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LGOIMA

When releasing responses to previous LGOIMA requests, names and contact details of individual requestors will be withheld to protect their privacy.

Information requested by the media, lobby groups, public sector organisations and MPs will always be published, while information specific to an individual or their property will not generally be published.

Request from:	Private Individual
Information requested:	Tonkin and Taylor Three Waters Service Delivery Review
Response by:	Simon Bastion, Chief Executive

20 September 2021

Private Individual

Via Email:

Dear Private individual

Official information request for the Tokin and Taylor Three Waters Service Delivery Review

I refer to your official information request dated 15 September 2021 for the Tonkin and Taylor Three Water Service Delivery Review.

The information you have requested is enclosed. We are assuming your request refers to the work Tonkin & Taylor completed on behalf of the West Coast councils in April 2021. Tonkin & Taylor are currently undertaking further work for council on the 3 Waters Reform which will be table at the upcoming council meeting.

There is no charge in supplying this information to you.

Council has adopted a Proactive Release Policy and accordingly may publish LGOIMA responses on the Council Website at https://www.westlanddc.govt.nz/lgoima-responses. The collection and use of personal information by the Westland District Council is regulated by the Privacy Act 2020. Westland District Council's Privacy Statement is available on our website here

If you wish to discuss this decision with us, please feel free to contact Mary-anne Bell, Senior Administration Officer at LGOIMA@westlanddc.govt.nz, 03 756 9091.

Sincerely,

Simon Bastion | Chief Executive

SB/MB

REPORT

Tonkin+Taylor

Three Waters Service Delivery Review

Prepared for
West Coast Councils
Prepared by
Tonkin & Taylor Ltd
Date
November 2020
Job Number
1011015.v1.0

Exceptional thinking together
www.tonkintaylor.co.nz

Document Control

Title: Three Waters Service Delivery Review					
Date	**Version**	**Description**	**Prepared by:**	**Reviewed by:**	**Authorised by:**
Nov 20	0.5	Draft for internal review	CHP		
Nov	1.0	Draft for Council review	CHP		
Dec	2.0	Final	CHP	CR	CR

Distribution:

West Coast Councils	1 electronic copy
Tonkin & Taylor Ltd (FILE)	1 electronic copy

Table of contents

1 Introduction

1.1 Background

The Government is reviewing how to improve the regulation and supply arrangements of drinking water, wastewater and stormwater (Three Waters) to better support New Zealand's prosperity, health, safety and environment. Most of the West Coast Three Waters assets and services, but not all, are owned and delivered by the local and regional councils. Aspects of the changes to be implemented through the review that affect West Coast Councils (the Councils) are:

- New drinking water regulations including risk management for drinking water sources;
- Targeting regulation of wastewater under the RMA;
- Best practice operation of wastewater and stormwater systems;
- Institutional arrangements; and
- New service delivery options.

T+T presented on the issues and opportunities the Government Three Waters review might have on the West Coast Councils in May 2019. Following the presentation we recommended that the councils be prepared to influence this review based on a better understanding of their own assets, opportunities, gaps and the challenges in meeting future requirements. The Councils asked T+T to provide support by undertaking a stocktake of existing assets on the West Coast, identifying opportunities and issues, and to design a proposed framework which would meet central Government objectives but reflects the West Coast context for Three Waters delivery.

Since the commencement of this project the Government has provided clearer direction on expectations for collaboration on service delivery. This has included providing funding for 2020/21 subject to councils agreeing to work on collaborative serviced delivery arrangements.

The Canterbury Mayoral Forum has had an initial discussion regarding collaboration across Canterbury and also with West Coast and 'top of the south' councils. Canterbury Councils are commencing an evaluation of service delivery options for Canterbury only in late 2020. This work is supported by funding from the Department of Internal Affairs (DIA, Three Waters Reform programme).

In other parts of New Zealand, the major two major regional delivery entities have seen an increase in territory and council participants. Watercare Services Limited is providing services to Waikato District (on a contracted basis). Wellington Water Limited now also provides services to the Wairarapa with South Wairarapa District Council joining as an owner.

Extensive formal and informal work on service delivery options has been completed or commenced. Examples include:

- Informal discussions in Northland, Waikato, Bay of Plenty.
- A formal Three Waters Service Delivery Review completed by Hawkes Bay Councils with funding support from the DIA.
- Stocktake and preliminary service delivery analysis completed for councils in the Manawatu - Wanganui region (Horizons) led by Palmerston North City Council.
- Preliminary discussions and funding application to the DIA for a Three Waters service delivery Indicative Business Case for South Canterbury Councils - now incorporated into the Canterbury region project.
- Preliminary discussions and a successful funding application to the DIA for a Three Waters service delivery Indicative Business Case for Otago and Southland region Councils - scheduled to start early 2021.

Where information is published or otherwise publicly available from these activities it has informed the preparation of this report.

1.2 Project Scope

The project involves three, interrelated tasks:

1 Completing a stocktake of the Three Waters assets and their performance, focusing primarily on water and wastewater treatment facilities but also consider potable water reticulation, wastewater collection and stormwater networks.

2 Comparing existing performance with assumed future requirements for water supply and wastewater discharge (arising from the 3-Waters Review[1]).

3 Completing a Service Delivery Review, consistent with the requirements of Section 17A of the Local Government Act 2002, to identify one or more preferred options for the Councils to effectively meet future delivery requirements.

This report is structured as follows:

- Section 2 provides a summary of the outcomes of the stocktake
- Section 3 outlines key challenges for Three Waters service delivery on the West Coast
- Section 4 presents a Service Delivery Review, loosely based on the Section 17A Service Delivery Review framework.
- Section 5 provides brief comment on next steps for the West Coast Councils.
- Appendix A provides more detail from the stocktake
- Appendix B outlines examples of the service delivery options considered.

[1] Government have signalled a range of new or changed requirements covering source protection, disinfection and receiving water standards.

2 Stocktake

2.1 Stocktake approach

To complete a stocktake of assets we have reviewed existing information (provided by each Council) on assets and their performance across the West Coast to provide an overall picture of the current situation. We have reviewed:

- Asset and Activity Management Plans (AMP);
  - Current assets
  - Maintenance and renewal costs
  - New capital projects proposed
  - Funding
- Asset Valuation Reports;
- Water Safety Plans (WSP's);
- Monitoring and Reporting (Resource Consents' reporting, activity reporting to Councils); and
- Long Term Plans (funding allocated to Three Waters, cross-checked with AMPs).

The stocktake activities included:

- An initial document review;
- Discussion with asset managers from each of the three Councils to identify and/or clarify relevant data; and
- Making use of available data as noted above, i.e. no validating or updating of information provided by each Council.

The scope of the review comprised:

- Potable water supply (WS) – source protection, intakes, treatment, reticulation and consents.
- Wastewater (WW) – network, treatment plants, discharge/outfall infrastructure and consents.
- Stormwater (SW) – network, discharge infrastructure and approvals (consents, permitted activities).

Appendix A presents a range of the information gathered through the review. A summary matrix of existing assets aggregated to a scheme level is provided in Appendix A7.1. Each scheme is (where possible) reported upon separately for the pipe network and the non-infrastructure assets including sources of supply, pump stations, treatment and discharge facilities. This includes (where available):

- Scheme location;
- Brief asset background;
- Residual asset life;
- Replacement cost;
- Depreciated replacement cost; and
- Current operating standard. This is reported separately for the reticulation network and non-infrastructure assets.

2.2 Stocktake - themes

Table 2.1 presents themes from the stocktake data and discussions.

Table 2.1: Stocktake - preliminary themes

Theme	Buller	Grey	Westland
Renewals	Prioritising water supply particularly main to Westport	Predominantly in WS and SW	Based on hotspots and age with known condition where available. 1970s AC big issue
Next big new capital project	Water main renewal into Westport – aim to reduce high leakage levels, may exacerbate pressure issues in network	Water Reservoirs	Hokitika WWTP – at end of life pressure to decommission ponds, most cost-efficient solution to work with industry discharge e.g. Westland milk or abattoir
Procurement	CCO Westreef for treatment & O&M. Cost plus contract, renewed beginning 2019 for 5 years	Paul Smith Earthmoving for treatment & O&M. have min skilled workforce in contract	CCO Westroads for treatment & O&M. Contract up for renewal, old contract outdated & restrictive, hoping for more competition.
Internal staffing	New asset mgmt. and delivery teams, not at full strength - recruiting for Project delivery	Not at full strength – recent engineer turnover No dedicated Asset management role	Not at full strength - Recruiting for Asset manager
Iwi Relationship	Positive interactions and participation with council decision making		
Asset Data	Asset Finder and GIS webmap. Have used historic as-builts etc to get good physical asset data. No proactive condition assessment (review surrounding assets with current works)	Asset Finder and GIS webmap. Good condition and asset data for WW & SW. Pre 80s assets have poorer data quality.	Asset Finder and GIS webmap. Medium confidence in data Lower data quality in SW and WS, higher in WW. Starting SW CCTV. No proactive condition assessment
Asset Management	Mostly reactive but new asset team improving this. Have self-tracked non-financial performance targets.	WS, SW renewals are reactive, more proactive on WW. Targeting cast iron and old leaky pipes	Highly reactive planning. Low use of asset criticality
Growth	Steady but minimal growth. Don't collect developer contributions. No new connection fee, just reserves.	Current nil growth, future growth rural or holiday homes; minimal developer contributions collected	No Growth projects planned; minimal developer contributions collected
Funding	Well below loan cap - Emphasis on user pays, healthy depreciation reserves	At or near loan cap – high levels of historic deferred renewals	At or near loan cap – high reliance on subsidised funding e.g. Tourism Infrastructure Fund
Aspirational	Add and improve the smaller schemes	Increase level of service for SW and secondary water supply source for resilience	Increase treatment skill and control

3 Summary of challenges for 3-waters infrastructure

In addition to gathering information on assets we discussed challenges for Three Waters service delivery with each of the Councils staff and managers. Key challenges identified through the discussions are noted (in priority order) in Table 3.1.

