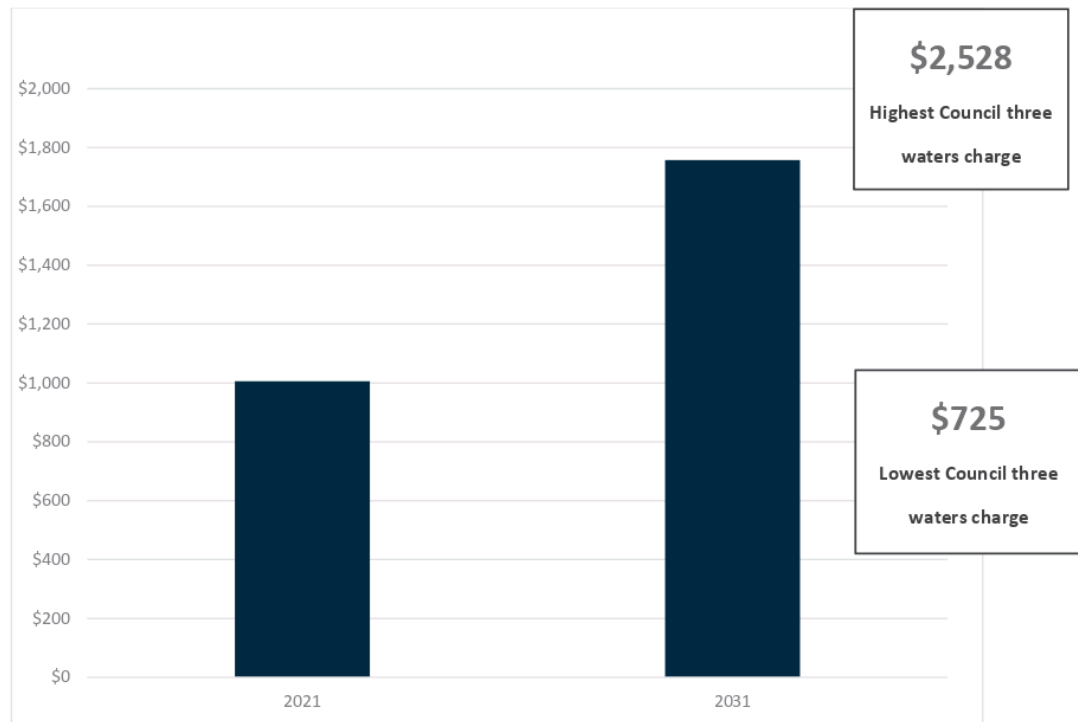
While this is useful for demonstrating the direction of travel, or potential rates increases that the sector may face, this is not representative of the average household charge. Additionally, we note that the potential projections of revenue per connection are based solely off RFI data and therefore:

- Vary in the degree to which they incorporate additional potential operating costs for the delivery of three waters services (which are not disclosed in the RFI).
- Have not been adjusted to include potential increases that Morrison Low anticipates may face the sector based on its experience in water reform and engagement with the sector.
- Do not include the recovery of increased depreciation or financing costs for investment that has been outlined as being required under the individual councils “unconstrained” investment plans.
- Do not include any potential operating efficiencies (or increased costs) that may arise through structural reform of the delivery of three waters services in the combined regions.

The chart below shows the change in the average household charge over time across the Takiwā. It also highlights the range of average household charges that could exist by 2031 across the Takiwā, with the highest household charge being almost 250% higher than the lowest.



Figure 9 - Current and projected average household charge Ngāi Tahu Takiwā



Affordability

In our view there is a clear trajectory for water charges to increase in the Takiwā. Future cost is only one side of the affordability equation and increases of the scale that exist for some councils will create affordability challenges for parts of the community and particularly those on fixed or low incomes. Water NZ has used the proportion of average household income spent on water and wastewater as a benchmark. It has cited international benchmarks as what is unaffordable as ranging from 2 and 4%. We note that one council in the Takiwā already exceeds the 4% benchmark.

There is a wide range of incomes across the Takiwā as shown in the figure below. The biggest challenge will come if costs increases are greatest in the communities that can least afford it.

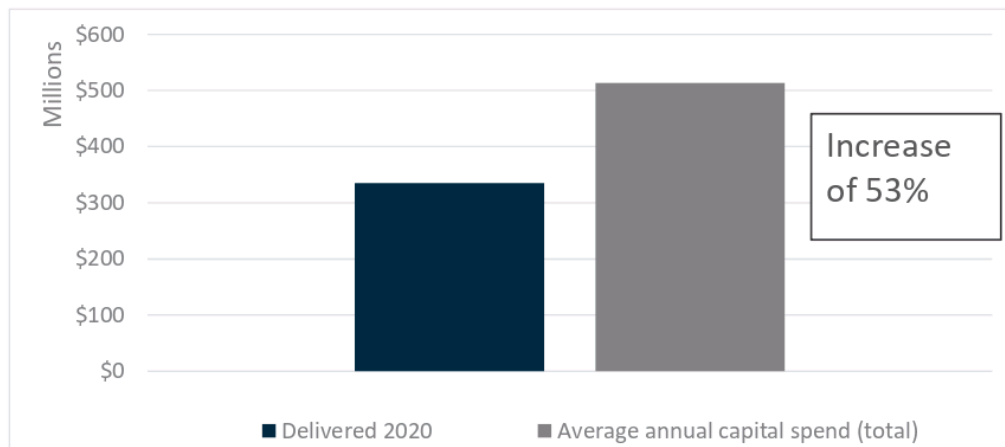
Figure 10 - Median household income



Capital works delivery

In our view there is a significant challenge to deliver the required infrastructure at an individual council level and across the Takiwā.

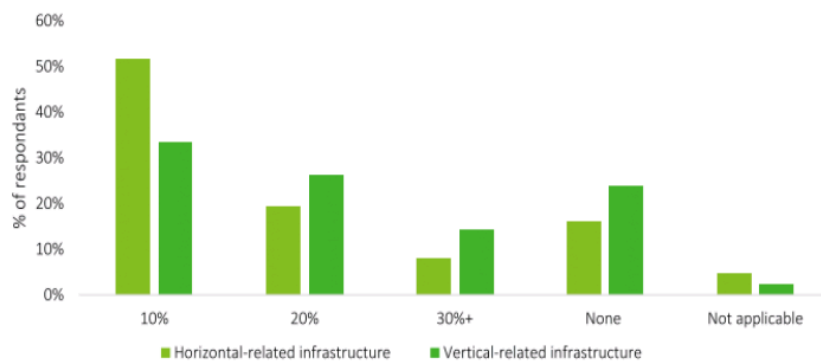
As a sector, local government in New Zealand has generally not met its targets for capital works budgets and meeting the challenge of three waters reform requires councils to significantly increase their capital works delivery. To meet the RFI investment scenario requires a 53% increase on delivery on what was achieved across the Takiwā in 2020 every year for the next ten years. If the situation is closer to the Morrison Low scenario, then the requirement is for more than a 100% increase.

Figure 11 - Historical capital works delivery vs planned future delivery

The ability of the sector to respond is also part of the challenge. A survey of construction companies in New Zealand by the Infrastructure Commission showed that 70% of current suppliers are only able to increase their capacity to deliver by less than 20%. This points to a significant constraint in the market's ability to deliver which will require dedicated and careful pipeline management to enable the sector can sustainably grow and scale operations to ensure delivery.

Figure 12 - Capacity of construction sector

Chart 28 What is your ability to increase capacity to meet the volume of work signalled in the market for infrastructure-related construction in New Zealand?



Source: Deloitte: "A better way forward. Building the road to recovery together: Construction sector COVID-19 recovery study" January 2021.

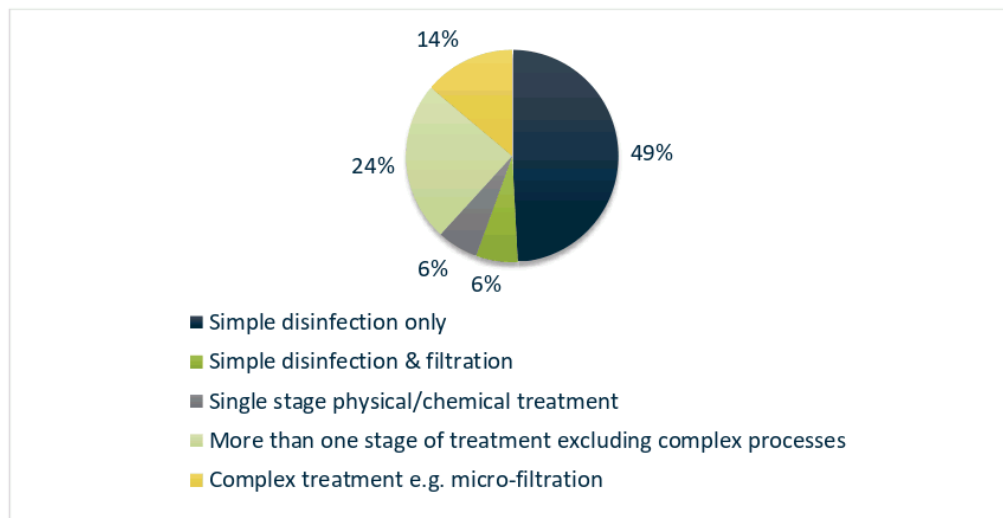
Levels of service

This section explores information regarding the treatment types of water and wastewater treatment plants in the Takiwā. Levels of service are relevant to meeting compliance requirements and community expectations. They therefore provides an indicator of potential risk and investment requirements.

Water Supply

Currently 54% of the drinking water supplied by the councils (by volume) across the Takiwā has only been treated by simple disinfection or by simple disinfection and filtration. Indications are that these 133 plants will require upgrading in order to meet protozoa requirements of the Drinking Water Standards.

Figure 13 - Highest level of water treatment by daily volume

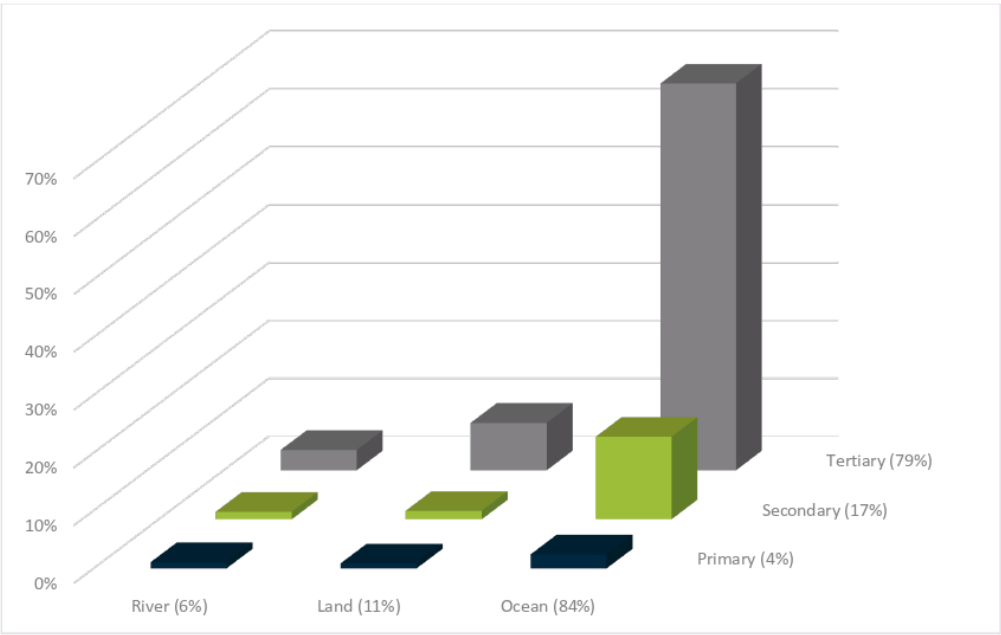


Wastewater

Currently 80% of the wastewater across the Takiwā is treated to the highest standard and only 6% of wastewater (by volume) discharges into freshwater as illustrated in the figure below. This presents a picture across the Takiwā of a service that is well positioned to meet the challenges of water reform but we note that:

- in some councils 100% of the discharge is to freshwater which with changing standards will provide a driver for investment.
- discharge to ocean covers a range of situations which again, with changing standards will provide a driver for investment.

Figure 14 - Wastewater Level of Treatment and Receiving Environment



Appendix E - Review of WICS data



SOUTHLAND
DISTRICT COUNCIL
Te Rohe Pōtae o Murihiku



Review of WICS data
Southland District Council
August 2021

**Document status**

Ref	Approving Director	Date
2636	D.Bonifant	29 July 2021
2636	D.Bonifant	12 August 2021

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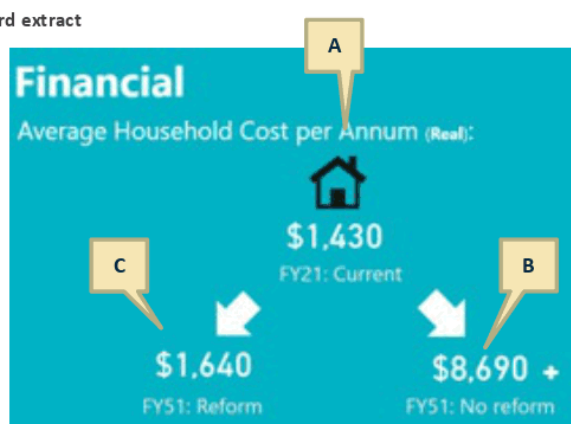


Executive Summary

This report provides commentary to provide councils support to interpret WICS calculations and how those relate to your existing council information, as well as a comparison of the approaches adopted by WICS and Morrison Low in the analysis of potential future costs with and without water reform. The key analysis of your council dashboard is of items A, B and C in Figure 1 below.

- **A** – represents the estimated average household cost using WICS modelling approach, this is not representative of actual charges
- **B** – represents the projected future household charge in 2051 without reform
- **C** – represents the projected future household charge in 2051 for **Entity D** (which is the entity that Southland District Council has been grouped into under the proposed reform), with water reform.

Figure 1 WICS dashboard extract



Given differences in the size and design of water services entities, we have not compared projected three waters charges for water services entities under the Morrison Low and WICS models.

Our review of the modelling completed by WICS, which informs items A, B and C of Southland District Council's ("SDC") dashboard identified a number of key assumptions that have been applied by WICS as having a significant impact on the projected household charges under each scenario, specifically these are:

- The assumptions used by WICS regarding the proportion of three waters revenue that is received from households, which has been assumed by WICS to be 70%, but which is 68% for SDC.
- The approach WICS has taken to determine the number of household connections, which has been to divide the connected population by 2.7. WICS assumes that there are only 4,278 household connections in SDC, compared to the 5,900 water connections disclosed in its completed RFI.
- The level of investment that WICS has assumed is required over the next 30 years. WICS has assumed a ten-year investment requirement of \$350m, which is three times higher than SDC's own estimates.
- The approach used by WICS to estimate future revenue requirements. WICS determined future revenue requirements by reference to the amount of debt that SDC would need to borrow to fund its full investment programme. Revenue is determined based on the amount needed to maintain a three waters debt to revenue ratio of 250%. Council's debt capacity is not measured at an activity level, given the lower borrowing requirements of other activities, a ratio of at least 500% is likely more appropriate.

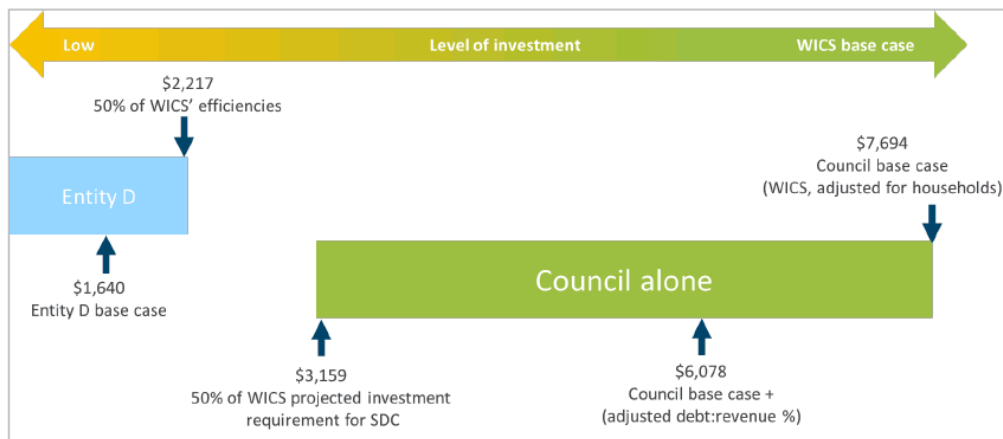


- WICS have assumed that Entity D will be able to achieve operating and capital efficiencies totalling 53.3% and 50%, respectively, over a 20 year period (from today).