Table 3.1: Summary of challenges for Three Waters infrastructure

Challenge	Buller	Grey	Westland
1	Affordability – high emphasis on user pays, low level of subsidies	Affordability – limited loan funding available, reliance on subsidies	Affordability – limited loan funding available, reliance on subsidies
2	Labour resources	Water usage and leakage in network	Labour resources
3	Age and non-compliance of small rural water supply schemes	Condition and priority for the stormwater network	Remoteness of infrastructure
4	Focus on Westport	Natural hazards	Natural hazards
5	Natural hazards	Labour resources	Community expectations

Key points to note include:

- Affordability is the highest priority issue for all three Councils. In addition to a low rating base contributing issues include:
  - Limits on loan funding
  - Reliance on (uncertain) access to subsidies e.g. Tourism Infrastructure Fund
  - A broader Council focus on user pays limiting what can be achieved in some communities.
- Access to labour resources (contractors) was also noted by all Councils with Buller and Westland noting this as a high priority.
- Natural hazards were also noted by all three Councils.

4 Service Delivery Review

4.1 Current situation

A range of issues for Three Waters service delivery were identified through the stocktake, performance assessment and in discussion with Council staff. These are discussed below.

Access to funding

There have been challenges accessing adequate funding to undertake maintenance, asset renewals and new capital investments for Three Waters infrastructure across the West Coast. This has a range of underlying contributing factors including:

- Council funding ceiling —— either a Council approaching real funding ceilings set by the Local Government Funding Authority or ceiling set by Council's own funding policy.
- Where a Council's policy stipulates that asset beneficiaries will fund the full cost of the asset ability to pay has been a consideration. For example, significant upgrades to water or wastewater systems for small communities are difficult to fund with a small number of contributing rate payers.
- Where costs are shared across a larger group of ratepayers there can be a perception that smaller communities are subsidised by larger ones leading to debates about equity.
- Without clear requirements for level of service or performance Councils may need to convince communities that investment is required. Where there is significant community opposition investment may be delayed or stopped completely.

Capability

The availability of suitably qualified and experienced staff is a constraint on delivery of asset maintenance, renewals and new capital investment. This relates to both professional staff (design, asset management, contract management) and construction (contract management, plant operators, experienced labour).

Current contractors West Roads (Westland District Council CCO), Paul Smith Earthmoving 2002 Ltd (for Grey District) and WestReef (Buller District Council CCO) provide construction resources for maintenance, renewals and some capital projects. Specialist contractors from outside the West Coast also deliver some projects but a lack of scale and the cost of mobilising to the West Coast constrain available resources.

Private supplies

New water supply requirements will apply to water supplies for more than one property or used communally. For many private supplies regulatory requirements will be difficult to meet and there is a risk that Councils will need to provide support or even take control of some private water supplies on the West Coast.

Escalating costs

The cost of maintaining existing water supply and wastewater treatment systems is increasing with contributors including:

- Escalating contractor costs (fuel, materials, wages).
- Increasing impact of natural hazards.
- Changing community expectations and regulatory requirements regarding:
    - Water safety (for water supply).
    - Receiving water quality/protection (for wastewater and stormwater).

Government shas signalled a move to more active regulation of both water supply and wastewater management. Preliminary work completed as part of the reform process has identified significant investment required to upgrade, maintain and operate water supply and wastewater infrastructure across all of New Zealand.

Community expectations

Community expectations are increasingly mis-matched to the ability of existing systems to deliver. Examples include:

- Increasing focus on, and concern about, drinking water quality and wastewater discharges.
- Resistance to disinfection of drinking water supplies.
- Where upgrades are required due to regulation and/or community expectations the cost is often a barrier, particularly where system costs are levied directly on the beneficiary community.

Asset Management

The Councils all have Asset Management systems in place including an evaluation of maintenance, renewal and capital required to deliver the defined level of service. Funding to achieve the level of service can be difficult to secure in the context of competing funding priorities.

Detailed asset information is available in some areas, normally for newer assets. For older assets information is less complete, particularly with respect to current condition.

4.2 Defining the problem

There is a wide range of challenges for Councils on the West Coast in managing Three Waters assets and planning for the future. Reflecting on the current situation as outlined in Section 2 and Section 4.1, the following issues were noted in discussion with Council staff. These are presented diagrammatically in Figure 4.1.

- There is a disconnect between the Level of Service (LoS) that is required by legislation and/or desired by communities and the Councils ability to fund that LoS.
- In some cases, it is unrealistic for direct beneficiaries to fund LoS improvements for small schemes.
- Delivering consistent levels of service and improved performance needs the broader community (local, regional, national) to be willing to fund.
- Maintenance and renewals of assets is not well funded resulting in poor performance and emergency repairs. Reactive maintenance can be a costly way of managing the asset portfolio.
- It is difficult to attract and retain the right people
  - Hard to manage design and construction activities
  - Contractors can't provide the right skills
- It is difficult to find staff who can respond to both the technical and the community requirements of incidents, for example wastewater overflows or mains breaks.
- Scale makes procurement challenging (attracting qualified tenders)
- The cost of doing design and construction work has increased, even when adjusted for the construction price index (CPI) or equivalent.
- Standards for water supply and wastewater treatment are becoming increasing stringent:
  - Moving to a nationally consistent approach (Taumata Arowai, National Environmental Standards).

- Some activities have historically been under-regulated in the region due toto issues not necessarily being well understood
- Aging assets make it difficult to maintain performance e.g. cross connections, infiltration.
- There has been growth in some areas with infrastructure maintenance, renewals and capital investment not keeping up.

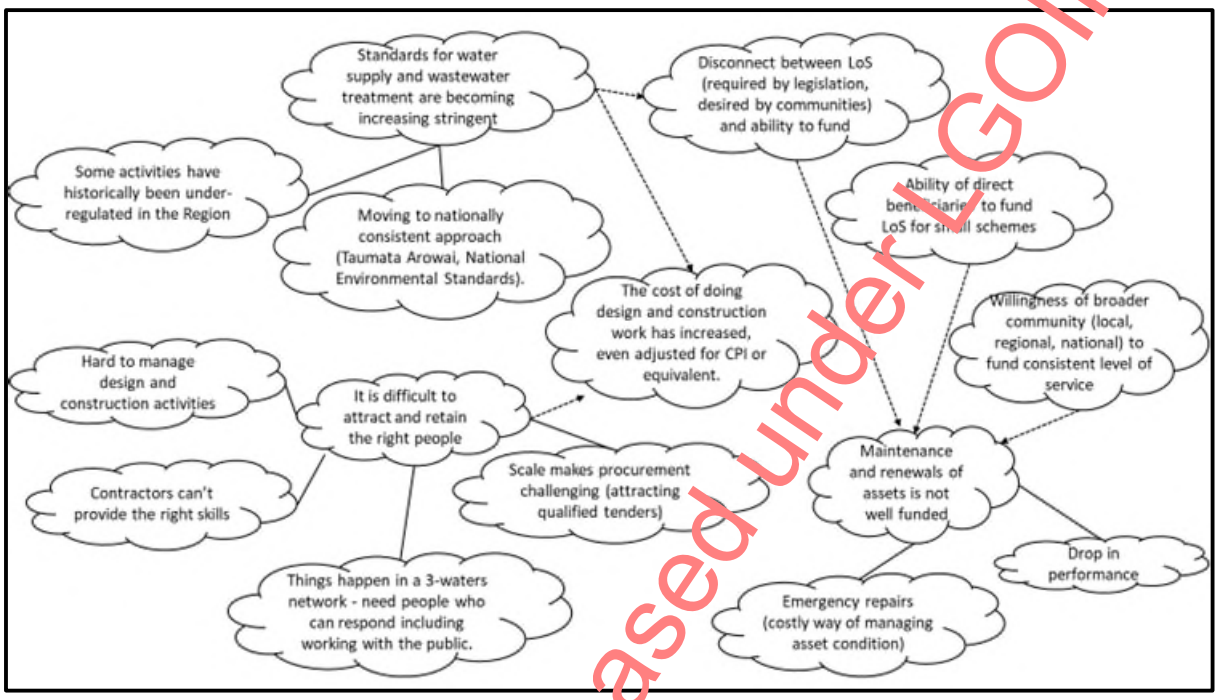

Figure 4.1: Key challenges and linkages

There are also potential benefits that could be realised if changes are made to the way that services are managed and delivered. Examples include:

- Service level increases
- Cost reduction
- Address key challenges (funding, capability, standards)

4.3 Objectives for Three Waters service delivery

The discussion in Section 4.2 provides a basis for developing objectives for a future approach to Three Waters service delivery on the West Coast. Ideally the preferred approach will address the key underlying problems (the cause rather than the symptom) to achieve a better overall outcome. As noted in Section 4.2, it is anticipated that addressing the identified problems will deliver benefits for Councils and their communities.

Objectives for future delivery of Three Waters services need to be clear, should address the challenges identified and support delivery of the desired benefits. We developed an initial view on potential guiding objectives based on our analysis of the current state and understanding of benefits each Council are seeking to provide. We then discussed these objectives in an initial workshop (June 2020 by Zoom).

From that discussion, a series of objectives were developed. It was considered that a future state for the delivery of Three Waters services should achieve or actively support the objectives below. These objectives provide a basis for assessing the 'effectiveness' of options.

- Engaged community, well informed, trust the professionals/Council
- Partnership with iwi (economic and co-guardianship)
- Sustainable funding
- Meeting performance standards
- Affordable - operational, renewals, new capital, fair sharing of costs, linked to LoS, for Council and the ratepayer
- Informed by technical expertise

For the purposes of this assessment, options are evaluated against each objective with a four point scoring approach as outlined in Table 4.1. The options, commentary and scoring for objectives are set out in Section 4.4.

Table 4.1: Option - objectives scoring approach

x Does not support this objective	+ May support this objective	++ Broadly supports this objective	+++ Strongly supports this objective

4.4 Options for Three Waters service delivery

4.4.1 Options development and characteristics

Section 17A of the Local Government Act provides a list of options for local government service delivery. This can be read in conjunction with examples of Three Waters service delivery approaches across New Zealand and elsewhere.

The service delivery options include:

- Status Quo – individual council delivery with ad hoc collaboration
- Joint Services (multiple variants)
- CCO/CCTO (individual or joint)[2]
- Work with councils outside the West Coast Region.

Examples of collaboration on Three Waters service delivery are noted below. Further detail is provided in Appendix B.

- Regional shared services - examples include Nelson Regional Sewerage Business Unit (Nelson/Tasman) and Northland Transportation Alliance (NZTA, NRC, Whangarei, Far North and Kaipara District Councils).
- CCO (managing assets on behalf of Councils) - for example Wellington Water Limited (Wellington City, Lower Hutt, Porirua, Upper Hutt, South Wairarapa).
- CCO (owning assets on behalf of Councils) - for example Watercare Services Limited (Auckland).

[2] Council Controlled Organisations are accountable to councils, who determine the objectives for each of these organisations and monitor their performance. The councils are accountable to ratepayers and residents for the performance of the CCO.

- CCO (operating and maintain assets as a 'contractor') - examples include Watercare for Waikato District, Citycare, WestReef, WestRoads, Nelmac and Innovative Waste Kaikoura.

Options that have been considered for the West Coast are outlined in Table 4.2 with reference to key features and examples. Further detail on models considered is provided in Appendix A1 and the following sections.

With respect to scale, there could be value in examining an infrastructure planning CCO with responsibility for all infrastructure spend in the West Coast Region. This could include Three Waters, transport, solid waste and river protection. This would provide additional scale but will still be significantly smaller than a super regional, Three Waters focused CCO.

Table 4.2: Options for service delivery on the West Coast

Option	Example	Key features	Section
Status quo	West Coast, Canterbury	Direct link between Council, service provider and community.	4.4.2
Regional shared services	Nelson Regional Sewerage Business Unit Northland Transportation Alliance	Service level agreement Council staff/resources in 'virtual' organisation Retains link to community.	4.4.3
Regional asset managing CCO	Wellington Water Limited	Statement of Intent CCO staff/resources	4.4.4
Regional asset owning CCO	Watercare Services Limited	Statement of Intent CCO staff/resources/assets Direct billing of customers	4.4.5
'Super'-regional CCO	Scottish Water	Statement of Intent CCO staff/resources	4.4.6

Each option has different costs and benefits. It is useful to consider how different options will deliver the different components of service delivery. These include:

- Governance and oversight
- Strategy and planning
- Funding
- AMP and capital programme
- Customer interface
- Plant operation
- Network maintenance
- Capex/renewal delivery

Table 4.3 illustrates how these activities could be delivered under the models identified. In reality, once some form of collaborative structure is established there is often a move to shift the majority of functions into the new entity.

Table 4.3: Service delivery components linked to service delivery options

	Status Quo	Shared Services	Asset Managing CCO	Asset owning CCO	Super-regional CCO
Governance and oversight	Individual Council	Shared Council/ new entity	Shared Council/ new entity	Shared Council/ new entity	Shared Council/ new entity
Strategy and planning	Individual Council	Regional coordination	Shared Council/ new entity	New entity operation	New entity operation
Funding/Billing	Individual Council	Individual Council	Individual Council	Current / New	Current / New
AMP and capex programme	Individual Council	Regional coordination	New entity operation	New entity operation	New entity operation
Customer interface	Individual Council	Individual Council	Shared / New	Shared / New	Shared / New
Plant operation	Individual Council	Individual Council	New entity operation	New entity operation	New entity operation
Network maintenance	In/out sourced	In/out sourced	New entity operation	New entity operation	New entity operation
Capex/renewal delivery	In/out sourced	In/out sourced	New entity operation	New entity operation	New entity operation

Delivered by	Individual Council	In/out sourced	Regional coordination	New entity operation	Shared Council/ new entity

4.4.2 Status Quo

In this scenario the individual Councils retain responsibility for all aspects of service delivery and asset ownership, and Three Waters services staff would remain employed by the Councils.

Table 4.4: Status quo evaluation

Engaged community	++	Communities have relatively good access to the professional and technical staff managing Three Waters within their communities. Local decision making (by territorial authority) means the community have access to decision makers.
Partnership with iwi	+	Iwi partnership varies by Council and is still in development.
Sustainable funding	x	Individual Councils do not have the scale to access alternative forms of funding and communities are unable to fund (through general rates, target rates or user charges) the maintenance, renewals and upgrades required.
Meeting performance standards	x	Existing systems do not always meet current performance standards and are likely to face challenges meeting future standards.
Affordable	++	The current approach is limited by available funding i.e. it is by definition affordable to communities.

		Where the level of service changes, for example in response to new requirements imposed by Taumata Arowai, costs will rise.
Technical expertise	x	While each Council has good technical expertise, it remains difficult to attract and retain good professional and trade staff (into contractors/CCO). With most activities being relatively small in scale it can also be challenging to attract experienced contractors to deliver capital works. This is mitigated in Westland and Buller by using a CCO to deliver physical works.

x Does not support this objective	+ May support this objective	++ Broadly supports this objective	+++ Strongly supports this objective

In summary, the Status Quo provides good opportunities for the community to engage with those tasked with planning and managing Three Waters service delivery and is delivered within existing budgets. Partnership with iwi is under development and has the potential to be a feature of local delivery.

Key challenges with the status quo include access to funding, affordability and the ability to attract and maintain the required technical expertise.

4.4.3 Regional Shared Services

A regional Shared Services Business Unit (SSBU) scenario would involve the following:

- Staff from each Council would be seconded in to a single group but continue to be employed by their respective Council.
- Assets would continue to be owned by individual Councils.
- The public would deal directly with Councils for Three Waters matters.
- The SSBU would have regional strategic oversight of asset management and infrastructure delivery and would plan and deliver all the capital and operational works for the region.
- Accountability for overall performance would remain with the Councils and the Councils would maintain their role as the interface with the community.

Table 4.5: Regional shared services evaluation

Engaged community	++	Communities have relatively good access to the professional and technical staff managing Three Waters within their communities. Local and regional decision making (by territorial authority) means the community have access to decision makers.
Partnership with iwi	+	Iwi partnership varies by Council and is still in development.
Sustainable funding	x	Funding remains with Councils, Councils combined do not have the scale to access alternative forms of funding and communities are unable to fund (through general rates, target rates or user charges) the maintenance, renewals and upgrades required.
Meeting performance standards	+	Combining technical expertise provides a basis for improved performance across the region.

Affordable	++	This approach is based on improving the effectiveness of current arrangements. Retaining existing employment arrangements and staff mean this approach can be configured to be delivered at a similar cost to the current approach. Where the level of service changes, for example in response to new requirements imposed by Taumata Arowai, costs will rise, combining resources will mitigate this cost increase to some degree.
Technical expertise	++	A SSBUSSBU will be a more attractive place to work for key professional staff. The combined resources will improve the availability of technical expertise required to maintain and invest in TWThree Waters service delivery across the region.

x Does not support this objective	+ May support this objective	++ Broadly supports this objective	+++ Strongly supports this objective

In summary, a regional shared services arrangement would to a large degree retain the community engagement and affordability benefits of the status quo. Combining the existing professional and technical resources from each Council into a single business unit would improve the situation with respect to technical expertise.

Key challenges for the shared services business unit include building a partnership with iwi (similar to the status quo) and accessing sustainable funding sources. Co-locating professional and technical specialists is likely to enable improved system performance but any gains will be limited by access to funding. In the context of the West Coast Region co-location may not be practical where staff are delivering services at the northern or southern extent of the region.

4.4.4 Asset Managing CCO

In an asset managing CCO scenario:

- Three Waters assets would be owned by each respective Council with Council accountable for their management.
- The CCO would employ its own staff and provide its own support services.
- The public would deal directly with the CCO for Three Waters matters.
- An asset managing CCO would have regional strategic responsibility for system management and asset management strategies and deliver all capital and operational works for the region.
- Strategies and plans would be approved by Councils and costs would be recovered from each Council based on the funding model chosen.
- The CCO would be overseen by a Board of Directors and would be accountable to a joint committee of the Councils.