To test the impact of these assumptions on the household cost projections, we have undertaken high level sensitivity analysis using the WICS models, as shown in Figure 2 below. This included:

- Adjusting the revenue from households and household connection values in all scenarios tested.
- 50% of the projected investment requirement in both the SDC and Entity D models.
- A higher (500%) debt to revenue ratio in the SDC model.
- 50% of the projected operating and capital efficiencies in the entity D model.

Figure 2 Summary of sensitivity analysis



In summary, the sensitivity testing showed that:

- When the underlying assumptions regarding percentage of revenue from households and number of connected properties are adjusted, the forecast charges for Southland are likely to be approximately 1/3 lower than included in the WICS reports for Council.
- The scale of the difference between the entity and council scenarios is likely somewhat less than WICS analysis indicates.
- It is unlikely that household charges for ratepayers in SDC could be lower from continued council service delivery than under Entity D.

Overall, we note that while the projected household charges from the WICS analysis may be the subject of some contention, in our view they are directionally accurate. That is, household charges will increase in the new regulatory environment, and SDC ratepayers are likely to have lower household charges under the proposed entity delivery model than through continued council service delivery. This is consistent with Morrison Low's earlier analysis of a Ngāi Tahu Takiwā entity undertaken for the Otago and Southland councils.



1 Introduction

The Department of Internal Affairs (DIA) has commissioned specialist economic, financial, regulatory and technical expertise to support the Three Waters Reform Programme and inform policy advice to ministers.

In mid-2020, a first stage of evidence was commissioned on the potential economic benefits of aggregating water service delivery entities in New Zealand. This was produced for DIA by the Water Industry Commission for Scotland (WICS) using publicly accessible council information and was released in December 2020. Between October 2020 and February 2021 a nationwide Request for Information (RFI) took place across all 67 councils.

This data has been used to inform several workstreams including the second stage of economic analysis found in the WICS Phase 2 report. This latest information has now been released to councils through the 'Council dashboard' and supporting reports.

This report is based upon our review of public WICS reports and individual council models provided by WICS. In some cases, the approach or assumptions used by WICS are unclear; this report focuses solely on the information we were able to access and interpret.

It is also important to highlight that there is no connection between the WICS analysis and the government's wider support package including calculation or allocation of the 'no-worse off' and 'better off' parts of the package.

1.1 Three waters reform

While this report concentrates on the financial analysis recently provided in the Council dashboards, it is important to highlight that this is only one part of the wider suite of information that councils need to consider when looking at the proposed reforms. The impacts, benefits, issues and risks of reform are far more wide ranging than just the financial impacts.

In our impact assessment report, we outlined a range of broad factors that also need to be considered in making decisions about three waters reform. At a high level, these include:

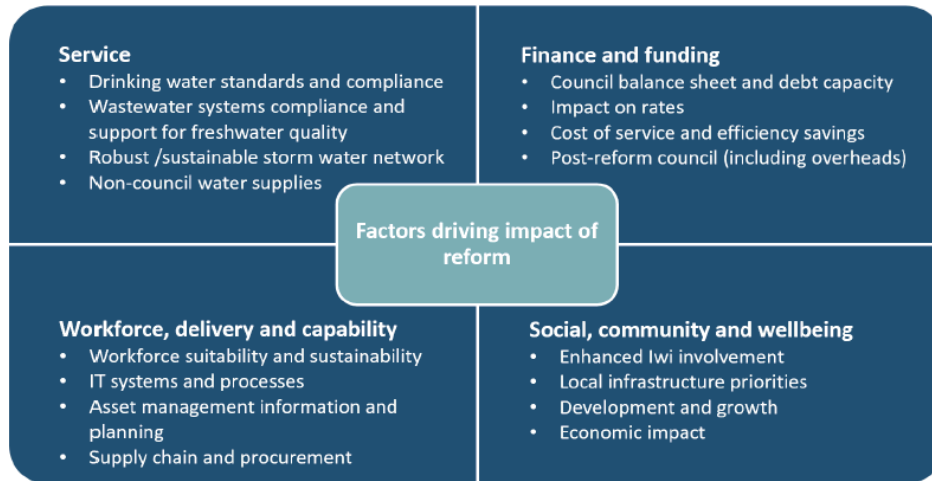
- Governance
- Compliance and levels of service
- Infrastructure investment
- Financial outcomes and resilience
- Capability and capacity
- Risks of opting in and out of reform
- Challenges with transition

Additionally, LGNZ has developed an impact matrix shown in Figure 3 below which echoes these considerations.



Figure 3 Understanding the impacts (LGNZ)

3W impact matrix



Considering these wider aspects of water reform helps to ensure that benefits, issues and risks around levels of service, capability & capacity, prioritisation of investment and impacts in communities and councils are also considered alongside the financial aspects. In some cases, there are compelling arguments for reform that are not purely financial, and similarly, there are a number of challenges associated with reform that do not transpire under a continuation of the current service delivery models.

Importantly however, the work previously undertaken by Morrison Low and the work undertaken by WICS are consistent in the message that a step change in investment is required for three waters service delivery across the country, and that this will require a change in the way that services are delivered.

As a result of the three waters work we have undertaken across New Zealand over the last 18 months, including the work that we have undertaken for Otago and Southland our view is that the likely future household costs for three waters will increase significantly for all councils as a result of meeting increased standards, regulations and satisfying a more rigorous compliance regime. Our view of future costs may not be as high as modelled by WICS, but the direction is the same.

1.2 WICS Analysis

Scenarios

Broadly, WICS compares two scenarios:

- Aggregation of three waters services into four water services entities and the associated reforms to the regulatory, governance, management, resourcing, and policy direction that support improvements ('the whole reform package').



- No aggregation of three waters services and although in this scenario some reform takes place, for example, decisions already made to introduce a drinking water regulatory system and environmental standards, the wider reforms are not as extensive as in the former scenario.

Assumptions

The assumptions WICS have used to quantify the inputs are determined through benchmarking against the UK experience. Whilst there has been some adjustment based on council feedback the potential investment requirements and ability to deliver the same efficiency gains, both key drivers of the analysis, may not be comparable in the New Zealand context. The following material factors have not been considered in their analysis:

- funding arrangements,
- national standards,
- three waters systems (% underground, pipe material etc.),
- Treaty of Waitangi and giving effect to Te Mana o te Wai,
- population density,
- geography, location and extreme rurality and
- supply chain limitations given New Zealand's remoteness.

Timeframes

WICS have undertaken the analysis over the 30 year time horizon. Responses to the RFI across the country were not consistent, where councils did not provide 30 year information, ongoing investment in growth infrastructure is assumed at the level of the final year in the data set. Undertaking future economic analysis based on a 30 year forecast is notoriously difficult especially in the context of the quality of the existing asset data. Additionally, this assumes capital expenditure follows a linear trend however we know that investment in three waters infrastructure tends to be lumpy.

More detail of the WICS analysis including methodology, impacts and assumptions is provided in Section 2 of this report along with a comparison to the relevant council based information or data.

1.3 Impact on Household Bills

WICS have used an average household charge as the key piece of information for councils and communities.

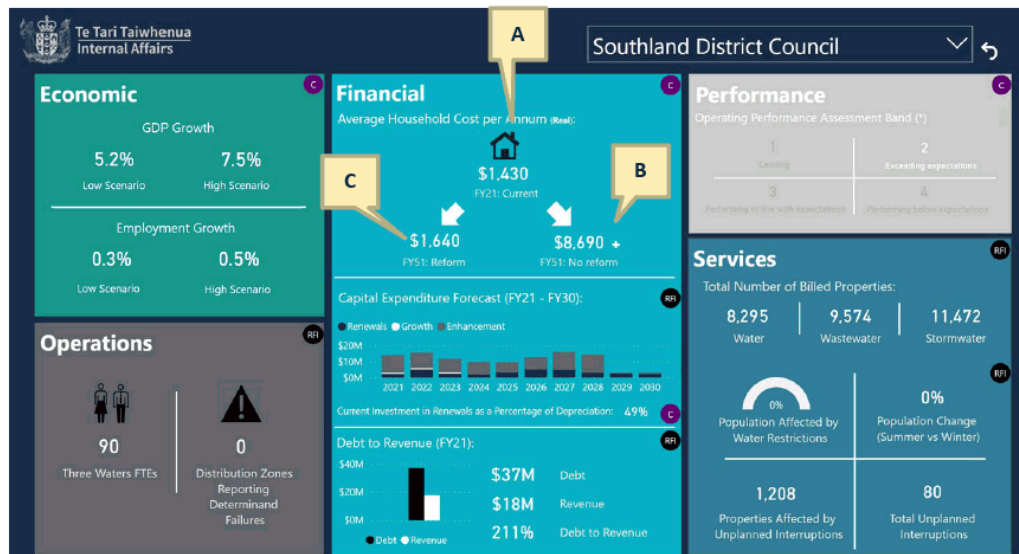
The dashboards provided by DIA present three different average household costs, represented as A, B and C in 4 below:

- **A** – represents the estimated average household cost using WICS modelling approach, this is not representative of actual charges
- **B** – represents the projected future household charge in 2051 without reform
- **C** – represents the projected future household charge in 2051 under the proposed entity for your council, **Entity D**, with water reform.

These numbers are expressed in real terms, they are uninflated and expressed in today's dollars. The approach used by WICS to determine these values is outlined below.



Figure 4 DIA Dashboard



A

To estimate current household charges for each council, WICS have (A):

- Taken the starting total three waters revenue collected by the council (including development contributions but excluding grants and subsidies)
- Multiplied that figure by 70% - which is their assumed percentage of revenue derived from households. We have noted that the 70% does generally align with majority of councils, however some councils' revenue from households is higher and some lower
- Divided that figure by the estimated number of household connections, which in turn is derived from:
 - The average of the connected drinking water and wastewater populations. The model does not use actual household connection as identified in the RFI or use stormwater connections.
 - Divided by a standard "household density" multiplier of 2.7

B

The process used by WICS to estimate future household charges (B) is the same as outlined above, using estimated future revenue requirements and estimated future household connections (which allows for growth in connections).

In order to determine the future household charge WICS have:

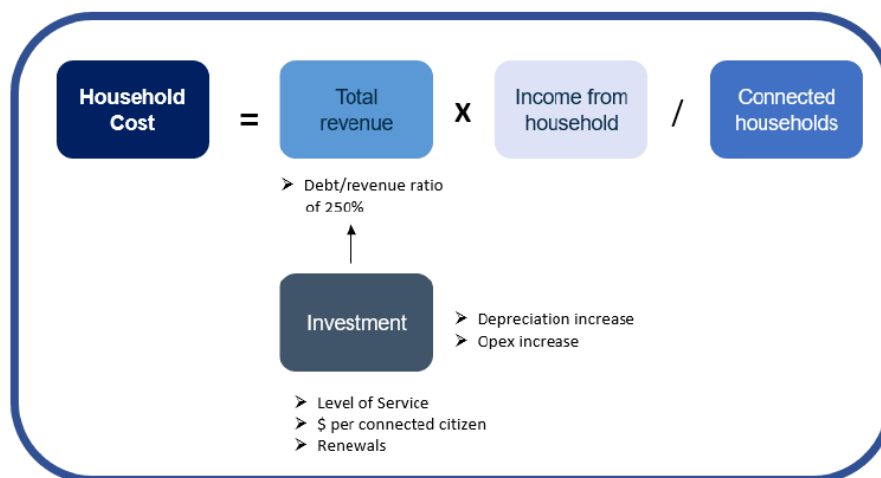
- Calculated the future required investment in growth, level of service enhancement, and renewal of assets.
 - Growth investment is assumed to be the same as disclosed in each council's RFI, with the same annual average expenditure applied across the full 30 year period if a council only disclosed 10 years of projected investment.



- Renewal investment is assumed to be 100% of the economic depreciation of assets. WICS have undertaken their own calculation of economic depreciation based on assumed asset values and lives.
- Level of service enhancement investment has been calculated using a standard approach across the country that has regard to population, land area and density. It does not reflect each council's actual investment set out in the RFIs.
- WICS have recalculated depreciation, this has increased council figures.
- Determined the impact of new investment on operating expenditure. WICS has assumed that for every \$100 of capital investment there is \$3 of additional operating costs. WICS have also included additional depreciation and financing costs for new assets.
- Determined the amount of new borrowings required to finance their modelled investment profile.
- Determined the amount of revenue that needs to be collected to ensure that councils are able to maintain a three waters debt to three waters revenue ratio of less than 250% over the modelling period. **This is the revenue number that is divided by WICS' estimated future household connections to reach the household charges at B above.**
- This revenue number typically results in operating surpluses being generated which are applied toward debt reduction.

This process is explained in Figure 5 below.

Figure 5 Household cost calculation



**C**

WICS have undertaken the same modelling to estimate the future household charges for rate payers of a council area if water reform entities were formed. The result reported in each council's dashboard (C) matches the projected future household charges for all councils in **Entity D** (of which the Otago and Southland councils are a part) in 2051.

We have been provided with the economic models for the proposed water services entities. The approach used to project future household charges for water services entities is closely aligned to that used to project future household charges for individual councils. Key differences:

- Entities have been modelled with no limit on the debt to revenue ratios (or no discernible limit). This means that WICS reports show the projected debt level for **Entity D** is allowed to reach 640% of revenue by 2051. This accounts for a substantial part of the difference between the projected three waters rate for each council and **Entity D** in 2051.
- Entities have been assumed to be able to generate efficiencies amounting to 53.3% for operating costs and 50% for capital expenditure within 20 years from today. By way of contrast, within the Otago and Southland councils only Dunedin City Council has been allowed any operating or capital efficiencies and these have been modelled at a modest 2.2%. This accounts for most of the remaining difference between the projected three waters rates.
- Finally, the entity will benefit from the scale of aggregation. That is, the total revenue needs will be spread over a larger population base. The extent to which this scale benefit applies to a particular council will vary depending on population and land area.
- The total investment requirements for **Entity D**, including depreciation and renewals investment, have been derived by adding the constituent parts of each council.

The various elements of the above approach are outlined in more detail in Section 2.



1.4 Comparison of key data from WICS

The following section compares data from the WICS model to that within councils RFI.

Southland District Council

The comparison highlights that WICS has modelled level of service and growth investment that is over three times larger than the investment requirements identified by Southland in its completed RFI. For Southland, this is the most significant driver of the household charge calculations produced by WICS. The assumption of staying below a three waters debt/revenue ratio of 250% also drives a higher three waters household charge than if debt/revenue was viewed at the total Council level.

Household Cost per Annum

Item	WICS - Council		WICS - Entity		Comments on assumptions
	2031	2051	2031	2051	
Household Charge (uninflated)	\$8,032	\$11,608	\$1,543	\$1,640	<ul style="list-style-type: none"> Water Services Entity option shows a significantly lower charge per household.

Note that comparison of Council and Entity household charge projections in 2031 may be unreliable as WICS' modelling for the entity "backloads" capital investment whereas it does not apply the same approach to individual councils.