This is the Wellington Water Model.

Table 4.6: Asset managing CCO evaluation

Engaged community	++	Because Councils retain control of assets and decisions will be made at a Council and Regional level, the community can remain engaged in Three Waters infrastructure decisions and management.

Partnership with iwi	+	An asset managing CCO can invest in developing partnership with iwi to provide governance across Three Waters at a regional level. There is potential for an operational partnership as well with iwi contributing professional and technical expertise within the CCO
Sustainable funding	+	Funding decisions remain with Councils. The Councils combined do not have the scale to access alternative forms of funding and communities are unable to fund (through general rates, targeted rates or user charges) the maintenance, renewals and upgrades required. A regional CCO may be in a position to raise debt funding for some activity although scale will remain a challenge.
Meeting performance standards	+	Combining technical expertise and key asset managing activity (maintenance, renewals) provides a basis for improved performance across the region. Access to funding and retaining long term decision making with Councils is likely to hamper progress on meeting current and future performance standards.
Affordable	+	Establishing and operating a new regional CCO will cost more money than the current approach. New costs include the overheads associated with the new organisation with a limited scale (it estimated that around 10 professional staff would be required). Technical staff would be likely to remain with operations contractors. Because Councils retain an active role in decision making some capability will need to be retained within each Council, risking duplication. Where the level of service changes, for example in response to new requirements imposed by Taumata Arowai, costs will rise, combining resources in a CCO will mitigate this cost increase to some degree.
Technical expertise	++	A regional asset owning CCO will be a more attractive place to work for key professional and technical staff. The combined resources will improve the availability of technical expertise required to maintain and invest in Three Waters service delivery across the region.

x Does not support this objective	+ May support this objective	++ Broadly supports this objective	+++ Strongly supports this objective

In summary, an asset managing CCO could, to a large degree, retain the community engagement of the status quo. Combining the existing professional resources from each Council into a single business unit would improve the situation with respect to technical expertise, similar in many ways to a shared services business unit.

Challenges that are mitigated compared to the status quo but still remain for the asset managing CCO include building a partnership with iwi (similar to the status quo but with potential to use the establishment of a new entity to create a step change in the partnership), accessing sustainable funding sources and affordability. Co-locating professional and technical specialists is likely to enable improved system performance but any gains will be limited by access to funding.

4.4.5 Asset Owning Council Controlled Organisation (CCO)

In an asset owning scenario:

- The CCO would own the Three Waters assets and would be responsible for the investment required for new infrastructure and for meeting standards. It would consolidate operational and infrastructure costs to develop economies of scale.

- The CCO would employ its own staff and provide its own support services.
- An Asset Owning CCO would have regional strategic responsibility for network management and asset management strategies and deliver all capital and operational works for the region. Costs would be recovered directly from customers.
- The public would deal directly with the CCO for Three Waters matters.
- The CCO would be overseen by a Board of Directors and would be accountable to a joint committee of the Councils.

This is the Watercare model.

Table 4.7: Asset owning CCO evaluation

Engaged community	++	While the CCO has control of assets, decisions will be shared with Councils at a Regional level. The community can remain engaged in Three Waters infrastructure decisions and management through direct engagement with the CCO.
Partnership with iwi	+	An asset owning CCO can invest in developing a partnership with iwi to provide governance across Three Waters at a regional level. There is the potential for an operational partnership as well, with iwi contributing professional and technical expertise within the CCO.
Sustainable funding	++	Funding decisions will be taken by the CCO in consultation with Councils. The new CCO will not have the scale to access alternative forms of funding and communities are unable to fund (through general rates, targeted rates or user charges) the maintenance, renewals and upgrades required. An asset owning regional CCO will be in a position to raise debt funding for some activity although owner Council debt levels may impose limits on this funding avenue.
Meeting performance standards	++	Combining technical expertise and key asset managing activity (maintenance, renewals) provides a basis for improved performance across the region. The ability to make and implement long term decisions on asset maintenance, renewals and capital investment will enable improvements in performance, subject to access to the required funding.
Affordable	+	Establishing and operating a new regional CCO will cost more money than the current approach. New costs include the overheads associated with the new organisation with limited scale (it is estimated to comprise around 10 professional staff, with technical staff likely to remain with operations contractors). Where the level of service changes, for example in response to new requirements imposed by Taumata Arowai, costs will rise, combining resources in a CCO will mitigate this cost increase to some degree.
Technical expertise	++	A regional asset owning CCO will be a more attractive place to work for key professional and technical staff. The combined resources will improve the availability of technical expertise required to maintain and invest in Three Waters service delivery across the region.

x Does not support this objective	+ May support this objective	++ Broadly supports this objective	+++ Strongly supports this objective

In summary, an asset owning CCO could, to a large degree, retain the community engagement of the status quo. Combining the existing professional and technical resources from each Council into a single business unit would improve the situation with respect to technical expertise, similar in many ways to a shared services business unit. Ownership of the assets opens the possibility of the CCO directly raising debt funding although this may be limited by owner Council debt levels. Co-locating professional specialists is likely to enable improved system performance but this will remain subject to available funding.

Challenges that are mitigated but remain for the asset managing CCO include building a partnership with iwi (similar to the status quo but with the potential to use the establishment of a new entity to create a step change in the partnership) and affordability.

4.4.6 Super regional CCO

This option considers the West Coast joining an existing CCO or creating a model that goes beyond West Coast. The intention is that by widening the area covered by the model there might be savings and efficiencies of scale., It is likely that the Head Office of the CCO would be located outside the West Coast... The model would operate in the same way as the Asset Managing or Asset Owning CCO as set out above.

Table 4.8: Super regional CCO evaluation

Engaged community	x	While the CCO has control of assets, decisions will be shared with Councils across multiple regions. This means decisions will take into account benefits for the West Coast and other areas, with all communities having a say. While the community can remain engaged in Three Waters infrastructure decisions and management through direct engagement with the CCO it is likely that a larger CCO will be headquartered outside of the West Coast
Partnership with iwi	x	A super regional CCO can invest in developing partnerships with iwi to provide governance across Three Waters service delivery. There is also the potential for an operational partnership with iwi contributing professional and technical expertise within the CCO. With a larger geography there is a risk that West Coast iwi would have limited ability to influence and participate in any partnership, with other voices having a stronger role.
Sustainable funding	+++	Funding decisions will be taken by the CCO in consultation with Councils. The new CCO would be designed to have the scale required to access alternative forms of funding to compliment conventional funding options (general rates, targeted rates or user charges) to fund the maintenance, renewals and upgrades required. An asset owning super regional CCO would be in a position to raise debt funding for some activity. Depending on the detailed structure, debt may be considered off-balance sheet for the owner Councils.
Meeting performance standards	++	Contributing technical expertise and key asset managing activity (maintenance, renewals) and having access to a larger pool of technical expertise from other regions provides a basis for improved performance across the region. The ability to make and implement long term decisions on asset maintenance, renewals and capital investment (if an asset owning CCO) and improved access to funding will enable improvements in performance.

Affordable	+	Establishing and operating a new super regional CCO will cost more money than the current approach. New costs include the overheads associated with the new organisation although this will be mitigated through economies of scale for a larger CCO. It is also likely that improved standard/levels of service will eventuate with associated increased costs. This is the experience for some smaller Councils joining shared services or CCO arrangements elsewhere[3].
Technical expertise	+++	A super regional CCO will be a more attractive place to work for key professional and technical staff. The combined resources will improve the availability of technical expertise required to maintain and invest in Three Waters service delivery including in the West Coast region. A larger CCO is more likely to be able to hold key professional technical expertise in-house and to build substantial organisational knowledge of key assets and services.

x Does not support this objective	+ May support this objective	++ Broadly supports this objective	+++ Strongly supports this objective

In summary, a super regional CCO could deliver benefits including access to a larger pool of professional and technical resources and the flow on impact on ability to meet performance standards. Ownership of the assets would open the possibility of the CCO directly raising debt funding although this may be limited by owner Council debt levels and funding allocation by area will need to be carefully considered.

Challenges for a super regional CCO are focussed on engagement with the community and partnership with iwi. In both cases there are risks that the likely shifting of headquarters outside of the West Coast and scale of the organisation will make it hard for West Coast stakeholder and partners to effectively engage. In common with the other CCO scenarios, affordability is likely to be an issue with new costs associated with the CCO establishment and operation and increasing levels of service.

4.5 Evaluation summary

4.5.1 General comment

Table 4.9 provides a summary of the evaluation of each of the options. A key insight from the evaluation is that no option is supports all of the objectives for Three Waters service delivery on the West Coast. In determining a preferred option or engaging with other regions and the national reform process, Councils need to decide which objectives are more important.

Table 4.9: Option evaluation summary

	Status Quo	Shared Services	Asset Managing CCO	Asset owning CCO	Super-regional CCO
Engaged community	++	++	++	++	x
Partnership with iwi	x	x	+	+	x
Sustainable funding	x	x	+	++	+++

[3] For example, Wellington Region shared IT Services, Wellington Water Limited.