Investment

Item	WICS - Council		RFI (2031)	Comments on assumptions
	2031	2051		
Total investment requirement	\$350,073,873	\$1,244,286,818	\$105,769,000 (constrained) (G1.3+G1.6+G1.9) ¹	<ul style="list-style-type: none"> WICS model projects a significantly higher Investment need.
Levels of Service Enhancement & Growth	\$269,535,000	\$806,605,000	\$72,993,000 (G1.3+G1.6)	<ul style="list-style-type: none"> WICS model projects significantly higher LoS Enhancements and Growth needs.
Renewals	\$80,538,873	\$435,681,818	\$32,776,000 (G1.9)	<ul style="list-style-type: none"> WICS model projects significantly higher Renewals requirement is needed.
Item	WICS - Council		RFI	Comments on assumptions
Asset Value	\$329,705,246		\$270,076,000 (Low) \$357,583,000 (High) (J1)	<ul style="list-style-type: none"> Higher asset values becomes more relevant over time.
Depreciation	\$4,496,025 (Assumption C75)		\$2,372,000 (E1.25+E2.24+E2b.24)	<ul style="list-style-type: none"> Depreciation is nearly double in the WICS model and continues to rise over the life of the model. Depreciation becomes more material as investment in assets increase. Implied depreciation rate WICS = 1.35% increasing to 1.75% over time. RFI = 0.88%

¹ Reference to data in Council RFI spreadsheet



Revenue

Item	WICS - Council			RFI	Comments on assumptions
	2021 ²	2031	2051	2031	
Total debt	\$37,000,000	\$170,513,219	\$481,307,930	\$91,119,000 (F3.14)	<ul style="list-style-type: none"> WICS projects debt to be significantly lower than in the RFI.
Total Revenue	\$18,000,000	\$69,436,026	\$192,222,412	\$22,500,000 (F10.62)	<ul style="list-style-type: none"> WICS projects revenue to be slightly lower than in the RFI.
Debt to Revenue	211%	246%	250%	405%	<ul style="list-style-type: none"> Charges increase to bring ratio back within 250% under the WICS model so comparison not relevant.
Operating Surplus	N/A	\$27,083,340	\$45,444,810	N/A	<ul style="list-style-type: none"> Only exists under WICS model.
Item	WICS - Council		RFI		Comments on assumptions
Revenue from household	70%		68% (F10.4+F10.19+F10.54) / (F10.62-F10.61+F10.70)		<ul style="list-style-type: none"> Southland collects a similar percentage from household charges compared to the WICS model assumption.
Connected household properties	4,278		Water = 5,900 (A1.1+A1.4) Wastewater = 6,640 (A3.1) Stormwater = 9,093 (A3b.1)		<ul style="list-style-type: none"> Number of connected properties is lower in the WICS model, the charges are likely to be lower than reported by WICS. This will have a moderate impact on projected household charges.
Development Contribution	WICS assumes that development contributions, when combined with revenue from commercial and industrial users account for less than 30% of total three waters revenue		No development contributions have been forecast in Southland's RFI		<ul style="list-style-type: none"> No impact

² From DIA dashboard



1.5 Sensitivity testing key WICS assumptions

The impact of the key assumptions used by WICS outlined in section 1.4 has been outlined in the tables below:

- Table 1 shows the impacts on projected household charges in 2051 once the following adjustments have been applied:
 - Adjusted to the number of household connections to adopt the average of water and wastewater billed properties from Council's completed RFI.
 - Adjusted to the percentage of revenue from households to match the percentage disclosed in Council's RFI.
 - Sensitivity testing around the debt to revenue ratio assumption, to show the impact of applying a 500% ratio instead.
 - Sensitivity testing around the projected investment requirement, showing the impact of halving the amount of investment projected by WICS.
- Table 2 shows the impacts of adjusting the level of required investment and assumed efficiencies for Entity D in 2051.

Table 1 Sensitivity testing of projected household charges in 2051 for Council

Investment	Three waters debt to revenue	
	250%	500%
100%	\$7,694	\$6,078
50%	\$3,426	\$3,159

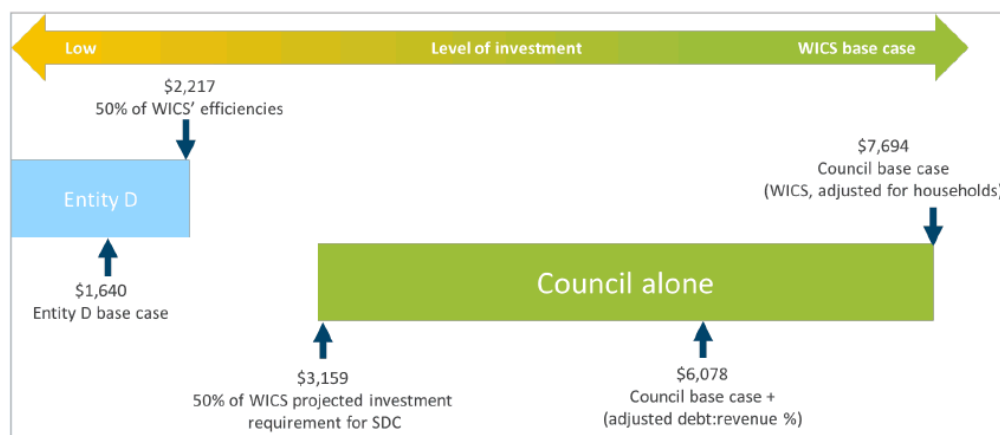
Table 2 Sensitivity testing of projected household charges in 2051 for Entity D

Investment	Efficiencies	
	100%	50%
100%	\$1,640	\$2,217
50%	\$927	\$1,190

The results of the sensitivity testing are represented visually in Figure 6 below.



Figure 6 Summary of sensitivity analysis



In summary, the sensitivity testing showed that:

- When the underlying assumptions regarding percentage of revenue from households and number of connected properties are adjusted, the forecast charges for Southland are likely to be approximately 1/3 lower than included in the WICS reports for Council.
- The scale of the difference between the entity and council scenarios is likely somewhat less than WICS analysis indicates.
- It is unlikely that household charges for ratepayers in SDC could be lower from continued council service delivery than under Entity D.



2 Differences in approach – Morrison Low versus WICS

Since the production of our Impacts Assessment Report in June 2021 the Government has released the information from the Water Industry Commission of Scotland's ("WICS") review and analysis of water reform opportunities in New Zealand. At the time of writing, DIA has proposed four Water Services Entities and has released the WICS analysis that supports that proposition. This includes estimated household charges in 2051 for each Council and in comparison, under the proposed Water Services Entity which would include Otago and Southland (Water Services Entity D).

The WICS analysis has been completed using a different approach to that used by Morrison Low. We note that despite the differences, our analysis and the WICS analysis are directionally consistent. That is, in both cases, it is anticipated that there are significant future three waters investment requirements to meet new standards and that this will lead to substantial increases in the cost of services. In our high level analysis of a Ngāi Tahu Takiwā entity (effectively Entity D), we observed that all councils in Otago and Southland would be financially better off – this is consistent with WICS modelling

There is however a large variation between our estimates and that of WICS in the future estimated household costs for each Council. There is also a significant variation in terms of which councils are more or less severely impacted by the projections, with Queenstown Lakes and Southland being the least affected in our modelling but the second and third most effected under WICS' modelling.

Table 3 Comparison of Morrison Low and WICS forecast household costs (uninflated)

Council	2031 WICS	ML 2031
Central Otago District Council	\$6,466	\$2,200
Clutha District Council	\$8,976	\$2,549
Dunedin City Council	\$3,843	\$2,217
Gore District Council	\$4,267	\$2,022
Invercargill City Council	\$3,705	\$2,144
Queenstown Lakes District Council	\$8,422	\$1,952
Southland District Council	\$8,032	\$1,953
Waitaki District Council	\$7,958	\$2,881
Water Services Entity	\$1,543 ³	\$2,001 (Otago Southland) \$1,700 – 1,900

³ While we have used the 2031 rates from WICS analysis to compare to the modelling results of our own analysis, we note that comparison of the WICS numbers between the entity and councils in 2031 is of limited value because WICS heavily backloads investment in its entity model which has a significant impact on projected household costs in earlier years.



The table below summarises key differences in approach between our analysis and that completed by WICS and the implications of those differences. We have discussed the impact of those and how they drive estimated future household costs in more detail in the next section.

Table 4 Differences in approach

	Morrison Low approach	WICS approach	Difference/Impact
Modelling period	We have adopted a 10 year modelling period that aligns with each council's draft long term plan.	WICS have adopted a thirty year modelling period which reports household costs in 2051. The thirty year investment requirement is assumed to fall evenly over the 30 year modelling period.	Most councils have signalled a large amount of investment planned beyond the ten year planning period which is likely to increase costs further over time. Estimating 30 year investment requirements is challenging.
Efficiencies	We have assumed annual efficiencies for a three waters services entity of 1.25%, reaching a total of 12.9% savings by 2031. These savings occur after the application of additional organisational costs. We would not anticipate these savings to continue for 30 years.	WICS appear to have assumed that under Entity D, savings of 50% or more could be within 20 years from today. The efficiencies are progressively introduced from 2025.	Our annual savings would equate to 45% if they were able to be achieved consistently for 30 years.
Capital investment	We have adopted Council's planned capital investment and adjusted it to include additional enhancement costs relating to WWTP and WTP upgrades that are known to be required, and to increase the cost of planned upgrades to reflect low asset unit rates.	WICS have capital investment scenarios based on population, land area and population density. It results in a significant uplift in expenditure at a national and in most cases at an individual council level.	Significant as capital expenditure drives operating costs, interest costs, and depreciation in the WICS model.
Operating costs	Our modelling relies on councils estimates for operating costs, with adjustments to standardise depreciation, and include additional compliance costs to meet drinking water standards and operate new treatment plants.	WICS have estimated future operating costs based on connection growth, additional depreciation, financing on growth, enhancement capital expenditure, and an additional operating cost equating to 3% of growth.	It is likely that WICS have estimated operating costs to be higher than we have allowed for within our modelling. In most cases operating costs have little bearing on WICS projections of future household charges however.



	Morrison Low approach	WICS approach	Difference/Impact
Debt	Our modelling includes sufficient debt to meet the forecast investment needs. Debt for an individual council is considered at total council debt level.	WICS modelling includes sufficient debt to meet the forecast investment needs. Debt to revenue is considered at three waters level and the debt/revenue ratio for each council is limited to 250%.	WICS approach increases projected household costs as the total revenue requirement is driven by the need to keep a three waters debt/revenue ratio below 250%.
Inflation	Our modelling excludes inflation to enable better comparison with WICS data.	WICS average household charges are expressed in real terms (i.e. net of inflation).	No impact.
Growth	We have assumed that growth in the number of connections and investment to support that growth is consistent with council projection.	WICS has assumed that connection growth, and the investment required to support that growth will be consistent across the full 30 year modelling period. WICS have relied on each councils own forecasts for growth investment and population growth.	No impact over 10 year time frame. In some cases it may not be appropriate to assume high rates of growth are sustained for 30 years.
Connections	We project household charges and determine these using actual number of billed households for each of the three waters. Charges are calculated for each "water" separately and combined to reach a three waters charge.	WICS charges are "household charges" and assume household connections based on population projections and a household density of 2.7.	Differences in approaches are likely to have resulted in our charges appearing lower than WICS, particularly where household density is lower than 2.7.
Revenue from households	We have assumed that the percentage of revenue derived from households will be consistent throughout the modelling period and is aligned with the actual percentage of revenue derived from household for each council individually.	WICS have assumed 70% of total revenue is derived from households.	Councils with lower reliance on households for three waters revenue will have higher projected household charges under the WICS analysis than they will under ours.



	Morrison Low approach	WICS approach	Difference/Impact
Development Contributions	We have relied on councils projections for development contributions receipts. Development contributions are ringfenced to be used to fund capital expenditure or debt repayment only.	WICS model treats development contributions the same as other operating revenue. Development contributions are not appropriately addressed if they exceed (when combined with other non-household revenue) 30% of total three waters revenue.	Significant for high growth councils.
Asset values	Morrison Low applied the mid-point asset values across all three waters assets.	WICS have adopted the high-end asset values for short lived assets (assets with less than 30 years of life) and the mid-point asset values for long lived assets.	Minor impact as approaches are similar and short lived assets are a small proportion of total asset value.
Depreciation	We have used the average depreciation rate for assets in Otago-Southland in our modelling. We have assumed that the useful lives of new assets will be proportional to existing assets.	WICS have assumed 24 years asset life for short lived assets, and 98 years for long lived assets, with a 10%/90% split in favour of long life assets. WICS assumed that new assets will comprise 60% short lived assets and 40% long lived assets. This increases the effective depreciation rate over time.	Significant, review of models indicates that depreciation has increased for all councils in the baseline as a result of WICS assumptions, then continues through the sustained capital investment forecast.



3 Water Industry Commission for Scotland Commentary

3.1 Investment Projections

Investment is the single biggest driver of cost in the WICS model. WICS estimates potential investment requirement over 30 years for each council. This is considered for:

- (a) Renewals (Replacement and Refurbishment)
- (b) Levels of Service (Enhancement)
- (c) Growth investment

These three values are combined to determine a total investment programme for each council.

3.1.1 Renewals

In their various reports, WICS noted that based on a review of completed RFI's and comparison to their international benchmarks:

- Asset values reported by New Zealand Councils were typically low.
- Useful lives appeared to be optimistic.
- The split of asset value between short lived (less than 30 years) and long lived (estimated lives of around 100 years) was more heavily weighted toward long lived assets.
- Using the low range for asset values and the high range for asset lives (i.e. the two extremes) disclosed in RFI would increase the risk that there is insufficient resources available for asset replacement.

Based on their observations WICS therefore recalculated the depreciation for each council's asset base, assuming:

- 90% of existing assets are long life assets with an estimated life of 100 years.
- 10% of existing assets are short life assets with an estimated useful life of 30 years.
- Long life assets were assumed to have a valuation at the mid-point of the low and high end valuations disclosed in RFIs.
- Short life assets were assumed to have a valuation at the upper range of the valuations disclosed in RFIs.
- New investment is assumed to comprise 60% short life assets and 40% long life assets to enable the long/short life split of assets to eventually reach the international benchmark of 30% short life and 70% long life assets.

WICS has then modelled investment in renewals at 100% of depreciation throughout the modelling period. There has been no adjustment to planned renewals investment to reflect that some investment in level of service enhancement or growth is likely to also have a renewals component.

The modelled renewals investment is likely to differ substantially to renewals programmes that have been calculated by each council.



WICS have modelled an effective starting average depreciation rate of 1.35% of the revised asset value. This depreciation rate increases over the modelling period to eventually reach 1.75%. These depreciation rates translate to an average useful life for three waters assets of 81 and 59 years, respectively.

Comments on the underlying assumptions

We note that WICS calculation of renewals expenditure and depreciation does not consider:

- The relative age profile of each councils network, and each councils stage in the asset lifecycle.
- The amount of investment in level of service enhancing infrastructure or growth infrastructure which may also have a renewals component.
- The actual split of long life and short life assets within each council, and the specific circumstances that give rise to that split (e.g. water networks with large distribution zones and therefore a higher proportion of reticulation assets which are typically long life, or the inclusion of stormwater assets which typically have longer lives and do not form part of the Scottish water asset base).

We note that the depreciation rate of 1.35% is broadly within the high end of the range observed in New Zealand already. However, the longer term depreciation rate of 1.75% is much higher than most councils in New Zealand (although this is intended by WICS).

While the rate of depreciation may be consistent with the New Zealand average, the valuation of assets is not. In our experience, councils typically value their assets at the low end of the valuation range provided in their completed RFIs. This means WICS has typically increased the total depreciation charge above those that are likely to be included in long term plans.

We are aware of a number of recent examples where councils that have had recent asset valuations have experienced substantial uplifts in assets value. This may support WICS assumptions around asset valuations.

Potential impact of assumption

Overstatement of the renewals requirement will result in an overstatement of debt and revenue projections for the entity.

This assumption is likely to affect the entity and council projections equally, so will likely have limited bearing on the comparative outcomes of household charges. However, it will have a significant impact on the projected household charges for councils in 2051 if reform does not occur.

3.1.2 Levels of Service and Growth Investment

The various reports produced by WICS outline three different approaches used to determine the future required investment in level of service enhancement (and in some cases growth expenditure):

- Based on relationships between historical enhancement and growth investment in the UK (same approach as Phase 1 but updated using council RFI information)
- Based on relationships between historical enhancement and growth in Scotland only (i.e. using the same approach as in Phase 1 but with Scottish data only); and
- Based on the observed gap in asset values per connected system between New Zealand and the UK – this approach does not take into account growth.



While the approaches differ in how they arrive at their estimates they deliver broadly consistent results in terms of the magnitude of investment that is likely to be required over the next 30+ years. It indicates that in order to meet quality and growth outcomes, spending will need to more than double from current levels over the next 30 years.

WICS note these figures could ultimately be even higher, as they do not take account of investment uncertainty associated with the need to provide for seismic resilience, climate change, or responding to changing societal standards around environmental impacts (including iwi/Māori expectations).

It is unclear which of these approaches was used to identify the potential amount of level of service enhancement investment needed. However, we understand that the outcome under all three approaches is broadly similar.

WICS also applied two further adjustments:

- It appears that planned investment in growth infrastructure was effectively removed from the results in favour of using council's own projections for investment in growth infrastructure. Where councils only reported forecast investment for a 10 year period, this was assumed to be representative of the next 20 years as well.
- Applied a cap of NZ\$70,000 per head for combined investment in level of service enhancement and growth infrastructure across any council area, this limits the modelled potential exposure of most rural councils.

WICS does disclose some of the formulas that it has used to identify potential investment requirements, although without knowing the source of the variables used within the formulas we have been unable to replicate the results. We note however that the formulas (at least at a national level) do include length of waterways and coastline, so may make some attempt at incorporating relevant environmental factors.

However, at an individual council level, the investment numbers produced by WICS are based on population, land area, and density alone and have no relationship to each council's:

- Type, quality, or number of water sources
- Receiving environment for wastewater discharges
- Current treatment approach
- Current levels of service
- Asset age
- Asset performance
- Asset condition

Comments on the underlying assumptions

Investment is the single biggest driver of cost in the WICS model. It is what drives the future borrowing requirement, which in turn determines the amount of revenue that needs to be collected. That means that if the future investment requirements in the WICS modelling are under or overstated the future household costs are likely to be similarly impacted.

Despite this it is worth recognizing that predicting future investment requirements is notoriously difficult. This is particularly true over long time frames, such as the 30 year period that has been modelled by WICS.