	Status Quo	Shared Services	Asset Managing CCO	Asset owning CCO	Super-regional CCO
Meeting performance standards	x	+	+	++	+++
Affordable	++	++	+	+	+
Technical expertise	x	++	++	++	+++

x Does not support this objective	+ May support this objective	++ Broadly supports this objective	+++ Strongly supports this objective

The preferred option depends on the relative weight given to the objectives.

- If an **engaged community** is the most important objective, a local or regional solution will be preferred.
- **Partnership with iwi** requires further development in all scenarios but regional solutions have been evaluated as the best options for supporting this objective.
- **Sustainable funding** will remain a challenge until a CCO owns the assets and has sufficient scale to access a range of funding options or more funding is made available.
- **Meeting performance standards** requires technical expertise and access to funding, suggesting an asset owning and larger CCO is the preferred approach.
- Delivering **affordable** Three Waters services is in tension with achieving regulated performance standards.
- Securing **appropriate** technical expertise typically requires scale, i.e. shared services, regional CCO or super regional CCO.

In considering options for Three Waters service delivery a number of other matters were raised. They are noted here for completeness and to inform ongoing discussions.

- A CCO that manages all infrastructure across the West Coast is an option that could be considered to provide additional scale. A CCO that provides specialist Asset Management, Capital Programme Management and Contract Management across a range of infrastructure would have significant additional scale, mitigating some of the challenges with a CCO focussed on Three Waters only. This scenario could cover other Council infrastructure (waste, transport), key Council capital projects and potentially include other holders of civil infrastructure such as the West Coast Regional Council and the Department of Conservation.
- Council will need to establish and maintain Three Waters quality assurance and compliance role(s). This is unlikely to be located in a CCO or shared service organisation but may be a shared role across the three Councils.
- The focus of funding gaps analysis completed by the DIA[4] and potential solutions are on maintenance, renewals and capital investment to address system performance related to potable water quality and receiving environment impacts. Resilience is another challenge that will drive the management of existing assets and investment in new assets.

[4] Refer https://www.dia.govt.nz/Three-waters-review

- Uncertain regulatory requirements remain a risk for West Coast Councils, particularly for private or small community systems where locals have a significant influence in operational capital decisions. Examples include discharge standards and disinfection requirements.

4.5.2 Super regional CCO

The national reform programme has identified funding, system performance and access to the right expertise as key objectives. This is why the super regional CCO concept is being advocated. The assessment in this report supports the view that a super regional CCO would deliver well for those objectives. This would be at the expense of community engagement, partnership with local iwi and affordability.

With Central Government clearly prioritising funding, meeting performance standards and access to technical expertise it is likely that work will continue at a national and regional level on the development of super regional CCO proposals. For West Coast Councils this is most likely to be in partnership with Canterbury and/or the "top of the south" councils. There may also be an opportunity to join an Otago/Southland super regional entity.

If this is a potential outcome of the reform process then West Coast Councils should focus on opportunities to influence the design of any new entity. In particular, the design should address the areas that this evaluation has identified as posing challenges - community and iwi engagement and affordability.

The two regional CCO options provide some benefits but remain subject to Council funding restraints and affordability constraints.

4.5.3 Regional asset owning CCO

There is also merit in completing some additional work on the shape of a regional CCO given this delivers at a reasonable level against all objectives. In particular, considering whether a CCO covering all infrastructure would be of a scale to sufficiently improve access to funding and capability in asset management and infrastructure delivery.

5 Next steps

The landscape for Three Waters service delivery in New Zealand is changing rapidly with Government and multiple council groupings considering options. As noted previously, Government are prioritising funding, system performance and access to the right expertise as key objectives. Partnership with iwi is also important to local authorities and Government.

Key priorities for Councils on the West Coast including affordability (including access to funding), accessing the right technical expertise and maintaining engagement with the community and iwi.

There are two potential next steps for the Councils in considering options for Three Waters service delivery on the West Coast. Given the uncertainty around moves being taken by other councils, or groups of councils, progressing both activities in parallel is recommended.

1 **Complete further analysis and concept design of an asset owning CCO for the West Coast Region**

This should focus on developing a stronger iwi partnership and improving access to funding. Sustainable funding will enable performance standards to be met subject to securing the appropriate technical expertise (both professional and labour). If further work is completed in this area consideration could be given to a regional, asset owning CCO for all Council infrastructure with a view to increasing scale and spreading the overhead costs associated with a discrete CCO.

2 **Complete further analysis of the impact of a super regional CCO for the West Coast with a focus on achieving an engaged community, iwi partnership and affordability.**

This should focus on developing approaches to ensure local (and remote) communities can engage with a large, super regional CCO, considering how local and regional iwi can be effectively engage with a super regional CCO and options for addressing affordability concerns.

Canterbury councils are commencing (December 2020) an analysis of options for the delivery of Three Waters services at a regional level, with delivery of preliminary recommendations due in mid 2021. There are likely to be opportunities to engage with the Canterbury councils in early to mid 2021 regarding the potential for the West Coast Region to be part of a multi-council CCO scenario for the Canterbury Region.

Similarly, Otago / Southland councils are commencing an Indicative Business Case process considering service delivery options. There are likely to be opportunities to engage with the Otago / Southland councils in early to mid 2021 regarding the potential for the West Coast Region to be part of a multi-council CCO scenario comprising Otago, Southland and the West Coast Regions.

Tasman, Nelson and Marlborough have yet to take material steps to consider a regional service delivery structure. Tasman and Nelson already collaborate informally and have a Joint Sewerage Business Unit to manage the Nelson Regional Sewerage system. There is the potential to engage with the 'top of the south' councils regarding opportunities for collaboration to address the challenges and objectives discussed in this report.

6 Applicability

This report has been prepared for the exclusive use of our client West Coast Councils, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Tonkin & Taylor Ltd

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Appendix A: Stocktake and Performance Assessment

A1 Introduction

The Government is reviewing how to improve the regulation and supply arrangements of drinking water, wastewater and stormwater (Three Waters) to better support New Zealand's prosperity, health, safety and environment. Most of the West Coast Three Waters assets and services, but not all, are owned and delivered by the local and regional councils. Signals of future change from this review that affect West Coast Councils are:

- New drinking water regulations including risk management for drinking water sources.
- Targeting regulation of wastewater under the RMA.
- Best practice operation of wastewater and stormwater systems.
- Institutional arrangements.
- New service delivery options.

T+T presented on the issues and opportunities the Government Three Waters review might have for the West Coast Councils mid 2019. Following this presentation T+T was asked to support the Councils by undertaking a stocktake of existing assets on the West Coast. The objective of this stocktake is to support the Councils in influencing the Three Waters review process through:

- Presenting the current understanding of Council assets throughout the region
- Identifying gaps, opportunities and issues in meeting future requirements
- Designing a proposed framework which would meet central Government objectives but reflects the West Coast context for Three Waters delivery.

From the 15th to the 17th of July 2020 T+T met with the Three Waters teams at Buller, Grey and Westland District Councils and conducted interviews with the staff to get an understanding of the state of each council's Three Waters assets, along with the challenges the Councils face. The following is the summary of those interviews, Long Term Plan (LTP) and Annual Plan data.

A2 Existing assets

Overall the Three Waters asset management environment on the West Coast region is typically characterised by:

- Remote settlements
- Low population, low population density, and low growth
- High tourist demand
- Extreme weather conditions.

This has led to a stretched system overall with difficulties in recruiting and keeping skills within the Councils. The following outlines the size and relative differences between the council's assets and schemes.

A2.1 Buller District

Buller District Council are focused on taking a flexible approach with an aspiration to be "ahead of the curve". Overall, the expectations on quality have increased within the community. Buller have a number of small schemes with larger systems in Westport and Reefton.

Water Supply

- Over the last 15 years treated supplies have moved to having telemetry and automation, increasing the level of service and control.
- In Westport anecdotal evidence suggests that the high pressure (~111m head in Westport) is impacting on the reticulation system. Council staff noted that better pressure management system could help with the fragility of the old network.
- Many of the small communities with local schemes are resistant to chlorination and higher investment due to cost.

Wastewater

- Overall wastewater has been considered a lower priority and has a high number of reactive service requests.
- Council noted an opportunity to increase the use of flexible pipes for resilience subject to further investigation
- Council noted a need for more work on the trade-waste bylaw.
- Council has completed an initial study considering separation of grey water. Flat grades in the sewer network mean that removal of grey water has the potential to result in blockages (lower flow, low velocity). This would need to be considered if greywater separation was actively implemented.
- At Westport WWTP plant, pipe work to bridge is new with pump station with spare capacity.
- The wastewater network in Reefton suffers from root intrusion and streams running directly into and through the wastewater network.

Stormwater

- Council are issuing 'a lot of' unsafe swimming notices within the district i.e. stormwater is impacting on water quality.
- There is still a need to separate the grey water systems.

A2.2 Grey District

Grey District Council's (GDC) Three Waters infrastructure is generally centralised, with the wider Greymouth water supply network feeding from one intake at Coal Creek.

Water Supply

- Water supply is funded by a targeted rate charged to ratepayers able to connect to a GDC scheme, which funds operation and maintenance of the water supply scheme.

- GDC manages five water supply schemes in the Grey District for the sourcing, treatment and distribution of water. They are:
    - Wider Greymouth (Greymouth, Cobden, Blaketown, Boddytown, Karoro, South Beach, Paroa, Dobson, Taylorville and Stillwater). All treated water is from the Greymouth supply intake at Coal Creek with UV and chlorination
    - Runanga, Dunollie and Rapahoe – currently fed from the wider Greymouth scheme but there is a new plant in place without chlorination, which prevents water safety plan from being approved.
    - Blackball
- Kaiata scheme (subdivision) is private but Council note it is likely to transfer to Council ownership at some future point
- Privately owned water tanks are used in towns without reticulated schemes.