While predicting investment over a 10 year period is more certain, even this is challenging, as demonstrated by the long term plans of almost every council in New Zealand. Long term plans often have significant uplifts in their ten year capital works programs despite being only 3-year cycles.

We have not attempted to make an alternative assessment of 30 year investment requirements, and therefore have no view on whether the projected investment by WICS is appropriate. However, as it appears that a different approach may have been used to determine investment at a national scale than that used at a council level, even if the national, or regional investment projections are correct, the distribution of where that investment falls in relation to each council may not be correct.

Potential impact of assumption

WICS have used the derived future investment numbers in the stand alone financial analysis provided to councils as well as in the analysis completed for each water services entity. The higher numbers have a flow on effect to a number of assumptions, most importantly, the future revenue required by councils. This is then reflected in the calculated household charge.

We also note that for the purposes of their modelling WICS have assumed that this investment is evenly spread across the modelling period, however it is likely that this will be weighted further toward future years in practice. This results in a sharp increase in projected future household charges.

In the event that the future investment requirements are understated or overstated, there is likely to be a consistent impact on both the council and entity household charge projections. While this assumption may change the scale of the difference in projections it is unlikely to change the overall outcome of their analysis.

3.2 Revenue

Projected revenue is ultimately the main input into the WICS model that is used to determine household charges. The way in which future revenue is projected is therefore critical.

3.2.1 Three water debt to revenue ratio

The total three waters revenue that is needed to be collected by councils in the WICS model has been determined by reference to each council's total borrowing.

Revenue projections have been calculated by identifying the amount of revenue needed to ensure that each council maintains a three waters debt to revenue ratio below 250% over the entire modelling period. Revenue increases are front-loaded in the WICS model, with revenue increases typically stabilizing to match inflation over time (or at least reducing).

The WICS modelling results in forecast future revenue requirements which typically result in the council generating a significant operating surplus for its three waters activity. This surplus is applied toward debt management/repayment.

Water services entities appear to not have been subject to this restriction with Entity D's debt to revenue ratio reaching 640% by 2051. We understand that the Government has received advice to suggest that a debt to revenue ratio of this magnitude would not adversely impact on water services entities' credit ratings.



Comments on the underlying assumptions

We note that councils are not typically financed on an activity basis. That is, councils are not required to maintain a three waters debt to three waters revenue ratio of 250%, and in fact a number of councils already exceed this ratio when looking only at three waters debt to revenue.

Three waters typically makes up between 20 – 30% of a council's total revenue, with most other activities typically requiring only low levels of debt. While three waters charges may increase at a much higher rate than other areas of council's business, we would still anticipate that a three waters debt to revenue ratio of around 500% would be within most council's future borrowing capability.

Potential impact of assumption

The revenue numbers directly translate into household charges for councils and the water services entities.

As councils are likely to be able to borrow more than 250% of their three waters revenue, the projected household charges are likely overstated.

Because no such cap has been applied to the water services entities, and we understand that there is official advice to support water services entities maintaining large debt to revenue ratios, this assumption has limited bearing on the projected household charges for the water services entity itself.

When viewed together, the application of this assumption by WICS is likely to overstate the size of the difference in charges between council and the water services entity.

3.2.2 Revenue from Households

WICS has used the split of revenue between households and non-households of 70% as observed in the UK. This has been applied to the total revenue figure above.

The 70% figure represents the total amount of three waters revenue derived from household water charges, and effectively does not include any revenue from development contributions, grants and subsidies, or commercial and industrial water use (or indeed irrigation/stock water schemes).

Comments on the underlying assumptions

In our view the assumption that 70% of revenue comes from household water charges appears to be fair at a national or water services entity level. However, this assumption is less likely to be applicable at an individual council level, noting that:

- Councils that have high levels of urban growth may receive a substantial portion of water revenue from development contributions, and in some cases this may account for the entire remaining 30% (or more) on its own.
- Highly rural councils may receive a large proportion of their three waters revenue from irrigation or stock water schemes, meaning much less than 70% of total three waters revenue is derived from households.
- Some territorial authorities receive large amounts of three waters revenue from large water users. This is particularly true in rural and provincial councils, which often have high water users in the agricultural and horticultural industries.



Potential impact of assumption

This assumption may impact on the size of the difference between the projected household charges under the council and entity scenarios because it is likely to be more accurate at an entity level than it may be for individual councils.

Councils which receive a lower proportion of their three waters revenue from households than is assumed in the WICS analysis will have higher projected household charges under the WICS analysis than they may otherwise have.

WICS analysis is also presented at a three waters level, which means it is difficult to see the impact for customers which may only receive one or two of the services provided. This is likely to be particularly relevant for councils with large rural areas.

3.2.3 Household connections

WICS have determined the number of household connections in their modelling by:

- Averaging the connected water and wastewater populations from each council's RFI
- Dividing the number by 2.7 (which is the average household density in New Zealand).

This value is used as the denominator in WICS' projections of average household charges. The higher this number is, the lower the projected household charge is.

WICS does not appear to have used any data regarding stormwater connections/charges within its analysis.

Comments on the underlying assumptions

Household density varies significantly between territorial authorities within New Zealand. This is particularly prevalent in the comparison of rural and urban councils. According to Statistics New Zealand, in 2018 the council with the highest occupancy rate has an average of 3.0 residents per household, compared to the least dense council having an occupancy rate of 2.1.

We understand that there are now councils that have significantly lower occupancy rates than that still (with some reporting occupancy rates of less than 2 residents per household).

Potential impact of assumption

This assumption may result in a difference between the projected council and entity values (i.e. it will affect the entity and council differently) because the household density number varies significantly between council areas but is likely to be more accurate at an entity level.

For councils with low household density, it is likely that the application of this assumption will have resulted in the WICS analysis overstating the potential household charges in 2051 for individual councils. The projected household charges for the water services entity are less likely to be affected by the application of this assumption.

3.3 Capital and Operating Efficiencies

WICS looks separately at capital and operating efficiency expenditure. In both cases, WICS undertook econometric modelling (using the reworked Ofwat 2004 and 2009 models) of the potential for operating efficiency from each council using tools and techniques applied and fitted to UK water entities and tested this against New Zealand.



3.3.1 Efficiencies

WICS have applied efficiencies adjustments in some cases for individual councils. These efficiencies have been based on council size. The observed experience from United Kingdom demonstrates that only entities of a scale of more than 60,000 connected citizens could be expected to achieve any reductions in operating costs, even if they were subjected to robust governance and regulatory frameworks.

In the models provided, the scale efficiencies increase on a diminishing (logarithmic) basis above the minimum size threshold. This means there is no inclusion for efficiency improvement for councils with less than 60,000 population served. For councils above this threshold, efficiency gains are realisable (albeit at a diminishing rate) up to a maximum of 800,000 population served, after which no further returns to scale have been included in WICS modelling.

In determining the scale of efficiencies modelled for the Water Services Entities, WICS assesses the New Zealand Three Waters sector to be in a broadly similar position as Scotland in 2002, in terms of relative operating efficiency and levels of service. In just under two decades, Scottish Water has lowered its unit costs by 45% and closed the levels of service gap on the best-performing water companies in the United Kingdom. This has been used as evidence to support the efficiencies modelled by WICS.

WICS modelling includes a capital efficiency challenge of 50% and an operating efficiency challenge of 53.3% for Entity D, with an assumption that this efficiency gap is able to be closed within 20 years from today.

Comments on the underlying assumptions

We note that Entity D is projected to have around 900,000 customers on formation. This is comparable in size (but much less densely populated) to Bristol Water and South Staffordshire Water, who were cited as achieving efficiencies of 25% and 20% respectively in the WICS reports.

Potential impact of assumption

If modelled efficiencies from service delivery reform are overestimated, or underestimated, then this will have a direct impact on the projected household charges for the water services entities. That is, overestimation of the potential operating efficiencies will result in WICS' projections of household charges for water services entities being lower than they may otherwise be if those efficiency targets are unable to be met.

3.4 Sensitivity

WICS undertook detailed sensitivity analysis (Monte Carlo analysis) of their projected household charges to demonstrate whether there are any instances where household charges would be lower under continued council led service delivery versus the reform, scenario. Across the country, this analysis shows only a very limited number of cases where household charges have any potential to be lower without reform than with it. In these cases, WICS typically notes that the levels of service received by customers without reform would be significantly lower than they would be under the reform scenario.

Importantly, while this sensitivity analysis does consider different levels of investment requirements, it does not consider the impact of the debt to revenue assumption, or assumptions regarding the percentage of revenue from households, or the number of connections. We have not attempted to recreate the sensitivity analysis completed by WICS but would anticipate that correction of these assumptions prior to undertaking the sensitivity analysis would result in more instances where future household charges crossover under the reform and no reform scenarios.

Road Realignment, Road Stopping and Land Status Changes Curio Bay Recreation Reserve

Record no: R/21/7/44880

Author: Kevin McNaught, Manager property services

Approved by: Nick Hamlin, Group manager programme delivery

☒ Decision

☐ Recommendation

☐ Information

Purpose

- 1 To confirm road realignment, road stopping and land status change as a result of the developments at the Curio Bay recreation reserve.

Executive summary

- 2 The Curio Bay recreation reserve developments, undertaken in conjunction with the South Catlin's Charitable Trust and the Department of Conservation were approved by Council in May 2016. The project included construction of a new carpark, waste water treatment plant new camp amenities, new public toilets, new information centre/heritage centre building and the Mair Road realignment.
- 3 As a consequence, to these physical works, were proposed road stoppings and land status changes to align these with the appropriate land use.
- 4 While not part of the development, what is also proposed is the stopping of the legal road around the coast on the edge of the reserve to allow the inclusion of this land into the reserve, and the subsequent new leases of the reserve and camping ground.
- 5 Council approval of these changes is required before the relevant statutory processes can be completed.

Recommendation

That the Council:

- a) **receives the report titled “Road Realignment, Road Stopping and Land Status Changes Curio Bay Recreation Reserve” dated 8 September 2021.**
- b) determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) approves the following actions being undertaken as a consequence of the developments at the Curio Bay recreation reserve:
 - (i) Declaring Section 1 SO 532228 as road
 - (ii) Stopping the road being Sections 2 and 5 SO 532228 and when stopped being added to the adjoining Curio Bay recreation reserve
 - (iii) Taking Section 6 SO 532228 for severance and adding to the adjoining Curio Bay recreation reserve
 - (iv) Stopping the road being Section 3 SO 532228 and section 2 SO 549069 and subsequently changing its status from local purpose (esplanade reserve) to recreation reserve and being added to the adjoining Curio Bay recreation reserve
 - (v) Stopping the road being Section 1 SO 549069 and when stopped being added to the adjoining Curio Bay recreation reserve
 - (vi) Changing the status of Section 7 SO 532228 from recreation reserve to local purpose reserve (wastewater treatment site)

Background

- 6 In May 2016 Council approved the Curio Bay wastewater upgrade in conjunction with the new carpark and public toilets being constructed by DOC, as well as the new camp amenities and the new Curioscape building being undertaken by the South Catlin's Charitable Trust.
- 7 All the constructions have been completed so to allow new leases to be put in place with both DOC and the Trust, the relevant land status changes are required including road legalisation and stoppings.
- 8 The completed works are shown on the aerial photograph as appendix 1 with the undeveloped site shown on the aerial photograph as appendix 2.
- 9 Council's approval to all these land status changes are required before they are able to be actioned by the issue of the relevant gazette notices, new titles and leases.

Issues

- 10 There are numerous issues to be addressed, however in simple terms there is road legalisations and stoppings to be undertaken around the carpark with the intent of all this land excluding the new Mair Road layout to form part of the reserve.
- 11 With Lot 17 DP 526128 (which is north of Section 1 SO Plan 549069) also owned by Council as recreation reserve, this Section 1 therefore intersects the two reserve properties. The proposal is to stop this unformed legal road and include it into the reserve as well.
- 12 While this proposal is removing unformed legal access to the coast it is being replaced with the statutory freedom of entry and access right to the reserve, albeit this can come with limitations to this access as set out in the Reserves Act 1977. However, adding this land to the reserve for better and co-ordinated management of the area including upgraded public access to the beach and headland is seen to be a more desirable outcome than the status quo of a legal but unformed access to the beach.
- 13 For clarity it should be noted that Section 4 SO 532228 is not being actioned as it superseded by SO 549069 which is the correct definition required of the land to be dealt with, particularly the portion adjoining the coast.
- 14 Additional to the above, is the identified issue of the current legal but unformed road around the coast and headland which includes part of the camping ground and the headland carpark. This is shown as Section 3 SO 532228 and Section 2 SO 549069. As this land status is road it cannot be included in any leases, so the proposal is to get the land status changed to recreation reserve and be included in any subsequent leases. This is a multi-staged approach for the stopped road as it is automatically becoming local purpose (esplanade reserve), then subsequent action is required to change the status to recreation reserve.

Factors to consider

Legal and statutory requirements

- 15 The actions required to be undertaken will be following the processes as set out under the Public Works Act 1981, Reserves Act 1977 and possibly the Local Government Act 1974.
- 16 Until such time as the proposed actions are authorised under the relevant legislation nothing can be taken for granted, however other alternatives exist within the legislation listed to achieve the desired outcome for the road stopping proposals if the preferred process under the Public Works act 1981 is not approved.
- 17 As the proposed road stoppings require Council approval, the whole proposal is being put up for approval to indicate how all the parts interconnect.

Community views

- 18 With the preferred process being the use of the Public Works Act 1981, specific public consultation is not required. The development however has been undertaken in conjunction with both DOC and the South Catlins Charitable Trust and this process is just completing the required statutory processes.
- 19 In regards the proposed road stopping around the coast and headland, DOC did consent to this road being stopped and added to the adjoining reserve in 2007. Their letter of communication

received confirmed that they consulted local Iwi and the Southland Conservation Board who both supported the proposal.

Costs and funding

- 20 At this stage there are limited costs to complete this project as they are basically the gazettal and registration. These can be funded from existing budgets.

Policy implications

- 21 None directly associated with these actions, however staff discussions are underway in regards the wastewater treatment site and plant becoming part of that district activity given that some community connections have been agreed to.

Analysis

Options considered

- 22 The options are to approve the legalisation actions or not

Analysis of Options

Option 1 – Approve Legalisation actions.

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">• completes the final stage of the developments• allows the physical alignment of Mair Road to become road• will allow new leases for the reserve to be put in place.• will allow the whole reserve to be better classified and defined as one continuous property.	<ul style="list-style-type: none">• will not allow the development to be completed and leases issued• will created issues with DOC as their contribution was subject to leases being issued for their assets.

Option 2 – Do not approve Legalisation actions

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">• none identified.	<ul style="list-style-type: none">• will create significant issues in relation to land status versus actual land use• will create issues in regards to extent and conditions of the new leases to be put in place with DOC and the South Catlins Charitable Trust.

Assessment of significance

- 23 Not considered significant.

Recommended option

- 24 Options 1 – approve the Legalisation actions.

Next steps

- 25 Have all actions completed as proposed.