Wastewater

- The wastewater network is relatively new in Greymouth due to a grey water separation project.
- Council is still requiring private landowners to do on-property works to disconnect from the stormwater s system and reconnect to the wastewater system.
- Current works will result in all effluent from the wider Greymouth wastewater scheme going to a single WWTP at Preston with a single fully treated outfall at Johnston Street.
- Northern flows (from Cobden) will cross the Cobden bridge.

Stormwater

There are number of deferred renewals. Backlog has a current value of $7.2 million and $23 million worth of assets coming to the end of their life in the next 6 years (as of 2019). Increases in funding set out in of the long-term plan in order to clear the backlog by year 24.

Since 2008 the total length of stormwater pipes has increased from 84.5km to 129km predominantly where existing combined stormwater sewer pipes have become dedicated stormwater only pipes.

All urban systems with the exception of Greymouth CBD are designed to cope with a 1-in-5 year on average storm. Greymouth CBD system is only designed to withstand a 1 in 1 year storm event resulting in severe surface flooding. Physical constraints limit the potential for this to be improved without considerable capital investment.

A2.3 Westland District

Overall tourism driving is growth rather than good town planning compounding the relatively de-centralised and small populations. With COVID19 there is an opportunity to do some of the development while the tourists are not there. Westland has had some consent and regulatory breaches but currently meeting requirements.

Water Supply

Wastewater

Most of the WWTP plants are recently upgraded or new, with only one new build and another major upgrade to go. These two WWTP projects could have the largest costs and future implications. Westland has relatively large volumes of waste from dump stations in Hokitika and Haast, the wastewater sites at Hokitika and Franz Joseph need land remediation from flood damage.

There is a new medium-term WWTP solution at Franz Joseph, which has been completed and should last long enough to resolve how the community adjusts to flooding risk. However, currently the inflow is nearly the same as the evaporation due to the lack of tourism.

Stormwater

Westland shows considerable portion of capital investment needed in level of service for stormwater and wastewater.

A3 Challenges

These are the most pressing local challenges and there are elements that are common to each of the three Councils.

A3.1 Buller District

- Many of the other small communities are pushing back on additional spending and increased measure such as chlorination given a local impression that the local water is clean and readily available. Part of this is the corresponding increase in targeted rates with low cross-subsidising and external funding grants.
- Reefton and some of the other small settlements have not had the same level of investment and there are a number of asset condition and performance issues in Reefton that need resolving including high water leakage and high inflow and infiltration (I&I) in the wastewater network.

A3.2 Grey District

- The greater Greymouth network has high per person per day water usage mainly due to assumed leakage. There is also a concern that there is only one main water source for the greater Greymouth scheme and this is vulnerable at the Cobden Bridge crossing.
- With the separation of the grey water network Greymouth has a relatively good wastewater network but a stormwater network at the end of its life. There are also some residents not completing work on private property, which is resulting in contamination of the stormwater network and non-conformance at discharge outfalls.

A3.3 Westland District

- The remoteness of infrastructure (e.g. full day return trip to Haast from Hokitika) means that most activities in remote areas are more complicated and expensive, this is compounded by the lack of telemetry and automation. Having sparce population centres means that there is limited opportunities for economies of scale savings.
- Community expectations, predominantly with respect to the WWTP at Hokitika and general level of Three Water surface e.g. Stormwater in Hokitika and the sustainability of wastewater in the more tourist areas. There is a strong opposition to the current location and the WWTP pond process. The community sees the Greymouth WWTP option as best practice, but do not appreciate that it is operating at a different scale.

A3.4 Common Challenges

During interviews Three Waters and asset staff were asked the provide in order the biggest challenges to Three Waters infrastructure. The results are summarised in Appendix A Table 1.

Appendix A Table 1: Summary of challenges for Three Waters infrastructure

Challenge	Buller	Grey	Westland
1	Affordability – high emphasis on user pays, low level of subsidies	Affordability – limited loan funding available, reliance on subsidies	Affordability– limited loan funding available, reliance on subsidies
2	Labour resources	Water usage and leakages in network	Labour resources
3	Age and non-compliance of small rural water supply schemes	Condition and priority of the stormwater	Remoteness of infrastructure
4	Focus on Westport	Natural hazards	Natural hazards
5	Natural hazards	Labour resources	Community expectations

Key points to note include:

- Affordability and the ability to fund the necessary capital and operations activities is by far the most significant challenge to all Councils and outweighs all other concerns.
- The ability to get work done is the second most common and is generally highly rated by most staff within all Councils. Both internal and external resources are a concern. External resource related to the skill and availability of the contractor and labour force available.
- The third common challenge is considering natural hazards and increasing resilience this tends to come lower on the list as the likelihood is less certain and there are other funding priorities that limit the ability to introduce whole scale improvements e.g. replacement of all brittle pipes. However, the potential consequence and lessons from recent earthquakes, flooding and erosion continues to keep this challenge in the back of everyone's minds.

A4 Common themes

The following table summarise the responses to a number of common questions around resources, processes and operations.

Theme	Buller	Grey	Westland
Renewals	Prioritizing water supply particularly main to Westport	Predominantly in water supply and stormwater	Based on hotspots and age with known condition where available. 1970s AC big issue
Next big new capital project	Water main renewal into Westport - aim to reduce high leakage levels, may exacerbate pressure issues in network	Water Reservoirs	Hokitika WWTP – at end of life pressure to decommission ponds, most cost-efficient solution to work with industry discharge e.g. Westland milk or abattoir
Procurement	CCO Westreef for treatment & O&M. Cost plus contract, renewed beginning 2019 for 5 years	Paul Smith Earthmoving for treatment & O&M. have min skilled workforce in contract	CCO Westroads for treatment & O&M. Contract up for renewal, old contract outdated & restrictive, hoping for more competition.

Theme	Buller	Grey	Westland
Internal staffing	New asset mgmt. and delivery teams, not at full strength -recruiting for Project delivery	Not at full strength – recent engineer turnover No dedicated Asset management role	Not at full strength - Recruiting for Asset manager
Iwi Relationship	Positive interactions and participation with council decision making		
Asset Data	Asset Finder and GIS webmap. Have used historic as-builts etc to get good physical asset data. No proactive condition assessment (pick up surrounding assets with current works)	Asset Finder and GIS webmap. Good condition and asset data for wastewater & stormwater. anything pre 80's has issues in data.	Asset Finder and GIS webmap Medium confidence in data Lower in stormwater and water supply, higher in wastewater. Starting stormwater CCTV. No proactive condition assessment
Asset Management	Mostly reactive but new asset team improving this. Have self-tracked non-financial performance targets.	Wastewater, stormwater renewals are reactive, more proactive on wastewater. Targeting cast iron and old leaking pipes	Highly reactive planning. Low use of asset criticality
Growth	Steady but minimal growth. Don't collect developer contributions. No new connection fee, just reserves.	Current nil growth, future growth rural or holiday homes; minimal developer contributions collected	No Growth projects planned; minimal developer contributions collected
Funding	Well below loan cap - Emphasis on user pays, healthy depreciation reserves	At or near loan cap – high levels of historic deferred renewals	At or near loan cap – high reliance on subsidised funding e.g. Tourism Infrastructure Fund (TIF)
Aspirational	Add and improve the smaller schemes	Increase level of service for SW and secondary water supply source for resilience	Increase treatment skill and control

- **Renewals**
    - Generally reactive, with backlogs for most Councils in most Three Waters assets focus on major centres. High repairs and renewals potentially driving by poor pipe condition and high pressure in water supply. Renewals more balanced over all 3 waters than capital new spending.
- **Upcoming projects**
    - Mainly focused on water supply and wastewater with drinking water standards and WWTP consent big drivers for large capital works. Stormwater generally the neglected service with low design exceedance probability but limited capital new spend to increase level of service. Tide and river locking of stormwater service an issue.
- **Staffing**
    - High turnover and difficulty attracting staff. The Councils have a core of committed staff but have trouble keeping new talent and maintaining a full complement of staff.

- Often the gap is filled with consultants who have access to national and international resources. There is a desire within council leadership to generally do as much as possible in house to reduce any consultancy premium.
- Some concern that removing and centralising Three Waters staff may reduce team culture and synergies as current Asset Management staff oversee multiple asset types e.g. parks.

- **Iwi Relationship**
  - Iwi consultation on the councils – shared Kaumatua so some consistency in point of contact for main iwi.
- **Asset Data**
  - All Councils use the same asset management software, Asset Finder.
  - Buller have a very good understanding of their assets and asset registers
  - GDCGDC wastewater separation has allowed for good knowledge on Greymouth wastewater and stormwater through CCTV of the network
  - There did not seem to be sufficient budget within any of the Councils for a proactive CCTV and condition assessment programme.
- **Asset Management**
  - Buller and Westland have an Asset Manager role while Grey incorporates asset management functions into the engineering team.
  - All the Councils are primarily reactive and historical use age material and known faults to programme renewals
  - Councils are at various stages of starting to think about criticality and risk-based renewals, but it is still a maturing approach.
- **Growth**
  - Overall, there is little growth forecast. Developer contributions are not collected even if the ability is available.
- **Funding**
  - Westland and Grey primarily use loan funding for capital works and rely on subsidies and external funding. Buller has not had as much success with external funding and work to a lower debt level.
  - Buller have minimal cross subsidising which creates unique challenges in the smaller schemes around residents not wanting improvements due to anticipated additional cost.
- **Aspirations**
  - Aspirations are mainly around getting pipe renewals completed and back on track such that the network is reliable and O&M costs are minimised.
  - Other aspirations were dependant on individuals and quite variable.
  - There did not seem to be an aspiration around level of service for stormwater, just an acknowledgement that it is quite poor and there is annual flooding.