Attachments

- A Curio Bay pre development aerial [↓](#)
- B Curio Bay post development aerial [↓](#)
- C Curio Bay - SO Plan 532228 [↓](#)
- D Curio Bay - SO Plan 549069 [↓](#)

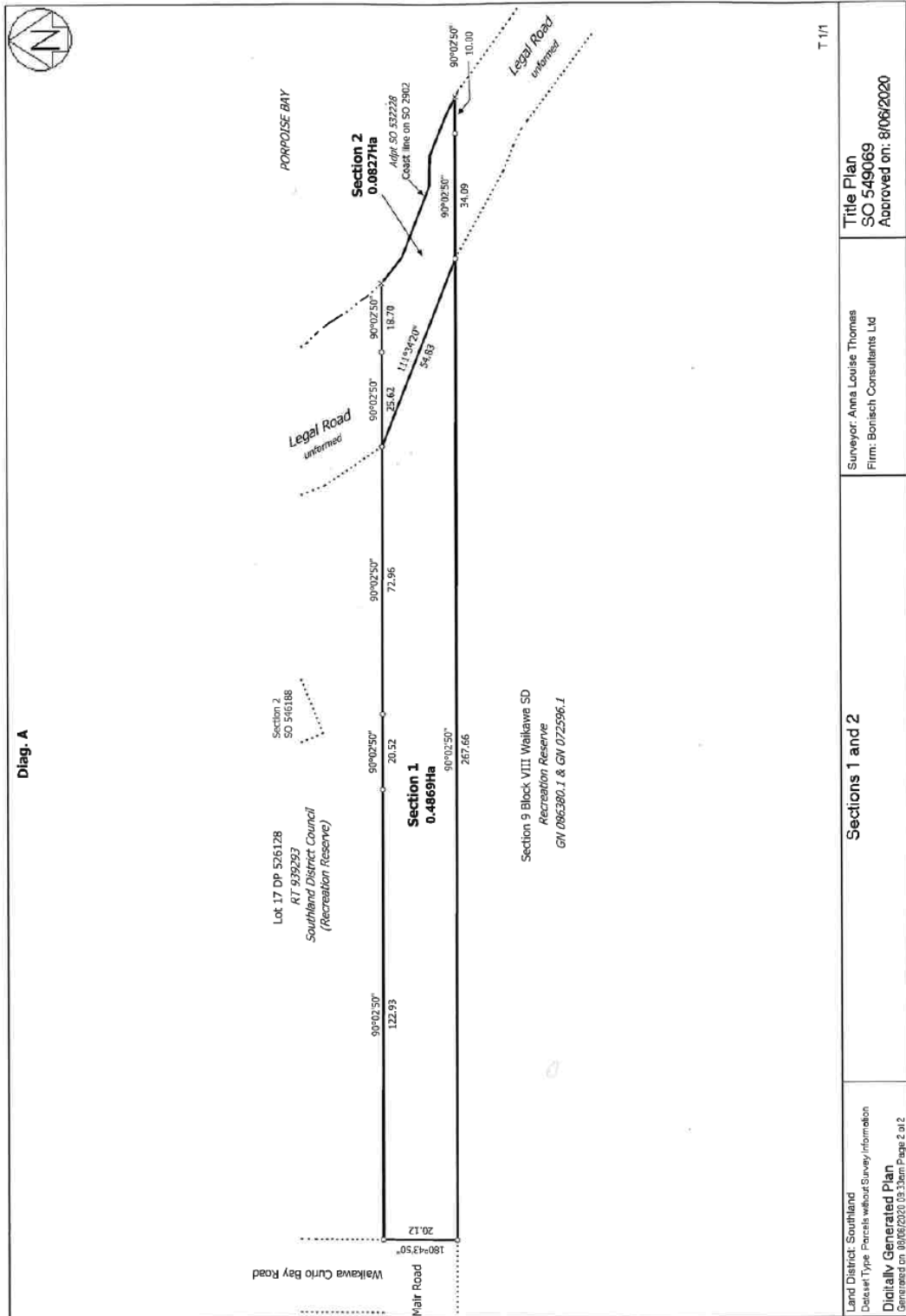


Appendix 2



Appendix 1





Hedgehope Golf Club building and transfer of ownership of the building and unbudgeted expenditure grant from Winton Wallacetown ward reserve towards painting of Council owned building

Record no: R/21/8/49236

Author: Kevin McNaught, Manager property services

Approved by: Nick Hamlin, Group manager programme delivery

☐ Decision

☐ Recommendation

☐ Information

Purpose

- 1 To consider a request from the Oreti Community Board to fund an unbudgeted expenditure grant towards the outside painting of Council owned golf clubrooms at the Hedgehope Recreation Reserve, and to approve the transfer of ownership of this Council building to the Hedgehope Golf Club.

Executive summary

- 2 The Hedgehope Golf Club leases the Hedgehope Recreation Reserve as part of the golf club. The current lease is for 33 years from 1 March 1998 ending in 2031 with no right of renewal.
- 3 Conditions of the lease are reasonably standard, however specifically all trees belong to Council and the tractor shed, pump shed, water tanks and irrigation pump belong to the golf club, with the club being responsible for all ground maintenance.
- 4 The golf clubroom's building belongs to Council, with the club responsible for interior maintenance and Council responsible for exterior maintenance. Building insurance is paid for by Council but recovered through the rental paid.
- 5 External painting of the clubrooms is due, however not enough funds are held by Council through the Hedgehope Reserve Group (formerly referred to as the domain board) to fund this obligation.
- 6 This unbudgeted expenditure request towards this painting was approved by the Oreti Community Board however the Board has requested from Council that this be funded from the Winton Wallacetown ward reserve, as this requires the approval of Council.
- 7 It is also recommended that Council transfer this building to the golf club for \$1.00 so that the golf club become responsible for all aspects of the building's maintenance going forward to avoid a repeat of this situation.
- 8 The funding and the building transfer will not be actioned if approved, until a new a new lease to the golf club is agreed.

Recommendation

That the Council:

- a) **receives the report titled “Hedgehope Golf Club building and transfer of ownership of the building and unbudgeted expenditure grant from Winton Wallacetown ward reserve towards painting of Council owned building” dated 8 September 2021.**
- b) determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) approves the funding of the \$3000.00 plus GST unbudgeted expenditure grant towards the painting of the Hedgehope golf clubrooms from the Winton Wallacetown ward reserve.
- e) approves the transfer of the Hedgehope golf clubrooms building to the Hedgehope Golf Club for \$1.00.
- f) determines that the grant not be paid until such time as the building transfer and new property lease to the Hedgehope Golf Club are completed.

Background

- 9 The Hedgehope Golf Club leases the Hedgehope Recreation Reserve as part of the golf club. The current lease is for 33 years from 1 March 1998 ending in 2031 with no right of renewal.
- 10 Conditions of the lease are reasonably standard, however specifically all trees belong to Council and the tractor shed, pump shed, water tanks and irrigation pump belong to the golf club, with the club being responsible for all ground maintenance.
- 11 The golf clubroom’s building belongs to Council, with the club responsible for interior maintenance and Council responsible for exterior maintenance. Building insurance is paid for by Council but recovered through the rental paid.
- 12 External painting of the clubrooms is due, however not enough funds are held by Council through the Hedgehope Reserve Group (formerly referred to as the domain board) to fund this obligation.
- 13 This unbudgeted expenditure request towards this painting was approved by the Oreti Community Board however the board has requested from Council that this be funded from the Winton Wallacetown ward reserve, as this requires the approval of Council.

- 14 It is also recommended that Council transfer this building to the golf club for \$1.00 so that the gold club become responsible for all aspects of the building's maintenance going forward to avoid a repeat of this situation.

Issues

- 15 It is the issues that are diving this report, primarily the ongoing funding of the Council's obligations towards its building.
- 16 The historical structure of the rental being paid to the local reserve group is not appropriate anymore, as through no fault of anyone the alignment of required income to fund Council's lease obligations has not been adjusted as required. This is dealt with in community views below.
- 17 To avoid this happening again in the future, it is proposed to pay a one-off contribution through this unbudgeted expenditure towards the external painting, transfer ownership of the building to the golf club and create a new property lease in line with these new proposals.
- 18 This will result in Council not being liable for insurance and external maintenance going forward, as these obligations will transfer to the golf club. The club will also benefit from a reduced rental, as well as the ability to apply for funding to maintain their building which they can't do now as the building is owned by Council.

Factors to consider

Legal and statutory requirements

- 19 Two legal requirements exist here. One is the issue of a new lease to the golf club which needs to follow the requirements of the Reserves Act 1977. The other relates to the proposed transfer of ownership of the golf clubhouse from Council to the golf club. Both these will need to be appropriately agreed and documented.
- 20 The Reserves Act 1977 requirements (which are in the current lease) is that upon expiration or sooner determination of the lease no compensation is payable by the lessor for the lessee's improvements, but the lessee may remove such improvements. This would apply to the building if for example the lease was surrendered or the golf club would up as an example.

Community views

- 21 There is no known requirement to publicly seek community views, however apart from Council there are three community groups involved.
- 22 The Hedgehope Reserve Management Group agree with the proposals, and also agree that they no longer need to remain in existence. They have already delivered Council all their historical documentation and will close their bank accounts and transfer their funds to Council once this proposal is formally approved.
- 23 The Hedgehope Golf Club have agreed in a goodwill written response to the proposal of accepting ownership of the building for \$1.00, reduction in the lease rental amount from \$1725.00 plus GST per annum to \$300.00 plus GST per annum, and the contribution towards the costs of the external painting.

- 24 The Oreti Community Board at its meeting on 23 August recommended to Council that the unbudgeted expenditure be funded from the Winton Wallacetown ward reserve and to also approve the transfer ownership of the building to the golf club.

Costs and funding

- 25 It is recommended by the Oreti Community Board that this unbudgeted expenditure of \$3,000 plus GST as a one off be funded from the Winton Wallacetown ward reserve. With the annual report yet to be completed, the estimated balance of the Winton Wallacetown ward reserve at 30 June 2021 is \$410,273.00. The expected balance based on the LTP at 30 June 2031 is \$368,565.
- 26 It should be noted that this is a contribution towards the painting project, being the purchase of the paint. The physical painting is proposed to be undertaken by golf club members under the guidance of those members that are painters.
- 27 If the proposed changes are put in place Council will have no ongoing obligations for the land or building while it's held under lease. The proposed new \$300 plus GST annual rental for the lease will be added to the funds transferred from the reserve group and be ring fenced for this Hedgehope Reserve.
- 28 The book value of the golf club building included in Council's fixed asset register at 30 June 2021 was \$11,386. The transfer of this asset to the club will result in a book loss on sale for Council of \$11,385 however this may vary depending on when settlement occurs.

Policy implications

- 29 None identified. The funding of this unbudgeted expenditure and the building transfer are required to be approved by Council. The new lease will be issued by staff under delegated authority.

Analysis

Options considered

- 30 The options are to approve the funding of the unbudgeted expenditure and that the building be transferred, not approve or a combination of both.

Analysis of Options

Option 1 – Approve funding for unbudgeted expenditure and transfer of the building ownership

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">• will allow building to have overdue painting undertaken• will remove any future Council liabilities for this building after transfer of ownership• will allow the Golf Club to apply for grants/funding for maintenance of building as will be owned by them.	<ul style="list-style-type: none">• building may not be maintained however that will be managed through the lease conditions• Building may be removed but considered unlikely.

Option 2 – Approve funding unbudgeted expenditure but do not approve transfer of the building

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">• will allow building to have overdue painting undertaken.	<ul style="list-style-type: none">• Council will retain ownership of building and be liable for all future costs that go with ownership• will limit/remove golf club's ability to access funding for a building owned by them.

Option 3 – Do not approve funding of unbudgeted expenditure and also not approve transfer of the building.

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">• no advantages identified.	<ul style="list-style-type: none">• will not allow building to have overdue painting undertaken• Council will retain ownership of building and be liable for all future costs that go with ownership• will limit/remove golf club's ability to access funding for a building owned by them.

Assessment of significance

31 Not considered significant.

Recommended option

32 Option 1 – approve funding of the unbudgeted expenditure and building ownership transfer.

Next steps

33 Advise golf club and have all relevant documents prepared and executed.

Attachments

A Plan of Hedgehope Recreation Reserve [↓](#)



Budget carry forward requests from 2020/2021 financial year into the 2021/2022 financial year

Record No: R/21/8/49734
Author: Kate Westenra, Accountant
Approved by: Anne Robson, Chief financial officer

☒ Decision

☐ Recommendation

☐ Information

Purpose

- 1 To inform Council of the projects and operational expenditure approved for delivery in the 2020/2021 year that were not completed by year end and to seek approval from Council to carry forward these projects and budgets to the 2021/2022 year.
- 2 Please note – this list is not a complete list of all projects that were not completed in 2020/2021. Some projects were deferred to 2021/2022 or later years and have been included in the Long Term Plan.

Executive Summary

- 3 Every year as part of the Annual Plan/Long Term Plan process, Council staff and elected members identify projects to be undertaken and the funding needed to complete the work. Due to various reasons, these projects are not always completed in the financial year they were budgeted to occur in and need to be carried forward.
- 4 The projects and operational expenditure identified by staff as needing to be carried forward, along with the reason the work has not been completed, are included in Attachment A. We ask Council to consider this request and approve appropriately.
- 5 As you are aware, as part of the forecasting process Council undertook in February, staff identified projects that potentially weren't going to be completed and these were included in the Long Term Plan for the 2021/2022 year. Where the actual amount spent on a project in 2020/2021 was higher than the remaining budget available, a negative amount has been included in Attachment A. This is to ensure that the overall project budget remains the same.

Recommendation

That Council:

- a) **Receives the report titled “Budget carry forward requests from 2020/2021 financial year into the 2021/2022 financial year” dated 8 September 2021.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the Act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) Approves the budgets below to be carried forward into the 2021/2022 financial year to be funded from the sources as detailed in attachment A.

Category/town	Project name	Amount
Income		
District	Te Anau Wastewater MBIE funding	\$1,000,000
District	10 vehicle sales	\$113,327)
Operational Expenditure		
District	Museum Services funding	\$58,105
District	Internal Audit Programme	\$39,323
District	ESRI project - Eagle technology group	\$15,000
District	SDC Sign Audit & repairs	\$30,000
District	Website development	\$14,000
District	Community Leadership general projects	\$116,000
District	Milford Opportunities Project	\$328,466
District	Engineering Admin consulting	\$61,217
District	Water services consultants	\$85,457
District	Equipment for vehicles - Building regulations	\$12,296
District	Building Solutions software fees	\$22,235
District	Animal Services software fees	\$6,737
District	Environmental Health software fees	\$20,974
District	Emergency works February 2020 flooding costs	\$75,000
Manapouri	Manapouri walkway easements	\$10,000
Riverton	Riverton Harbour endowment rent review and lease renewals	\$11,000
Stewart Island	Butterfields beach drainage grant to Stewart Island Lions Club	\$16,885
Waikaia	Mower	\$31,515
Operational projects		
District	Painting and maintenance of Waste Services sorting shed	\$16,477
Athol	Playground upgrade softfall and edging	\$12,024
Balfour	Playground upgrade softfall	\$687
Colac Bay	Playground upgrade softfall	\$1,686
Dipton	Upgrade playground equipment	\$20,000

Edendale Wyndham	Beautification due to tree felling	\$5,222
Garston	Playground upgrade softfall	\$1,096
Gorge Road	Install bell at war memorial	\$10,000
Mossburn	Playground upgrade softfall	\$442
Nightcaps	Playground upgrade softfall - McGregor Park	\$2,662
Nightcaps	Playground upgrade softfall - Dr Woods Memorial park	\$2,000
Ohai	Playground upgrade softfall	\$962
Orepuki	Playground upgrade softfall	\$661
Riversdale	Playground upgrade softfall	\$857
Riverton	Playground upgrade softfall	\$24,113
Stewart Island	Playground upgrade softfall	\$2,746
Te Anau	Luxmore development – Obtaining subdivision consent	\$152,000
Fortrose	Hall external and roof repaint	\$31,335
Tokanui	Playground upgrade softfall	\$1,141
Wyndham	Wyndham memorial archway	\$19,372
Waikaia	Playground upgrade softfall	\$3,062
Wallacetown	Playground upgrade softfall	\$1,609
Winton	Ivy Russell reserve maintenance project	\$7,958
Winton	Winton Maternity Centre window replacement	\$18,190
Capital		
District	Radio Frequency Identification implementation in Libraries	\$192,046
District	Library book purchases	\$18,325
District	Hardware replacement	\$12,432
Balfour	Balfour Footpath renewal	\$3,007
Browns	Browns Footpath renewal	\$3,500
Colac Bay	Colac Bay Footpath renewal	\$1,769
Dipton	Dipton Footpath renewal	\$2,000
Gorge Road	Gorge Road Footpath renewal	\$966
Mossburn	Mossburn Footpath renewal	\$2,056
Nightcaps	Nightcaps Footpath renewal	\$3,208
Ohai	Ohai Footpath renewal	\$7,942
Orepuki	Orepuki Footpath renewal	\$7,589
Stewart Island	Stewart Is. Footpath renewal	\$16,000
Otautau	Otautau Footpath renewal	\$16,179
Wallacetown	Wallacetown Footpath renewal	\$35,600
Capital projects		
District	Core System replacement	\$248,331
District	Around the Mountain Cycle Trail Parawa Cattlestop improvements	\$31,625
District	District wide Water Supply well head improvements and seal off old wells	\$50,217
District	Water Supply SCADA software upgrade	\$58,051
District	Sewerage inflow project to comply with consent limits	\$101,611
District	Winton office refurbishment	\$151,597
District	Waste Services replacement of Plant and Equipment	\$18,681
Manapouri	Sewerage consent renewal preparation	\$87,945
Ohai	New UV/Treatment Plant upgrade	\$38,572

Ohai	Sewerage seals and arms to both trickling filters	\$61,500
Ohai	Ohai - Consent Renewal Preparation	\$4,417
Riversdale	Sewerage treatment upgrade stage 2	\$42,951
Riverton/Aparima	New waste disposal station	\$45,813
Riverton	Water Supply Additional UV disinfection	\$92,276
Stewart Island	Install new streetlights on the waterfront in Oban, Stewart Island	\$1,686
Stewart Island	Upgrade Bathing beach track and signage	\$7,941
Te Anau	CCTV in Te Anau Town Centre	\$6,475
Te Anau	Sandy Brown second water tank and VSD on third pump	\$52,429
Te Anau	Lakefront Drive watermain Upgrade	\$58,893
Te Anau Rural Water	Consent Renewal Preparation (Ramparts)	\$23,046
Te Anau	Runway surface rehabilitation	\$30,000
Thornbury	Thornbury Playground	\$28,044
Waikawa/Niagara	Hall reclad exterior	\$20,313
Tokanui	Tokanui Playground Equipment	\$3,876
Tokanui	Embankment work to ponds - Discharge Channel	\$79,651
Tuatapere	Recoat Aerator frame at Water Treatment Plant	\$55,953
Eastern Bush	Water Supply Upgrade - Stage 1	\$215,761
Otautau	Otautau Main Street watermain	\$65,272
Winton	New Information Kiosk at East Winton Cemetery	\$15,744
Winton	Sewerage consent renewal preparation	\$55,898
Winton	Gap Road East pumped sewer	\$24,000
Wyndham	Wyndham toilet	\$118,461
SIESA	Underground cable installation Ringaringa Road	\$6,942
SIESA	Replacement Generator/Turbine	\$140,000
District	Stimulus Programme as agreed to the Government funding agreement	\$1,337,840
Manapouri	Water Treatment Plant upgrade re turbidity	(\$30,796)
Riverton	Taramea Bay Toilet renewal	(\$15,239)
Stewart Island Jetties	Rebuild Ulva Island Jetty	(\$13,570)
Stewart Island Jetties	Golden Bay Wharf Rebuild	(\$31,785)
Clifden Bridge	Clifden Bridge Interpretation Panel	(\$10,000)
Te Anau	Walkway in water park area	(\$10,445)
Otautau	Arboretum Glenburn Toilet refurbishment	(\$15,000)
Motor Vehicle		
District	Eight vehicle replacements	\$293,088

Background

- 6 Every year Council staff carry out projects as planned in the Annual Plan/Long Term Plan. Although many are completed in the financial year they were budgeted in, a number of projects are delayed for varying reasons, but are still identified as needed by the community and Council staff.
- 7 These projects are generally carried forward into the next financial year, whether they are a project in progress or not started. The majority of carry forwards are projects of a maintenance

or capital nature, budget managers can also request operational expenditure to be carried forward where commitments are in place.