A5 Drinking Water Standards

Table showing the relative performance of each council against national drinking water standards.

Appendix A Table 2: DWSNZ compliance for council-owned water supplies

Council	Population connected to community water supply	Number of drinking water supplies	Treatment plants with DWSNZ Protozoal compliance	Treatment plants with DWSNZ Bacterial compliance	Distribution zones with DWSNZ Bacterial compliance	Water Safety Plans compliant with Health Act
Buller **% Pop**	7,210	7[1]	0 out of 4 0% [1]	1 out of 4 22%	3 out of 8	0 out of 7
Grey **% Pop**	11,700	3[3]	2 out of 2[2] 22%	2 out of 2	6 out of 7	2 out of 2 Have 2 others that are not operating
Westland **% Pop**	Unknown	9[1]	0 out of 9 0%	5 out of 8	5 out of 9	? out of 8
Total		19	2	8 out of 14	14 out of 24	2 out of 17

[1] Three Schemes untreated
[2] Blackball is a section 10 supply
[3] One scheme untreated

A5.1 Consents

See Appendix A7.3.3 for information on the DIA mandatory reporting measures.

The West Coast Regional Council (WCRC) noted that they are working through any issues with each Council and are generally happy with current state. However, WCRC are stretched with respect to monitoring and focus on compliance with existing consents. Larger consent applications are handled by consultants. Therefore, there are risks around future consents being evaluated on an ad-hoc basis leading to variability in consent outcomes. Fresh water reform and national standards for disposal of wastewater are likely to result in more stringent consent conditions in the future.

A6 Financial Comparison

A6.1 Current spending

The current budgeted vs actual funding application on Capital and Operations and Maintenance (O&M) have been presented below. The budgeted spend presented is based on the 2018 to 2028 LTP budgets in order to give a consistent approach. All values are from Council Annual Reports Activity funding impact statements. Generally, there is:

- Relatively high spends on water supply with low spend on stormwater.
- With the exception of GDC, O&M spend on wastewater is higher than water supply
- A general underspend on LTP budget for all except stormwater O&M.

Recent Capital Spend

Appendix A Table 3: Recent capital spend by West Coast Councils on water supply

Council	Last 5 years capital expenditure, budgeted ($'000)	Last 5 years capital expenditure, actual ($'000)	Variance in capital expenditure versus budgeted (%)
Buller	13,021	5,443	-58%
Grey	4,303	5,392	25%
Westland	7,179	10,418	45%
Total	24,503	21,253	-13%

Appendix A Table 4: Recent capital spend by West Coast Councils on wastewater

Council	Last 5 years capital expenditure, budgeted ($'000)	Last 5 years capital expenditure, actual ($'000)	Variance in capital expenditure versus budgeted (%)
Buller	3,536	3,756	6%
Grey	3,948	2,647	-33%
Westland	11,097	4,837	-56%
Total	15,581	11,240	-40%

Appendix A Table 5: Recent capital spend by West Coast Councils on stormwater

Council	Last 5 years capital expenditure, budgeted ($'000)	Last 5 years capital expenditure, actual ($'000)	Variance in capital expenditure versus budgeted (%)
Buller	1,118	906	-19%
Grey	2,295	2,267	-1%
Westland	2,430	1,549	-36%
Total	5,843	4,722	-19%

Recent O&M Spend

Appendix A Table 6: Recent O&M spend by West Coast Councils on water supply

Council	Last 5 years O&M expenditure, budgeted ($'000)	Last 5 years O&M expenditure, actual ($'000)	Variance in O&M expenditure versus budgeted (%)
Buller	8,902	8,829	-1%
Grey	7,983	7,592	-5%
Westland	10,955	10,452	-5%
Total	27,840	26,873	-3%

Appendix A Table 7: Recent O&M spend by West Coast councils on wastewater

Council	Last 5 years O&M expenditure, budgeted ($'000)	Last 5 years O&M expenditure, actual ($'000)	Variance in O&M expenditure versus budgeted (%)
Buller	7,591	7,115	-6%
Grey	10,384	9,785	-6%
Westland	3,308	4,003	21%
Total	21,283	20,903	-2%

Appendix A Table 8: Recent O&M spend by West Coast councils on stormwater

Council	Last 5 years O&M expenditure, budgeted ($'000)	Last 5 years O&M expenditure, actual ($'000)	Variance in O&M expenditure versus budgeted (%)
Buller	1,252	1,304	4%
Grey	2,637	2,846	8%
Westland	1,339	1,747	30%
Total	5,228	5,897	13%

A6.2 Forecast spending

Appendix A Table 9: Committed spend by Councils from 2018-2028 LTP's

Council	Total planned water supply capital expenditure ($'000)	Total capital wastewater expenditure ($'000)	Total planned stormwater capital expenditure ($'000)
Buller	10,548	9,939	2,445
Grey	9,755	4,338	9,145
Westland	8,555	6,965	3,755
Total	28,858	21,242	15,345

Appendix A Table 10: Buller LTP spending types

	LoS ($000)	Renewal ($000)	Growth ($000)
Water Supply	3,005	6,509	-
Wastewater	220	9,779	-
Stormwater	150	3,605	-

Appendix A Table 11: Grey LTP spending types

	LoS ($000)	Renewal ($000)	Growth ($000)
Water Supply	46	9,176	
Wastewater	-	4,063	-
Stormwater	277	8,237	-

Figure Appendix A.1: Westland LTP spending types

A6.3 New compliance spending

The Three Waters Review (2018)[5] stated that the West Coast had seven WTP that were affected with an estimated probable capital cost of $1.3m-$2.3m and operating cost of $0.1-$0.14m/yr.

It is estimated that 1,600 - 1,900 Self Supplies are non-compliant on the West Coast with an estimated capital expenditure of $5.5 - $8.8m and operating costs of $1.2 - $1.9m/year excluding WSP costs. In addition, the WSP capital cost of $8 - $10 m and Annual WSP review cost of $1.7 - $2.1m/yr. The report did not break down these estimates by council.

Three Waters Review (2018)[6] Stated that the West Coast had ten WWTP that were affected by the NPS freshwater with an estimated probable capital cost of $120m - $180m and operating cost of $3.1m - $4.7m.

[5] Additional Analysis on Drinking Water Costs for Compliance, Beca (November 2019):

[6] Three Waters Review: Cost Estimates for upgrading Wastewater Treatment Plants to meet Objectives of the NPS Freshwater, Final Report, GHD-Boffa Miskell (September 2018):

A7 Background Information

A7.1 Asset Stock

Appendix A Table 12: Water supply asset stock

Council	Schemes	Pipe Network (km)	Reservoirs	Pump Stations	Supply (ML per year)	Connections
Buller	8					
Grey	3 (70 private)	205	15	15	2,600	4686
Westland	9	176	40	11		2620

Appendix A Table 13: Wastewater asset stock

Council	Schemes	Pipe Network (km)	Pump Stations	Manholes /flush points	Connections
Buller	3				
Grey*	6	40	?	-	4824
Westland	4	78	10	734	3791

*Grey dispose to Land x1 Water x4 and Ocean x1

Appendix A Table 14: Stormwater asset stock

Council	Schemes	Pipe Network (km)	Pump Stations	Manholes /sumps	Connections
Buller					
Grey	12	115	5	-	~5800 (estimated number)
Westland	14	52	6	1228	508

A7.2 Value of assets

A7.2.1 Grey District

Asset Group	Optimised Replacement Value	Modified Depreciated Replacement Value	Modified Annual Depreciation	Modified Accumulated Depreciation
Water Supplies	$45,407,378.97	$25,203,978.38	$695,405.86	$ 20,203,400.59
Waste Water	$74,708,232.76	$56,693,749.16	$1,132,179.70	$18,014,483.60
Stormwater	$74,733,871.19	$34,005,117.64	$884,417.86	$40,728,753.55
Totals (Utilities)	$194,849,482.92	$115,902,845.18	$2,712,003.42	$78,946,637.74

A7.2.2 Westland District

Asset	Description	Replacement value	% of total
Water Supplies	Water extraction, treatment and distribution	$38.5 M	8.9%
Waste Water	Wastewater collection, treatment and discharge	$22.3M	5.2%
Stormwater	Stormwater collection and discharge	$19.6M	4.6%
Other	Roads and footpaths, Parks and Reserves, Community Buildings, Solid Waste, Cycle Trail	$348.8M	81.3%