- 8 In the 2021/2022 year only one round of forecasting occurred, in February 2021, during the drafting of the Long Term Plan. During forecasting some projects were identified that would not be completed or started during 2020/2021. These were included in the working version of the Long Term Plan for 2021/2022 and were included in the final plan that was adopted by Council in June 2021.
- 9 The completion of the Annual Report for 2020/2021 is the last stage of identifying projects and operational expenditure to carry forward. This final step requires managers to consider whether the project is still required and to make a request for approval to carry forward the project along with the associated budget. The projects and operational expenditure are considered and approved by the relevant group manager before finance completes the final check on the budget being available to be carried forward, given any actual costs during the year, before including them in this report.
- 10 During the Annual Report process a review of projects included in the 2021/2022 Long Term Plan was completed to determine if any funds were used during 2020/2021 that had not been anticipated. This review has resulted in negative amounts included in attachment A for four capital projects.
- 11 A review was also undertaken on the 2021/2022 project programme which identified three project budgets that are no longer required. These projects have been included in Attachment A as negative amounts to remove the projects budgets completely.
- 12 There are two items of income that are required to be carried forward, one being an MBIE grant and the other is vehicle sales following vehicle replacements. Details of these two items are included in Attachment A.
- 13 The list in Attachment A has 106 items proposed to be carried forward to the 2021/2022 financial year with a net value of \$4,047,867.
- 14 The Stimulus Programme is one of the carry forward items in Attachment A. Council approved a package of work for \$13.53M in August 2020. The Stimulus carry forward includes budget movement between 2020/21 and 2021/22 in the Stormwater, Wastewater and Water Supply activities and between individual projects within these activities. This is to ensure that the overall Stimulus programme budget remains as approved and that Council is maximising the full use of available government funding. This programme was on track for the March 2022 completion deadline prior to COVID-19 lockdown. Unfortunately, physical works were put on hold during this time, however sites in the design phase have been able to continue. It is unknown at this stage what the full impact on the timeline has been but Council may need to request an extension on this funding.

Issues

- 15 Budgets carried forward into the next financial year are considered to be unbudgeted in the 2021/2022 year. Approval is required from Council to undertake the work.

Factors to Consider

Legal and Statutory Requirements

- 16 Section 32 of the Local Government Act 2002 requires Council to approve the purchase or disposal of assets where it is not in accordance with the Long Term Plan. A number of the items proposed to be carried forward relate to expenditure on assets and therefore require Council's approval.

Community Views

- 17 All projects discussed in this report have been consulted on as part of the Annual Plan, Long Term Plan or as unbudgeted expenditure when they were originally budgeted to occur. Communities are informed via the community board throughout the year on the status of projects. The Community Board also receive year end reports which include the carry forward detail shown in Attachment A.

Costs and Funding

- 18 All the budgets being requested to be carried forward have previously been approved by Council and in total have not changed as part of the carry forward process. The approval from Council may have been by inclusion in the 2018-2028 Long Term Plan or Annual Plan 2020/2021, approved as a carried forward project from 2019/2020 or approval for unbudgeted expenditure during the year.
- 19 If projects were to be funded from rates, the unspent rates will have been retained in a relevant reserve and then utilised to fund the project costs when incurred. If a project is to be funded by a loan or reserves, the draw down does not take place until the actual costs are incurred.

Policy Implications

- 20 Council has provided delegated authority to the chief executive to approve expenditure for capital items and goods and services within the current budgets (the Annual Plan or Long Term Plan). The chief executive can also authorise operating expenditure items not within budgets up to \$10,000 where suitable funding is available. Council retains the authority to approve the budgets and unbudgeted items greater than \$10,000.

Analysis

Options Considered

- 21 Council has the discretion to approve or decline individually or in aggregate, the proposed carry forward budgets.
- 22 It is assumed, in regards to the options below, that Council will approve the carry forward of projects that have already begun and operational expenditure already committed.

Analysis of Options

Option 1 – Approve all expenditure to be carried forward (as per the attached list)

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">Projects and operational expenditure can be completed/undertaken although later than originally planned.	<ul style="list-style-type: none">There is a risk that costs will increase as a result of the delay/deferral in undertaking the project,There is risk that we won't have sufficient resources to complete projects on top of the Long Term Plan programme.

Option 2 – Approve selected expenditure only

- 23 Council can choose which expenditure is to be carried forward. It is recommended that should Council consider this option, that consideration is given to how this is done.
- 24 Councillors can identify what the different types of expenditure are in Attachment A using the heading along with the total amount for each category.

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">Selected expenditure and projects can be undertaken, although later than originally planned,Minimising risk associates with having sufficient resources to complete projects on top of the Long Term Plan programme.	<ul style="list-style-type: none">Projects originally planned do not get completed or undertaken (when they have not commenced). These may need to be reconsidered as part of the next Annual Plan/Long Term Plan process,Risk associated with forecast costs increasing as a result of the delay/deferral. Although managers have indicated for these projects that any change will not be significant at this stage,Rates may have been collected for projects that were not completed, particularly if operational costs.

Option 3 – Approve projects but decline all other expenditure

- 25 Only projects budgeted in 2021/2022 or already started in 2020/2021 will be undertaken.
- 26 Where the expenditure was funded from rates, the surplus funds will be retained in a reserve for future use.

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">• Councils priorities may have changed enabling funds set aside for these being re-directed as appropriate,• Minimising risk associates with having sufficient resources to complete projects on top of the Long Term Plan programme.	<ul style="list-style-type: none">• Projects originally planned do not get completed or undertaken (when they have not commenced), will need to be reconsidered as part of the next Annual Plan/Long Term Plan process,• Rates may have been collected for projects that will not be completed,• Operational commitments will have to be broken.

Assessment of Significance

- 27 When considering the factors to assess in the Significance and Engagement Policy, the carry forwards in this report are not deemed significant.
- 28 When assessing significance, consideration has been given to the impact and consequences of the items being carried forward on the future of the District, people who are likely to be particularly interested in the items and the capacity of Council to perform its role.
- 29 The majority of the items have been consulted on in the 2018-2028 Long Term Plan process and Annual Plans, or are unbudgeted expenditure specifically approved during the year by Council. Individually or in aggregate the items do not have a significant impact on any one community or the whole District or the level of services in any one activity.

Recommended Option

- 30 Option 1 – approve all projects to be carried forward (as per the attached list).

Next Steps

- 31 Action Council's recommendation, including amending financial forecasts for projects approved to be carried forward and advising Council staff and communities of projects approved to be carried forward.

Attachments

- A 2020 2021 Proposed carry forwards to 2021 2022 [↓](#)

Type	Town	Activity	Project name	Funded from	Carry Forward Explanation	Actual Carry Forward
Income						
Income	District	Sewerage	Te Anau Wastewater MBIE funding	Loan	Funding from MBIE subject to completion of construction of the project, yet to be commission at 30/6/21	(1,000,000)
Income	District	Corporate Services	Four vehicle sales	Reserve	Due to a delay in the vehicles replacement, the current vehicles sales have not occurred.	(51,555)
Income	District	Roading	Road Safety community advisor vehicle sale	Reserve	Due to a delay in the vehicles replacement, the current vehicles sales have not occurred.	(10,220)
Income	District	Environment Health	Five vehicle sales	Reserve	Due to a delay in the vehicles replacement, the current vehicles sales have not occurred.	(51,552)
Total Income						(1,113,327)
Operational						
Operational	District	Community Assistance	Museum Services funding	Reserve	More external funding received in 2019/2020 than budgeted so Council contribution not required and put into District operations, this may need to be available for the 2020/2021 year	58,105
Operational	District	Corporate Services	Internal Audit Programme	Reserve	Internal Audit programme not completely carried out and moved to next year as per Council report (F & A committee)	39,323
Operational	District	Corporate Services	ESRI project - Eagle technology group	Reserve	The services were not entirely provided as expected, therefore the remainder of the budget is required to complete the project in the 2021/22 year.	15,000
Operational	District	Corporate Services	Sign Audit	Reserve	The audit of signs throughout the district was completed but the second part of the project to replace old logos and damaged signage based on the audit findings was not able to be completed.	30,000
Operational	District	Corporate Services	Website development	Reserve	Staff started work on redeveloping the website but were unable to get as far as planned due to other prioritised work. This budget will enable external developers to fast track this work.	14,000
Operational	District	Community & Futures	Community Leadership general projects	Reserve	Budget to cover Community Leadership projects around strategy and research that were not completed and where work is still to be carried out	116,000
Operational	District	Regional Development	Milford Opportunities Project	Government Grant	This project extended beyond the anticipated June 2021 end date. A variation to the contract will be sort from MBIE to use the remainder of the grant funding towards a stage 3 project.	328,466
Operational	District	Corporate Services	Engineering Admin consulting	Reserve	This is a timing issue, work has commenced and budget committed in 20/21.	61,217
Operational	District	Corporate Services	Water services consultants	Reserve	A consultant has been engaged to provide services through the transition of internal staff changes. This resource is also being used to undertake resource consenting applications.	85,457
Operational	District	Building Solutions	Equipment for vehicles - Building regulations	Reserve	Equipment for new vehicles is required once the new vehicles arrive.	12,296
Operational	District	Building Solutions	Software fees	Reserve	Trapeze licenses/Pathway mobile inspection fees for 2021/2022, currently sitting in prepayments. R/20/8/31883 Council approved District Ops funding 27 August 2020.	22,235
Operational	District	Animal Services	Software fees	Loan	Trapeze licenses/Pathway mobile inspection fees for 2021/2022, currently sitting in prepayments.	6,737
Operational	District	Environment Health	Software fees	Loan	Trapeze licenses/Pathway mobile inspection fees for 2021/2022, currently sitting in prepayments.	20,974
Operational	District	Roading	Emergency works February 2020 Flooding	NZTA / Loan	Work still left to complete at McLean Road along with minor finishing works that are unable to be completed until spring	75,000

Type	Town	Activity	Project name	Funded from	Carry Forward Explanation	Actual Carry Forward
Operational	Manapouri	Streetscapes	Manapouri walkway easements	Development Cont.	Work was approved by the Fiordland CB in October 2020. This was placed on hold pending further investigation of the alignment of the walkway as part of the 2021/22 walkway project.	10,000
Operational	Riverton	Harbour	Riverton Harbour endowment rent review and lease renewals	Reserve	Council approved an additional budget of \$20K through Feb 2021 forecasting. \$9K was spent on valuations, the balance is required for legal fees and further valuation costs.	11,000
Operational	Stewart Island	Community & Futures	Butterfields beach drainage grant to SI Lions Club	Reserve	Expenditure approval granted 14 June 2021.	16,885
Operational	Waikaia	Streetscapes	Mower	Reserve	The contractor is currently completing the paperwork to become an approved contractor. Once this is actioned, the grant for the mower will be made.	31,515
Total Operational						954,210
Operational Projects						
Operational Project	District	Waste Services	Shed Painting and maintenance	Loan	Maintenance work on the sorting shed is required, this will be painting, roof repairs and lean-to roof timber beams replacements.	16,477
Operational Project	Athol	Parks & Reserves	Athol playground upgrade softfall and edging	Reserve & Loan	Remaining Athol playground budget is required for new boxing, to top up the soft fall and to remove and replace a piece of equipment.	12,024
Operational Project	Balfour	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	687
Operational Project	Colac Bay	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	1,686
Operational Project	Dipton	Parks & Reserves	Dipton Playground	Reserve	This project was put on hold to combine it with the 2021/22 playground project to enable all work to be done at the same time.	20,000
Operational Project	Edendale Wyndham	Parks & Reserves	Beautification due to tree felling	Reserve	Scope of works was determined in May, physical works was unable to be carried out prior to 30 June.	5,222
Operational Project	Garston	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	1,096
Operational Project	Gorge Road	Representation & Advocacy	Install bell at war memorial	Ward Reserve	This project budget has been carried forward for a number of years, this budget is from the Waihopai Toetoes ward. The scope of works has changed a number of times since the original proposal. The Ward councillor and CB have agreed this will be the last time this budget is carried forward if the project is not completed.	10,000
Operational Project	Mossburn	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	442
Operational Project	Nightcaps	Parks & Reserves	Playground upgrade softfall - McGregor Park	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	2,662
Operational Project	Nightcaps	Parks & Reserves	Playground upgrade softfall - Dr Woods Memorial park	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	2,000
Operational Project	Ohai	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	962

Type	Town	Activity	Project name	Funded from	Carry Forward Explanation	Actual Carry Forward
Operational Project	Orepuki	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	661
Operational Project	Riversdale	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	857
Operational Project	Riverton	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	24,113
Operational Project	Stewart Island	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	2,746
Operational Project	Te Anau	Other Facilities	Luxmore development – Obtaining subdivision consent	Reserve	Budget approved in April 2021 but was still in the planning stage as 30 June with no costs incurred.	152,000
Operational Project	Fortrose	Halls	External and roof repaint	Loan	This project has been deferred due to waiting on a decision from the community as to whether or not the hall is still required. This investigation work rescheduled for the 21/22 year will provide information that will assist with making this decision.	31,335
Operational Project	Tokamui	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	1,141
Operational Project	Wyndham	Community Assistance	Wyndham memorial archway	Ward reserve & external grant	This project is very specialised, due to this, staff could not engage the services of an appropriate contractors. Discussions with a suitable contractor are currently happening, their availability is yet to be determined.	19,372
Operational Project	Waiakia	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	3,062
Operational Project	Wallacetown	Parks & Reserves	Playground upgrade softfall	Reserve	Work still to be undertaken to get the playground up to a standard that can then be maintained within the adjusted LTP budget. Playgrounds around the district are not all at the same level to begin the planned softfall work.	1,609
Operational Project	Winton	Parks & Reserves	Ivy Russell reserve maintenance project	Reserve	The current contractor fell behind the expected delivery dates for the tree assessment. As a result tree maintenance and remedial works were not all able to be undertaken by 30 June.	7,958
Operational Project	Winton	Other Facilities	Winton Maternity Centre window replacement	Reserve	Delays in the supply of materials and installers.	18,190
Total Operational Projects						336,302
Total Operational Expenditure						1,290,512
Capital						
Capital	District	Library Services	RFID implementation	Loan	Project underway, completion expected Dec/Jan 2022 FY subject to vendor getting to NZ from Melbourne	192,046
Capital	District	Library Services	Library book purchases	Reserve	Replacement of books lost to mould with the aim to purchase books before the Winton library reopens.	18,325
Capital	District	Corporate Services	Hardware replacement	Loan	Due to supply chain delays due to COVID, computer hardware which should have arrived prior to year end did not arrive.	12,432
Capital	Balfour	Footpaths	Balfour Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	3,007