A7.2.3 Buller District

A7.3 Age/condition of assets

A7.3.1 Grey District

Appendix A Table 15: Grey District water supply assets

Community	Average of Age of pipes (years)	Length of pipes (metres)	Proportion of Total Length	Proportion of Total Value
Ahaura	46	1,031	1%	1%
Blackball	11	1,287	1%	1%
Blaketown	64	9,978	8%	7%
Cobden	58	20,355	16%	14%
Dobson/ Taylorville	45	5,433	4%	4%
Greymouth	47	58,655	46%	47%
Iveagh Bay	10	1,618	1%	1%
Karoro	29	6,968	5%	6%
Moana	27	4,774	4%	4%
Runanga	26	11,367	9%	9%
Rural	23	3,917	3%	3%
South Beach/ Paroa	14	4,010	3%	3%
Stillwater	50	2	0%	0%
Grand Total	**42**	**128,795**	**100%**	**100%**

A7.3.2 Westland District

Appendix A Table 16: Westland District asset useful life (LTP)

Asset	% Currently exceeding useful life	% Exceeding useful life between Years 1-10	% Exceeding useful life between Years 11-20	% Exceeding useful life between Years 21-30
Stormwater	0.37% $74,729	3% $520,219	4% $796,746	3% $683,904
Water	2% $1,534,105	13% $8,750,610	18% $11,825,229	8% $5,044,390
Sewerage	15% $3,937,941	30% $7,702,250	18% $4,696,472	3% $646,605

Appendix A Table 17: Westland District asset renewals spend (LTP)

Asset	Renewals spend in Years 1-10	Renewals spend in Years 11-20	Renewals spend in Years 21-30
Stormwater	$2.069 million	$700,000	$60[illegible],000
Water	$6.420 million	$15.507 million	$6.89[illegible] million
Sewerage	$1.336 million	$9.172 million	$[illegible].073 million
Bridges	$1.333 million	$1.333 million	$[illegible].666 million

A7.3.3 Buller District

Unknown?

A7.4 Performance

A7.4.1 Water Supply

Performance Measure	Unit	Buller 2018/2019	Grey 2018/2019	Westland 2018/2019
Connections	#		4,694	2640
1a) bacteria compliance	Per scheme	[illegible]/9	Achieved	5/9
1b) Protozoa compliance	Compliant scheme/schemes	2/9	Achieved	0/9
2) % water loss	%	58% (Westport only)	Not measured	Not measured
3a) Urgent call out time	hours	<2hrs	0.83	Not measured
3b) Resolution of urgent call outs	hours	<2hrs	2.13	24% of time <12hrs
3c) attendance non urgent call outs	hours	24hrs median	4.31	Not measured
3d) resolution non urgent call outs	hours	120hrs median	4.27	72% of time <12hrs
4a) Complaints - clarity	per/1000 connections	0	Total 11.9 per 1000 connections Mainly outages Satisfaction survey 73% Clarity 92% Pressure flow 64% overall	3.4
4b) Complaints - taste	per/1000 connections	0.25		0.76
4c) Complaints - odour	per/1000 connections	0		0
4d) Complaints – pressure/flow	per/1000 connections	0.75		1.51
4e) Complaints – continuity	per/1000 connections	0.5		9.85
4f) Complaints - response	per/1000 connections	1.49		0
5) consumption per day per resident	l/p/d	414 Westport 716 Reefton	812	500

A7.4.2 Wastewater

Performance Measure	Unit	Buller 2018/2019	Grey 2018/2019	Westland 2018/2019
Connections	#		4,832	2065
1) Dry weather overflows	per/1000 connections	3	2.3	4.7
2a) abatement notice	#	0	0	0
2b) infringement notice	#	0	0	1
2c) enforcement orders	#	0	0	1
2d) convictions	#	0	0	0
3a) attendance time	hours	1 median	0.67	Not Measured
3b) resolution time	hours	24 median	1.52	42% < 4hrs
4a) Complaints - odour	per/1000 connections	0.8	8.9 per 1000 No odour	2.91
4b) Complaints - faults	per/1000 connections	0	Mainly blockages or discharge to property	5.81
4c) Complaints - blockages	per/1000 connections	2.3		7.26
4d) Complaints – response	per/1000 connections	0.3		0

A7.4.3 Stormwater

Performance Measure	Unit	Buller 2018/2019	Grey 2018/2019	Westland 2018/2019
Properties/connections	#		6195	434
1a) Flooding events	#	3	0 >1:50	1
1b) Habitable floors affected	Per event Per 1000 properties	0	0	6.9
2a) Abatement notice	#	0	0	0
2b) infringement notice	#	0	0	0
2c) enforcement orders	#	0	0	0
2d) convictions	#	0	0	0
3) Response time	hours	1hr	N/A	Not Measured
4) Complaints	per/1000 connection	0.39	4.7 Sewer discharging to stormwater	73.7

Appendix B: Service delivery structures examples

B1 Nelson Regional Sewerage Business Unit (Shared Services)

The Nelson Regional Sewerage Scheme (NRSS), commissioned in 1983, is a joint venture between Tasman District Council and Nelson City Council. The scheme serves the residential areas of Stoke, Tahunanui, Richmond, Mapua and the Waimea Basin. It also serves Turners and Growers Stoke site, Alliance Group Nelson and Nelson Pine Industries.

The NRSS is managed by the Nelson Regional Sewerage Business Unit (NRSBU) with oversight from a joint committee comprising representatives form Nelson City Council, Tasman District Council and an independent director. The committee also has an industry representative and iwi representation. The general manager is supported by staff from Nelson City Council (engineering, project and contact management, accounting and administration) and Tasman District Council (Treasury).

The NRSBU was established in 2000 through the development of a *Memorandum of Understanding (MoU) in Respect of the Establishment and Operation of the Nelson Regional Sewerage Business Unit* between Nelson City Council and Tasman District Council. The MoU defines the requirements for governance, funding, capital expenditure, business planning, accounting, reporting, asset ownership, establishment of a Customer's group and a mission statement and key engineering and financial objectives. The MoU also provided guidelines for systems and procedures to be put in place to ensure effective governance, asset management and financial control.

B2 Northland Transportation Alliance (Shared Services)

The Northland Transportation Alliance is a shared services business unit involving Whangarei, Far North and Kaipara District Councils and Waka Kotahi. Some key aspects of the alliance are as follows:

- Oversight is provided by the Alliance Leadership Group, consisting of the CEs of the councils and the regional director for NZTA.
- A new position of alliance manager was created to lead day-to-day operations.
- Staff remain employed by their parent organisation but would be 'seconded' or otherwise transferred to the alliance. The staff of the alliance would be substantially co-located in Whangarei but with a presence in the regions.
- Waka Kotahi would also co-locate but would not be part of the formalised business unit.

The Northland Transportation Alliance is reported to be achieving key outcomes

- A more engaged and capable workforce delivering superior asset management;
- Improved transport / customer outcomes, enabling investment and social opportunities;
- Improved regional strategy, planning and procurement; and
- More affordable transport infrastructure.

B3 Wellington Water Limited (Asset Managing CCO)

Wellington Water Limited (WWL) is a Council Control Organisation jointly owned by Wellington City Council, Porirua City Council, Hutt City Council, Upper Hutt City Council Greater Wellington Regional Council and South Wairarapa District Council. WWL manage assets on behalf of the owner Councils guided by a Statement of Intent and a range of strategic and operational documents that set out how management will take place.

A key feature of the asset managing CCO model is the need for the CCO to secure funding from owning Council(s)

Figure Appendix B.1: Wellington Water Limited structure

B4 Watercare Services Limited (Asset owning CCO)

Watercare Services Limited is an asset owning CCO 100% owned by Auckland Council, refer

Figure Appendix B.2. They manage water supply (treatment, bulk reticulation and supply to end users) and wastewater (reticulation and treatment) across Auckland. Stormwater is managed directly by Auckland Council.

Figure Appendix B.3: Watercare Services Limited governance structure

Watercare do not receive any funding from Auckland Council, the government or pay a dividend to Auckland Council (refer Figure Appendix B.2). Funding is received from service charges, growth charges and via borrowing for major projects.

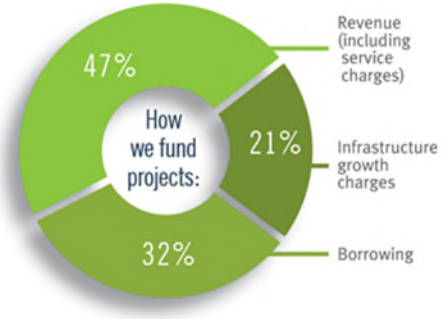

Figure Appendix B.4: Watercare funding sources (watercare.co.nz)

B5 Scottish Water (water services organisation)

Scottish Water provides water services across Scotland within a framework structured as follows (refer to Figure Appendix B.4).

- **Scottish Water** - Responsible for providing water and waste water services to household customers and wholesale Licensed Providers. Delivers the investment priorities of Ministers within the funding allowed by the Water Industry Commission for Scotland.

  Scottish Water bill unmetered households premises through Council Tax (rates). Metered properties are billed directly.
- **Water Industry Commission for Scotland -** Economic regulator. Sets charges and reports on costs and performance.
- **Drinking Water Quality Regulator** - Responsible for protecting public health by ensuring compliance with drinking water quality regulations.
- **Scottish Environment Protection Agency -** Responsible for environmental protection and improvement.
- **Scottish Public Services Ombudsman -** Responsible for investigating complaints about public services in Scotland, including Scottish Water, once the services' complaints procedure has been completed and sharing lessons from complaints to improve the delivery of public services.

Figure Appendix B.4: Scottish Water - governance/regulatory oversight