Type	Town	Activity	Project name	Funded from	Carry Forward Explanation	Actual Carry Forward
Capital	Browns	Footpaths	Browns Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	3,500
Capital	Colac Bay	Footpaths	Colac Bay Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	1,769
Capital	Dipton	Footpaths	Dipton Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	2,000
Capital	Gorge Road	Footpaths	Gorge Road Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	966
Capital	Mossburn	Footpaths	Mossburn Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	2,056
Capital	Nightcaps	Footpaths	Nightcaps Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	3,208
Capital	Ohai	Footpaths	Ohai Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	7,942
Capital	Orepuki	Footpaths	Orepuki Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	7,589
Capital	Stewart Island	Footpaths	Stewart Is. Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	16,000
Capital	Otautau	Footpaths	Otautau Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	16,179
Capital	Wallacetown	Footpaths	Wallacetown Footpath renewal	Reserve	Local contribution for renewal work that was not required in 2020/21. Additional funding is required following the changes to NZTA funding, the 2021/22 programme is being redeveloped.	35,600
Total Capital						322,619
Capital Projects						
Capital Project	District	Corporate Services	Core System replacement	Loan	Delays in setting the 20/21 CAPEX workplan due to increased urgency to address cyber security threats, along with introducing the FMIS project.	248,331
Capital Project	District	Cycle Trails	Around the Mountain Cycle Trail Parawa Cattlestop improvements	Reserve	Delays achieving land owner agreement.	31,625
Capital Project	District	Water supply	Well head improvements and seal off old wells	District Funding - Loan	This project has one remaining bore to be completed in Otautau.	50,217
Capital Project	District	Water supply	SCADA software upgrade	District Funding - Loan	Multiyear project which is in construction phase. This carry forward budget is to be added to the existing 2021/2022 project budget.	58,051
Capital Project	District	Sewerage	Inflow project to comply with Consent limits	District Funding - Loan	Budget required to enable continuation of investigation and monitoring work that is currently underway to understand scope of the inflow & infiltration issues within the Winton township.	101,611

Type	Town	Activity	Project name	Funded from	Carry Forward Explanation	Actual Carry Forward
Capital Project	District	Offices & Buildings	Winton office refurbishment	Reserve	Some initial work has been carried out on confirming the design of the refurbishment. With this completed staff are now in a position to start work on the construction to complete the refurbishment of the office.	151,597
Capital Project	District	Waste Services	Replacement of Plant and Equipment	Loan	Maintenance work on the transfer station, which will include completion of shifting the Glass crusher (due to health & safety reasons) and associated hardstand improvement work around the glass crusher area.	18,681
Capital Project	Manapouri	Sewerage	Consent Renewal Preparation	District Funding - Loan	Multiyear project which is in consultation and design phase. Budget to be added to the 21/22 budget.	87,945
Capital Project	Ohai	Sewerage	New UV/Treatment Plant upgrade	District Funding - Loan	Project is progressing through planning and design scoping with a new UV unit to be installed as per consent conditions. Budget will be combined with P-10464 for the new UV install at the Ohai WWPT.	38,572
Capital Project	Ohai	Sewerage	Seals and arms to both trickling filters	District Funding - Loan	Project is progressing through design scoping and will be completed in the 21/22 financial year.	61,500
Capital Project	Ohai	Water Supply	Ohai - Consent Renewal Preparation	District Funding - Loan	Project is still progressing through consent.	4,417
Capital Project	Riversdale	Sewerage	Treatment Upgrade Stage 2	District Funding - Loan	Multiyear project which is in consultation and tender phase.	42,951
Capital Project	Riverton/Aparima	Footpaths	New waste disposal station	Reserve & external grant	Physical works was unable to begin prior to 30 June. Archaeological authority has been granted.	45,813
Capital Project	Riverton	Water Supply	Additional UV disinfection	District Funding - Loan	Project is progressing through construction currently.	92,276
Capital Project	Stewart Island	Footpaths	Install new streetlights on the waterfront in Oban, Stewart Island	SIVL Grant	Powernet unable to get the electrical connection completed in the 21/21 financial year. Expectation to be completed before August.	1,686
Capital Project	Stewart Island	Streetscapes	Upgrade Bathing beach track and signage	SIVL Grant	Signage and track surfacing is still in progress.	7,941
Capital Project	Te Anau	Footpaths	CCTV in Te Anau Town Centre	Reserve	CCTV unable to be completed in the 20/21 financial year due to an outstanding building owner agreement which is being worked through.	6,475
Capital Project	Te Anau	Water Supply	Sandy Brown second water tank and VSD on third pump	District Funding - Loan	Project is progressing through the design scoping phase and will be completed in the 21/22 financial year.	52,429
Capital Project	Te Anau	Water Supply	Lakefront Drive watermain Upgrade	District Funding - Loan	Project is progressing through construction after a delayed start. Part of this budget was deferred to the 21/22 year through the LTP.	58,893
Capital Project	Te Anau Rural Water	Water Supply	Consent Renewal Preparation (Ramparts)	Loan	This project is awaiting a third party agreement to be accepted through Environment Southland.	23,046
Capital Project	Te Anau	Airport	Runway surface rehabilitation	Reserve	The condition rating assessment was completed, associated investigation work is yet to be packaged in the runway renewal delivery.	30,000
Capital Project	Thornbury	Toilets	Thornbury Playground	Loan	Weather and ground conditions are holding this project up.	28,044
Capital Project	Waikawa/Niagara	Halls	Reclad Exterior	Loan	This project was delayed due to issues with the delivery of materials. Project is expected to be completed in July 2021.	20,313
Capital Project	Tokamui	Parks & Reserves	Tokamui Playground Equipment	Reserve	Project completion has been delayed due to equipment supply delays.	3,876
Capital Project	Tokamui	Sewerage	Embankment work to ponds - Discharge Channel	District Funding - Loan	Project is progressing through construction currently.	79,651
Capital Project	Tuatapere	Water Supply	Recoat Aerator frame at Water Treatment Plant Tuatapere	District Funding - Loan	Project is progressing through construction currently.	55,953
Capital Project	Eastern Bush	Water Supply	Water Supply Upgrade - Stage 1	District Funding - Loan	Multiyear project which is still in the design phase. Remaining budget is to be spent on drilling investigation bores but has been delayed due to landowner agreement still to be finalised.	215,761
Capital Project	Otautau	Water supply	Otautau Main Street watermain	District Funding - Loan	Further work is required at the water plant related to the changes made with the new rising main that was installed.	65,272

Type	Town	Activity	Project name	Funded from	Carry Forward Explanation	Actual Carry Forward
Capital Project	Winton	Cemeteries	New Information Kiosk at East Winton Cemetery	Development Cont	There have been multiply delays over the years in developing information boards.	15,744
Capital Project	Winton	Sewerage	Consent Renewal Preparation	District Funding - Loan	Multiyear project which is still in the design phase. Remaining budget is to be spent on drilling investigation bores but has been delayed due to landowner agreement still to be finalised.	55,898
Capital Project	Winton	Sewerage	Gap Road East pumped sewer	District Funding - Loan	Project is progressing through construction currently.	24,000
Capital Project	Wyndham	Toilets	Wyndham toilet	Loan	All toilets are to be put out as a bulk tender.	118,461
Capital Project	SIESA	SIESA	Underground cable installation Ringaringa Road	Reserve	The contractor was unable to complete the work required within the financial year.	6,942
Capital Project	SIESA	SIESA	Replacement Generator/Turbine	Reserve	Project has not commenced, the budget is required for work to be carried out in the 2021/22 Financial year.	140,000
Capital Project	Manapouri	Water Supply	Water Treatment Plant upgrade re turbidity	District Funding - Loan	Multiyear project which is still in the design phase. More was spent in the 20/21 year than originally budgeted so this is reduce the 21/22 budget.	(30,796)
Capital Project	Riverton	Toilets	Taramea Bay Toilets	Loan	This project was deferred through the LTP, however some costs were incurred in 20/21 so this is to reduce the 21/22 budget.	(15,239)
Capital Project	Stewart Island Jetties	Jetties	Rebuild Ulva Island Jetty	Reserve, SIVL grant & Loan	Project was deferred through the LTP. However costs were incurred so this is to reduce the 21/22 budget.	(13,570)
Capital Project	Stewart Island Jetties	Jetties	Golden Bay Wharf Rebuild	SIVL Grant	Project was deferred through the LTP. However costs were incurred so this is to reduce the 21/22 budget.	(31,785)
Capital Project	Clifden Bridge	Parks & Reserves	Clifden Bridge Interpretation Panel	Loan	This budget is a double up in the LTP. P-10944 is in BU 28190 where the project should be.	(10,000)
Capital Project	Te Anau	Parks & Reserves	Walkway in water park area	Reserve	Te Anau CB cancelled this project so that reserve funding was available for a larger project.	(10,445)
Capital Project	Otautau	Parks & Reserves	Arboretum Glenburn Toilet refurbishment	Loan	This refurbishment was rebudgeted in the 2024/25 financial year without removing the 2021/22 budget.	(15,000)
Total Capital Projects						1,917,135
Stimulus Programme						
Stimulus	District	Various	Stimulus Programme as agreed to the Government funding agreement	Grants - stimulus funding	The Stimulus programme is a package of multi-year projects. Budgets are being moved to and from the 2021/2022 financial year to ensure budget is available to utilise the total Stimulus funding.	1,337,840
Total Stimulus Programme						1,337,840
Vehicle Renewals						
Vehicle Renewal	District	Corporate Services	Three vehicle replacement	Reserve	Vehicles have not yet been replaced.	117,772
Vehicle Renewal	District	Roading	Road Safety community advisor vehicle sale	Reserve	Vehicle has not yet been replaced.	35,770
Vehicle Renewal	District	Environment Health	Four vehicle replacement	Reserve	Vehicles have not yet been replaced.	139,546
Total Vehicle Renewals						293,088
Total Capital Expenditure						3,870,683
Total Carry Forward						4,047,867

Management report

Record No: R/21/8/47103
Author: Dianne Williams, Mayoral Support
Approved by: Cameron McIntosh, Chief executive

☐ Decision

☐ Recommendation

☒ Information

Chief executive update

Covid-19

1. Southland District Council (SDC) staff have responded extremely well to the outbreak of the delta variant of Covid-19. When the announcement was made for the nation to commence Level 4 lockdown, the incident management team (IMT) convened immediately and re-established the protocols required to allow as much of normal activity as possible to continue.
2. While the experience of working from home is not unfamiliar since the arrival of the pandemic, it is important to acknowledge that working from home under lockdown conditions is not the same as remote working, and for many the challenges of working at home have been significant. Fortunately, the unexpected presence of family members on zoom calls is now generally accepted with good humour, but for many of our staff, working under these conditions is far from ideal.
3. We all look forward to the return to normal life and will look to reopen council facilities as soon as we are allowed to do so safely. In the meantime, I want to express my thanks to the IMT and the staff of SDC for their efforts and their patience.

RMA reform

4. Approximately 3,000 submissions on the Natural and Built Environments (NBA) bill were received by the Select Committee. SDC submitted, and was also part of the wider Otago and Southland joint Local Government Submission. The joint submission was presented to the Select Committee by Mayors Hicks and Cadogan on 6 September via zoom. The bill charts a new path for environmental management and will replace the now 30 year old RMA. Another more detailed exposure draft of the NBA will be made public next year for submissions which will contain more detail than the initial version.
5. The proposed Spatial Planning Act is also a key component of the RMA reform as it will set a long-term strategic approach on how we integrate land use planning, infrastructure provision, environmental protection and climate change matters. Both pieces of legislation are proposed to be brought into law this parliamentary term. These pieces of legislation will require regional coordination between local government and iwi to provide regional environmental plans.

National environmental policies

6. There are a number of key policies being progressed by central government which specifically manage key parts of our natural and built environment. These support the interpretation and implementation of the high-level legislation. The key National Policy Statements that are being generated which impact SDC are the ones for Indigenous Biodiversity (NPS-IB) and Highly Productive Land (NPS-HPL). A revised exposure draft on the NPS-IB is anticipated in early October for a two week consultation round with local government and iwi. SDC submitted in

2020 on the previous exposure draft, key points on that submission were the significant cost and volume of work required to give effect to the proposed requirements. Indications are that the NPS-IB will be finalised in the first quarter of 2022. The NPS-HPL is progressing and intended to set national direction on maintaining the productive capacity of our high value soils. No timeframe has been given of when this NPS will be finalised.

Climate Change

7. A climate Adaptation Act is proposed as part of the RMA reform to ensure that climate change impacts are adequately managed and considered through planning and long-term spatial strategies. For local government, there are two key workstreams, these being adaptation (from already present and impending climate change impacts) and mitigation (limiting carbon emissions).
8. In the adaptation space, A National Climate Change Adaptation Plan is due to be published in August 2022 which will provide guidance on how local government manages the increasing impacts of climate change on infrastructure, communities and private investments. central government work is also underway to set up local risk assessment framework in order to get regional and local risks understood and managed in a consistent way across the country.
9. In the mitigation space, central government has been consulting on reforming part of the Emissions Trading Scheme (ETS) as it relates to industrial allocation, this is to ensure a fair and efficient market for carbon credits. Additionally, the Climate Change Response Act 2002 requires the government to prepare emission reduction plans with emission targets to transition NZ towards being net carbon neutral by 2050. The first emissions reduction plan is due to be published by the end of 2021.

Services and Assets

Stewart Island Electrical Supply Authority (SIESA)

10. Replacement engine and generator unit has now been delivered and is on track for installation in September 2021.
11. The 2021/2022 annual works programme is pending and indications are that budget increase will need to be sought as budgets were set prior to submission of asset management plan.
12. Recent investigations have revealed issues with power transformer that require the replacement identified in the 10 year plan brought forward. The existing transformer has been removed for inspection with the result that further service or refurbishment is not possible. Temporary options for transformer replacement are currently being identified prior to replacement with new unit, due to long lead times.
13. Business case for smart meter replacement is being developed and this will be absorbed into resized budgets if required.

Forestry (IFS)

14. Final valuation for FY2020/2021 year has been received.
15. Draft harvest plan for Waikaia in FY2021/2022 has been submitted, pending action in fourth quarter of 2021.

Around the Mountains Cycle Trail

16. Six yearly structural inspections of the bridges on the trail are complete with minor items identified. These have been instructed for action by the maintenance contractor and work is progressing. Price has been requested for further maintenance items identified through the annual trail inspection.
17. Pre-development project work to address the Centre Hill erosion has commenced and SDC is continuing to work with Landcorp to identify suitable solutions including appropriate survey instruments for the site.
18. Council has made the decision to establish an Around the Mountain Cycle Trail Trust to manage the user experience. Councillor Christine Menzies has been appointed to this trust as Council's representative.

Te Anau Manapouri airport

19. Due to a backlog of work at the Civil Aviation Authority toward the end of 2020, and therefore a delay in the Safety Management System (SMS) audit, an exemption to the SMS was obtained through to 30 September 2021. SMS and certificate renewal audit is scheduled for 25 August and was on track. Alternative paths to certificate renewal are being considered if the audit is impacted by Covid alert levels.
20. Investigative test pits and ground water monitoring is being planned in preparation for design and construction phases of runway surface renewal in FY 2021/2022 and FY 2022/2023. Offer of service has been accepted for professional services and this work has commenced. A specification for the investigation scope is complete and a contractor is being engaged to undertake this work, in conjunction with engineering inspection and logging, within the month.

Property

21. Staff levels are now back to a full complement however the demands of community housing means that this is using up all of the returned staff resource with little or no action undertaken to deal with the significant work backlog in other areas.
22. Work that is underway is the rent review and renewal of Riverton Harbour Endowment farming leases which happen every 21 years. This is at the stage of Council valuers completing their task to advise the Lessees of the new rentals and the new rental amounts have been sent to the Lessees. The draft leases with Landcorp for the lands at Kepler are at the final stages awaiting resolution of water allocation and flows being confirmed.
23. Numerous internal enquiries regarding what is allowed on Council property are being received and processed. This is an important role given the many differing land status, to ensure the asset managers are undertaking work on Council property and in accordance with the many restrictions that may, or may not, exist with each status.

Strategic water and waste

Operations and maintenance contract 10/01

24. Downer has been responding to a higher than normal amount of sewer blockages recently.
25. A sewer blockage in Riverton resulted in an overflow from a manhole beside the Orepuki Highway. Environment Southland were notified and attended the clean-up. The blockage was found to be caused by wet wipes.
26. A level 4 lockdown was announced on 17 August. No non-essential operations or maintenance activities to be undertaken. Where routine or reactive work is required to maintain essential services, Downer's level 4 operating procedures were implemented. These restrict interaction of Downer staff with each other and the public. Additional PPE such as masks gloves and sanitiser are employed as appropriate.

Resource consent renewals (wastewater)

Wastewater scheme upgrade	Description	Capital budget
Balfour WWTP and consent	A revision to the work scope and strategy has been requested. This is due to the likely limited number of future disposal options to be short-listed early in the proposal.	\$1.5 million
Edendale/Wyndham WWTP and consent	A strategy has been proposed and this has also had a revision requested to the scope on the basis that the primary feature will be disposal and not enhancing treatment levels.	\$3.0 million
Manapouri WWTP and consent	The missing bore has been located and requires physical works attention. A feature survey, drone flight, pond drop test and sludge depth assessment have all been scheduled. No further working group meetings will be scheduled until this engineering data has been collated for short-list considerations.	\$4.0 million
Riversdale WWTP and consent	The submission period has closed for the resource consent and a determination is underway with draft conditions expected soon. A survey has been engaged to carry out both the legal and feature survey subject to Council decision. Tender documents and timeline are progressing.	\$2.6 million
Stewart Island disposal field	Disposal field upgrade design has been completed and will be constructed later this year.	
Winton WWTP and consent	The revised strategy was presented to Environment Southland and the Winton Working Group on 3 August. A staged approach is now being developed subject to further input from Te Ao Marama.	\$25 million

Wastewater scheme upgrade	Description	Capital budget
Gap Road East pipes	<p>The option to connect with Invercargill has yet to be further consulted at staff level.</p> <p>Te Anau Earthworks have commenced pipeline installs for the pressure sewer and a water pipe to Rata Lodge.</p> <p>Council has contributed financially to the upgrade size of these pipes to be vested in Council.</p>	

Stimulus

27. Work continues with the Stimulus programme, and 2020/2021 LTP capex programme packages with 12 projects completed, another eight underway.
28. There are five projects currently under design and one project with completed design awaiting allocation to one of the panel contractors.
29. We are confident that the programme will be delivered on time, in line with our forecasted programme as we are using the Stimulus contracting panel (made up of four local contracting companies) for our delivery. Our use of external professional resource for quality assurance, quantity surveying/ price evaluation and contract engineering is proving efficient and valuable.
30. This stimulus report is based on a three day lockdown at this stage, but our delivery confidence would slip if it extended into weeks.

Project delivery team (PDT).

31. The 2021/2022 works programme is well underway with circa \$3m turnover completed in July
32. Carry forward process is nearly complete but overall won't have a major impact on the 2021/2022 year.
33. Contractor engagement drop in sessions where held in August with over 40 local contractors attending.
34. First major package of works has gone out to market with the toilet replacement package.
35. Major bridge package is due out to market end of August.
36. Brendan Gray has started in the project delivery team manager role as of 16 August.

Community facilities

37. The team has been working with the finance team to complete the year process.
38. We are now working through the process of packaging up the capital works programme so that it can go out to the market. Part of this process is engaging with our communities to let them know what we are going to deliver this financial year. The first part of this process is a communications piece that will go out in the First Edition.
39. In addition to this there is also a drive to engage with the contracting market so that they are aware of the amount of work that is coming on stream. Two drop sessions have been arranged so that staff can update interested parties on the works programme and Council's approved contractor requirements.

40. There are still some projects from the last financial year that are yet to be completed. A lack of contractor resource and a delay in materials has contributed to these projects not being completed.
41. The activity management plan maturity assessment has identified some gaps in our existing plans and we will be working through how to address these issues to bring the plans up to the levels recommended in the assessment.
42. Some of focus will now shift to looking at preparing for the 2022/2023 financial year's capital works programme.
43. Work is continuing with the fire evacuation plans for all of the halls. Plans have been lodged with FENZ and are now awaiting approval. Staff are working with the community leadership team and the community boards to meet with hall groups and their communities to inform them of the changes to the FENZ requirements and the changes in the hall management structure. These conversations have generally been positive and clarified some misunderstanding around Council process.
44. The Waikaia mowing contract became effective on 1 July 2021 however the contractor (Waikaia Progress League) have yet to meet their requirements to become an approved contractor. They were issued the contract in January 2021 so have had seven months to meet these requirements.
45. The Otautau gardening contract is yet to be finalised. Staff have been working with the incumbent contractor to finalise the contract. This will require an unbudgeted expenditure report as the quoted price from the contractor exceeds the budget that was set in the LTP.
46. The Tuatapere gardening contract is yet to be finalised. Staff have been working with the incumbent contractor however they are struggling to meet the traffic management requirements to bring them up to an approved primary contractor with Council.
47. The gardening contracts in Ohai and Edendale/Wyndham have been picked up by the work scheme team.
48. The Northern Community Board is looking at rationalising their gardens before entering into a new contract.

Strategic transport

National Land Transport Plan

49. The National Land Transport Programme must be adopted by Waka Kotahi NZ Transport Authority by 1 September 2021 to give effect to the government policy on Land Transport for the next three years. This will see the confirmation of budgets for Council of Waka Kotahi NZ Transport Authority funded activities.
50. While Council has received indicative funding for the maintenance and renewals' programme, no indication of funding has been provided in relation to the low-cost low risk funding category. This funding category covers the bulk of Council safety related projects.

District wide roading programme

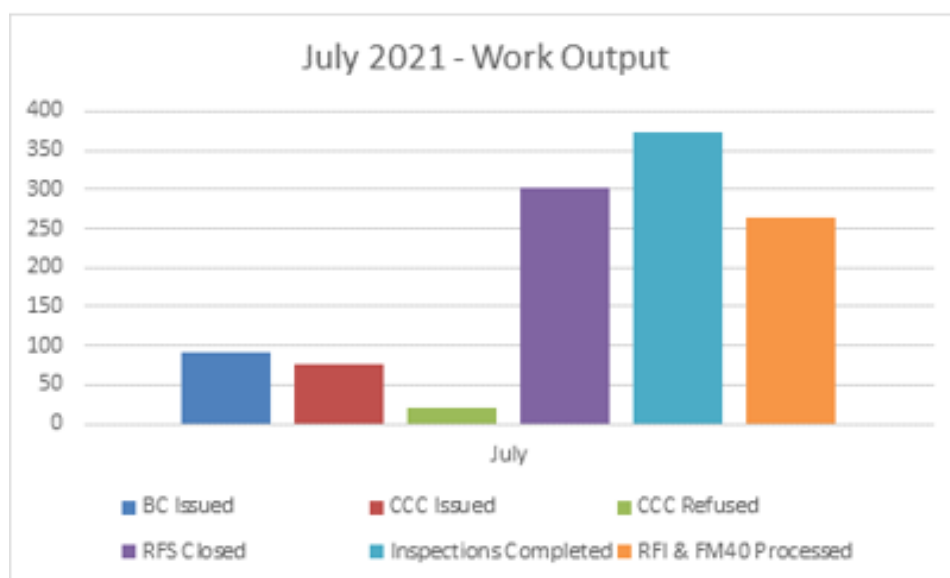
51. As previously reported a condition of funding from Waka Kotahi NZ Transport Authority for bridges' funding was that a Present Value End of Life Analysis (effectively a mini business case) has to be approved for each bridge. These were sent to Waka Kotahi NZ Transport Authority for their official approval. Waka Kotahi were very responsive to these resulting in a quick turnaround which has allowed staff to continue with procurement requirements.

52. The first of the road pavement rehabilitation packages is out to tender. This is for a section of road on Riversdale Waikaia Road.
53. The remainder of the package, have either had a design review completed or are in the process of having design and tender document reviews being completed with the plan to have these all out to market by the end of August and early September.
54. Meetings have been held with both resurfacing contractors to finalise individual treatment options for the district wide resurfacing (reseal) programme. The resurfacing programme starts on 1 October and runs through until 30 March.
55. Historically the bulk of New Zealand's bitumen has come from the Marsden Point refinery. This is in the process of closing down which may over the shorter term have an impact on bitumen supply. The facility however could act as a bitumen import terminal should there be demand however this is yet to be determined
56. At present no concerns have been raised by our resurfacing contractors regarding supply constraints or issues.

Environmental Services

Building

57. The team have achieved 99% compliance to statutory timeframes for both building consents and code compliance certificate decisions during the month of July 2021.
58. Council continue to receive a high volume of consents with 97 consents received during July 2021. 124 building consents are currently being processed by Council (56 of those waiting for further information). Currently, an average 74% of consents received by Council require further information prior to being issued.
59. Inspection volumes remain high with 372 inspections completed in July at a pass rate of 53%.
60. There are a couple of vacancies in the department which are currently being advertised.



July 2021 – Building Consents Received

Primary Property Hk Ey → Property Ward	Count	Sum of Application Val...
Mararoa Waimea	26	NZ\$3,010,623.00
Oreti	28	NZ\$3,635,800.00
Stewart Island Rakiura	2	NZ\$426,000.00
Waiau Aparima	25	NZ\$671,650.00
Waihopai Toetoe	15	NZ\$1,326,000.00

Environmental health

61. There are three alcohol/food businesses that require some SDC staff intervention to meet standards. As always, we aim to achieve this through voluntary compliance as opposed to enforcement measures.
62. The hearing for the proposed bottle store in Riverton was held, the District Licensing Committee refused the application.
63. Both DOC Invercargill and DOC Te Anau advise that no funding is available this year for freedom camping shared services in Te Anau and the Catlins. Freedom camping services will be offered in these two areas again, though limited. Staff are determining the budget available internally for this; and two SDC vehicles have been retained for use.

Animal control

64. The next step in the dog registration process is the dog control officers following up on those dog owners that have not re-registered their dogs. As at 17 August around 1,000 dogs remain unregistered. All are subject to the late penalty.

Resource management

Resource consents

65. The volume and complexity of resource consent applications received remains high over the first six months of the calendar year.
66. Two applications have been publicly notified and are out for submissions. New applications seeking limited notification are have also been received.
67. It's anticipated that the volume and complexity of consent will continue over the next six months.

Environmental Policy

68. Work is continuing on the review of the landscapes chapter of the Operative Southland District Plan 2018. It's anticipated that this work will continue into the new year when the plan change will be notified.
69. The District Plan effectiveness report has been completed and was presented to the Regulatory and Consents Committee on 14 June. It made a number of recommendations to better improve the performance of the District Plan. Scoping work is underway to identify the priorities of any

other District Plan changes needed to ensure that the plan maintains being effective and compliant with legislation.

Legislative reforms

70. Council made a submission on the Exposure Draft for the Natural and Built Environments Act in this reporting period. This is one of the three pieces of legislation proposed to replace the RMA. Council was also part of the joint Otago Southland submission which reflected wider issues across the two regions.
71. The proposed act is significantly different to the Resource Management Act and will mean wide-ranging changes to environmental management.

Democracy and Community

Community leadership

Welcoming Communities

72. Southland District Council partnered with Invercargill City Council, Gore District Council and Southern REAP to lodge a funding application for a pilot-extension to Southern REAP's "drive my life" programme that specifically focuses on supporting Southland's newcomers to obtain their learners, restricted, and full driving licenses.
73. The funding application was submitted to the "Ethnic Communities Development Fund" and we recently received confirmation that Southern Reap Incorporated was successful in securing a grant of \$15,000 as the request aligned with the development fund's priorities and funding criteria. The Ministry for Ethnic Communities was not able to fund all of the applications received in this funding round.
74. The Welcoming Communities conference, due to be held in Wellington 26/27 August has been cancelled and is expected to be rescheduled for later in the year.

Stewart Island/Rakiura helipad

75. Staff met recently with the Stewart Island Medical Committee and Future Rakiura who are leading the emergency helipad project for the island. Staff from the community leadership team, resource management and property outlined requirements for the next stage of the project.

Environment challenges workshop

76. In May, Environment Southland hosted a workshop on the significant environmental challenges facing Southland including freshwater quality, climate change impacts and biodiversity. It was recognised that to achieve long-term environmental outcomes there was a need to build environmental, economic, cultural and social frameworks for a sustainable future.
77. In addition, the change required was simply too big for any one agency to achieve alone and will require strong regional and national partnerships with a long-term vision.
78. A second workshop took place in mid-August and staff from the community leadership team attended, along with other stakeholders. This workshop looked at the draft vision statements and theme and developed ideas/projects to achieve the vision.
79. A further hui is planned for 5 October.

Policy and strategy

Bylaw and policy work

80. Staff in the strategy and policy team are in the early stages reviewing a number of documents. These include:
- The Open Spaces Strategy and Reserves Management Policy.
 - The Stewart Island/Rakiura Visitor Levy Bylaw and Policy –
 - The Delegations Manual – staff have begun reviewing the manual and identifying possible changes
 - Alcohol Control Bylaw - it is intended that pre-consultation with stakeholders will take place in August
 - Smoke Free Open Spaces Policy – it is intended that pre-consultation with stakeholders will take place before the end of this year.
 - Protected Disclosure policy
 - Contract Management Policy
 - Feedback Policy.
81. Council's Asset Management Policy was adopted by ELT on 6 July, and the new policy is now in effect. Staff will present the policy to Council for its information in August 2021. The Fraud Policy was adopted by Council on 23 June and is available to view on Council's website. The leadership team adopted the revised Sensitive Expenditure Policy in August, completing the review of this policy.

Corporate risks

82. Following annual review by ELT, on 23 June 2021, Council adopted the revised top strategic risks which will form the quarterly risk register going forwards. Risk management reporting has begun for the September 2021 quarter. Staff and ELT are currently updating the risk register and the quarterly reports will be presented to the Finance and Assurance Committee and Council when they meet later in the year.

Long Term Plan

83. Following Waka Kotahi NZ Transport Agency's announcement that Council would not receive full amount of funding requested, staff were required to make amendments to the proposed roading works programme as part of the final version of the Long-Term Plan document. On 29 June 2021, Council adopted the Long-Term Plan 2021-2031. The LTP sets out Council's plan for the next 10 years, how this contributes to the strategic direction, the costs and how they will be paid for, and how we will measure our performance as an organisation. The LTP is our contract with our community for the services that we will deliver. The LTP is available on Council's website to view or download, and printed copies of the LTP are available in area offices.

Annual Report

84. Work on the development of the 2020/2021 Annual Report has now began. Staff are working through the year end budget process and the key performance indicator results. Staff are formulating the key highlights, projects and budgets for the year with the Annual Report on schedule to be completed by the end of October 2021.

Interim performance report

85. The final interim performance report period ends 30 June. The results of this will then go into the Annual Report 2020/2021.

Governance and democracy

Elected Members Remuneration and Reimbursement Policy

86. On 23 June Council adopted the Elected Members' Remuneration and Reimbursement Policy. The policy came into effect on 1 July 2021 and is available on Council's website.

Knowledge management

87. LIM numbers remained steady for the month of June with 42 LIM's being lodged. We kept our 6 day average turnaround which is promising. In June we processed 167 property file requests which averages 8 per day. LIM's and Property files were moved to E-pathway this month which has reduced some of the manual processing required and now allows for improved reporting.
88. Application integration between Pathway and Records Manager has started for licensing modules. The upgrade for Records Manager to Content Manager is expected to start in October, testing has been completed.
89. Other work in the team includes the start of our retention and disposal review of records at archives. We've also planned an open day in September for staff to visit the Bowmont street archives to understand the process and storage requirements for records and this has had great interest, we're hoping this will reinforce the training already implemented across the organisation.
90. Other work in the team includes the start of our retention and disposal review of records at archives. We've also planned an open day in September for staff to visit the Bowmont street archives to understand the process and storage requirements for records and this has had great interest, we're hoping this will reinforce the training already implemented across the organisation.

Customer support

91. We received 4051 calls during the month of July, with an average wait time of 23 seconds.
92. Dog registration season has drawn to a close and very pleasingly, the changes we had made to the dog registration process during the year have worked extremely well. As part of the new process an RFS was created for animal changes which allowed flexibility with who and when the changes were made, allowing us to spread the workload across the district when necessary. So rather than individuals struggling under a large workload, we were able to manage it as a team which resulted in a significant reduction in stress during this time. It has also allowed us to gather data on the volume of work, which had not been available in the past.
93. From 01 June we have completed RFS's 1991 customers and completed 2688 animal changes. This does not include the dog renewals. Having the ability to easily utilise resource across the

Customer Support team throughout the district worked well and we will definitely replicate this model moving forward.

94. We moved across the hall to our new home. Everyone has settled in extremely well and we are really enjoying our new space.

Recommendation

That Council:

- a) **Receives the report titled “Management report” dated 8 September 2021.**

Attachments

There are no attachments for this report.

Exclusion of the public: Local Government Official Information and Meetings Act 1987

Recommendation

That the public be excluded from the following part(s) of the proceedings of this meeting.

C10.1 Insurance and Project Management Internal Audit - unbudgeted expenditure

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

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
Insurance and Project Management Internal Audit - unbudgeted expenditure	s7(2)(h) - the withholding of the information is necessary to enable the local authority to carry out, without prejudice or disadvantage, commercial activities. Insurance is commercially sensitive.	That the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists.